

Content Moderation

SDK Reference

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1 Introduction to Moderation SDK

Overview of Content Moderation

Content Moderation adopts image, text, audio, and video detection technologies that detect pornography. This reduces potential business risks.

Content Moderation provides services through open application programming interfaces (APIs). You can obtain the inference results by accessing and calling APIs in real time. It helps you collect key data automatically and build an intelligent service system, thereby improving service efficiency.

SDK Overview

Content Moderation Software Development Kit (Moderation SDK for short) encapsulates the RESTful APIs provided by Content Moderation to simplify application development. You can add dependencies or download SDKs to call APIs to use Content Moderation.

Mappings Between Services and APIs

Table 1-1 lists the mappings between the Content Moderation sub-services and APIs.

Table 1-1 Mappings between services and APIs

Service	API
Text Moderation (V3)	POST /v3/{project_id}/moderation/text
Image Moderation (V3)	POST /v3/{project_id}/moderation/image
Creating an Audio Moderation Job	POST /v3/{project_id}/moderation/audio/jobs
Querying an Audio Moderation Job	GET /v3/{project_id}/moderation/audio/jobs/{job_id}
Creating a Video Moderation Job	POST /v3/{project_id}/moderation/video/jobs

Service	API
Querying a Video Moderation Job	GET /v3/{project_id}/moderation/video/jobs/{job_id}

2 Applying for a Service

Before using a service, you need to apply for it.

For details about how to apply for a service, see [Applying for a Service](#) in the *Content Moderation API Reference*.

NOTE

If you do not apply for a service, the following error message is displayed:

```
ClientRequestException {  
  httpStatusCode: 400  
  errorCode: ModelArts.4204  
  errorMsg: Request API error. The API 1c641f1e-5418-4997-a82e-f5869d4eae2 is not  
  subscribed.  
  requestId: 7f7640da09335e93290f95d0d0247a27  
}
```


3 Obtaining Authentication Information

- Step 1** Log in to the [Content Moderation console](#).
 - Step 2** Hover the cursor on the username and select **My Credentials** from the drop-down list.
 - Step 3** Click the **Access Keys** tab and then click **Add Access Key**.
 - Step 4** Enter the verification code sent to your mail or mobile phone.
 - Step 5** Click **OK** to download the AK/SK of the authentication account. The AK/SK data is saved in a local file. Keep the file secure.
- End

4 Preparing the Environment

Table 4-1 lists the environments you need to prepare when using Content Moderation SDKs of different programming languages.

Table 4-1 Development environment

Programming Language	Item	Description
Java	Installing JDK	An environment used for developing Java applications. Java JDK 1.8 and later versions are supported. You are advised to use the Java SDK by installing dependencies through Apache Maven.
Python	Installing Python	Python 3.3 and later versions are supported.
.NET	Installing .NET	.NET Standard 2.0 and later versions, and C# 4.0 and later versions are supported.
Go	Installing GO	Go 1.14 and later versions are supported.
PHP	Installing PHP	The php.7.x version is recommended.
Node.js	Installing Node.js	The Node.js 8.x version is supported.

5 Using the SDK (Java)

5.1 Preparing a Java Development Environment

Moderation Java SDK uses Java SE Development Kit 8 (JDK 8) or later. The following uses JDK 8 (Windows x64) running on Windows 7 as an example. If you have downloaded the JDK and configured the environment, skip this section.

Step 1 [Download the JDK file.](#)

Step 2 After the JDK file is downloaded, install the JDK as prompted. For example, install the JDK to the **C:\Program Files\Java\jdk1.8.0_131** directory on the local PC.

Step 3 Right-click **Computer**, choose **Properties > Advanced System Settings > Environment Variables**, and perform the following operations to configure Java environment variables:

1. Create system variable **JAVA_HOME** whose value is the JDK installation path.
2. Add **%JAVA_HOME%\bin;%JAVA_HOME%\jre\bin** to **Path**. Separate multiple values with semicolons (;).
3. Create system variable **CLASSPATH** whose value is **%JAVA_HOME%\lib\dt.jar;%JAVA_HOME%\lib\tools.jar**.

Step 4 Open the command line interface (CLI) and run **java -version**. If the information shown in [Figure 5-1](#) is displayed, the configuration is successful.

Figure 5-1 Java version information

```
C:\>java -version
java version "1.8.0_131"
Java(TM) SE Runtime Environment (build 1.8.0_131-b11)
Java HotSpot(TM) 64-Bit Server VM (build 25.131-b11, mixed mode)
```

----End

5.2 Obtaining and Installing the Java SDK

You are advised to use the Java SDK for Content Moderation by installing dependencies through Apache Maven.

- Step 1** **Download** and **install** Apache Maven on your operating system.
- Step 2** After installing and configuring Maven, run the **mvn -v** command. Maven is installed successfully if the following information is displayed.

```
D:\>mvn -v
D:\
Apache Maven 3.3.9 (bb52d8502b132ec0a5a3f4c09453c07478323dc5; 2015-11-11T00:41:47+08:00)
Maven home: D:\maven\apache-maven-3.3.9\bin\..
Java version: 1.8.0_262, vendor: Huawei Technologies Co., Ltd
Java home: D:\develop\jdk-1.8\jre
Default locale: zh_CN, platform encoding: GBK
OS name: "windows 10", version: "10.0", arch: "amd64", family: "dos"
```

- Step 3** Add dependencies to an existing Maven project or use an integrated development environment (IDE) to create a Maven project.

To create a Maven project using IntelliJ IDEA (an example IDE), perform the following steps (skip if you already have a Maven project):

1. Start IntelliJ IDEA.
2. Choose **File > New > project...**
3. In the displayed **New Project** dialog box, click **Maven** and then **Next**.
4. Specify **GroupId** and **ArtifactId**, and click **Next**.
5. Specify **Project name** and **Project location**, and click **Finish**.

- Step 4** Add dependency items to the **pom.xml** file of the Maven project.

The following is the dependency for Content Moderation SDK 3.1.175:

```
<dependency>
  <groupId>com.huaweicloud.sdk</groupId>
  <artifactId>huaweicloud-sdk-moderation</artifactId>
  <!-- You can obtain the latest version from the SDK Center. -->
  <version>3.1.175</version>
</dependency>
```

The following sample code uses the fastjson dependency (ignore and delete it if it is not required):

```
<dependency>
  <groupId>com.alibaba</groupId>
  <artifactId>fastjson</artifactId>
  <version>1.2.70</version>
</dependency>
```

----End

5.3 SDK Calling Example

5.3.1 Moderation (Text)

5.3.1.1 Text Moderation (V3)

1. This section describes how to use the Text Moderation SDK by AK/SK authentication.

In the sample code, you can use the `withText` method of the `TextDetectionDataReq` class to configure the text to be detected. After the configuration is complete, run the code.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.core.region.Region;
import com.huaweicloud.sdk.moderation.v3.*;
import com.huaweicloud.sdk.moderation.v3.model.*;

public class RunTextModerationSolution {

    public static void main(String[] args) {
        // Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK
        // and store them in the configuration file or environment variables.
        // In this example, the AK and SK are stored in environment variables for identity authentication.
        // Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
        // HUAWEICLOUD_SDK_SK.
        String ak = System.getenv("HUAWEICLOUD_SDK_AK");
        String sk = System.getenv("HUAWEICLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the service region, for
            // example, ap-southeast-3.
            .build();
        RunTextModerationRequest request = new RunTextModerationRequest();
        TextDetectionReq body = new TextDetectionReq();
        TextDetectionDataReq databody = new TextDetectionDataReq();
        databody.withText("test");
        body.withData(databody);
        body.withEventType("comment");
        request.withBody(body);
        try {
            RunTextModerationResponse response = client.runTextModeration(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

2. If **200** is displayed on the console, the code is successfully executed. The **text moderation result** is displayed on the console.

```
class RunTextModerationResponse {
    requestId: 308b6ad2740e51de73597da9fdc94ee1
    result: class TextDetectionResult {
        suggestion: pass
    }
}
```

```
        label: normal
        details: []
    }
}
```

5.3.2 Moderation (Image)

5.3.2.1 Image Moderation (V3)

1. This section describes how to use the Image Moderation SDK by AK/SK authentication.

In the sample code, you can use the `withUrl` or `withImage` method of the `ImageDetectionReq` class to set image information (either the **image** or **url** parameter). The following uses **url** as an example. After the configuration is complete, run the code.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.moderation.v3.region.ModerationRegion;
import com.huaweicloud.sdk.moderation.v3.*;
import com.huaweicloud.sdk.moderation.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CheckImageModerationSolution {

    public static void main(String[] args) {
        // Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK
        // and store them in the configuration file or environment variables.
        // In this example, the AK and SK are stored in environment variables for identity authentication.
        // Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
        // HUAWEICLOUD_SDK_SK.
        String ak = System.getenv("HUAWEICLOUD_SDK_AK");
        String sk = System.getenv("HUAWEICLOUD_SDK_SK");
        String projectId = "project_id";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the service region, for
            //example, ap-southeast-3.
            .build();
        CheckImageModerationRequest request = new CheckImageModerationRequest();
        ImageDetectionReq body = new ImageDetectionReq();
        List<String> listbodyCategories = new ArrayList<>();
        listbodyCategories.add("porn");
        body.withUrl("http://www.xxx.xxx");
        body.withCategories(listbodyCategories);
        body.withEventType("head_image");
        request.withBody(body);
        try {
            CheckImageModerationResponse response = client.checkImageModeration(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        }
    }
}
```

```
    } catch (RequestTimeoutException e) {  
        e.printStackTrace();  
    } catch (ServiceResponseException e) {  
        e.printStackTrace();  
        System.out.println(e.getHttpStatusCode());  
        System.out.println(e.getErrorCode());  
        System.out.println(e.getErrorMsg());  
    }  
}
```

2. If **200** is displayed on the console, the code is successfully executed. The **image moderation result** is displayed on the console.

```
class CheckImageModerationResponse {  
    requestId: 63b6b19eb9fa1db05d2f87f970472995  
    result: class ImageDetectionResult {  
        suggestion: block  
        category: image_text  
        details: [class ImageDetectionResultDetail {  
            suggestion: block  
            category: image_text  
            confidence: 1.0  
            faceLocation: null  
            qrLocation: class QRLocationDetail {  
                topLeftX: 74  
                topLeftY: 66  
                bottomRightX: 151  
                bottomRightY: 142  
            }  
            qrContent: http://xxxxxxxxxx  
            segments: null  
            label: qr_code  
        }, class ImageDetectionResultDetail {  
            suggestion: block  
            category: image_text  
            confidence: 0.98779297  
            faceLocation: null  
            qrLocation: null  
            qrContent: null  
            segments: null  
            label: ad  
        }, class ImageDetectionResultDetail {  
            suggestion: block  
            category: image_text  
            confidence: 1.0  
            faceLocation: null  
            qrLocation: null  
            qrContent: null  
            segments: null  
            label: qr_code  
        }]  
        ocrText: xxxxxxxxx  
    }  
}
```

5.3.3 Moderation (Video)

5.3.3.1 Creating a Video Moderation Job

1. This section describes how to create a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withUrls` of the `RunCreateVideoModerationJobRequest` class to configure the URL of the video to be reviewed (only the URL mode is supported). After the configuration is complete, run the code.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.moderation.v3.region.ModerationRegion;
import com.huaweicloud.sdk.moderation.v3.*;
import com.huaweicloud.sdk.moderation.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class RunCreateVideoModerationJobSolution {

    public static void main(String[] args) {
        // Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK
        // and store them in the configuration file or environment variables.
        // In this example, the AK and SK are stored in environment variables for identity authentication.
        // Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
        // HUAWEICLOUD_SDK_SK.
        String ak = System.getenv("HUAWEICLOUD_SDK_AK");
        String sk = System.getenv("HUAWEICLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the service region, for
            // example, ap-southeast-3.
            .build();
        RunCreateVideoModerationJobRequest request = new RunCreateVideoModerationJobRequest();
        VideoCreateRequest body = new VideoCreateRequest();
        List<VideoCreateRequest.AudioCategoriesEnum> listbodyAudioCategories = new ArrayList<>();
        listbodyAudioCategories.add(VideoCreateRequest.AudioCategoriesEnum.fromValue("porn"));
        List<VideoCreateRequest.ImageCategoriesEnum> listbodyImageCategories = new ArrayList<>();
        listbodyImageCategories.add(VideoCreateRequest.ImageCategoriesEnum.fromValue("porn"));
        VideoCreateRequestData databody = new VideoCreateRequestData();
        databody.withUrl("http://xxx.xx.xxxx")
            .withFrameInterval(5.5f);
        body.withCallback("http://xxx.xx.xxxx");
        body.withAudioCategories(listbodyAudioCategories);
        body.withImageCategories(listbodyImageCategories);
        body.withEventType(VideoCreateRequest.EventTypeEnum.fromValue("default"));
        body.withData(databody);
        request.withBody(body);
        try {
            RunCreateVideoModerationJobResponse response =
            client.runCreateVideoModerationJob(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

2. The console returns the submission result of the creation request and the **video moderation job creation result**.


```
class RunCreateVideoModerationJobResponse {  
    requestId: 5e353de1badd90049a2ac3d2e3ee925e  
    jobId: 01663171200_48ce5a21498e47af8f2a49773c3d0fce  
}
```

5.3.3.2 Querying a Video Moderation Job

1. This section describes how to query a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withJobId` of the `RunQueryVideoModerationJobRequest` class to configure the ID of the review task. After the configuration is complete, run the code.

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.moderation.v3.region.ModerationRegion;  
import com.huaweicloud.sdk.moderation.v3.*;  
import com.huaweicloud.sdk.moderation.v3.model.*;  
  
public class RunQueryVideoModerationJobSolution {  
  
    public static void main(String[] args) {  
        // Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK  
        // and store them in the configuration file or environment variables.  
        // In this example, the AK and SK are stored in environment variables for identity authentication.  
        // Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and  
        // HUAWEICLOUD_SDK_SK.  
        String ak = System.getenv("HUAWEICLOUD_SDK_AK");  
        String sk = System.getenv("HUAWEICLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        ModerationClient client = ModerationClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the service region, for  
            // example, ap-southeast-3.  
            .build();  
        RunQueryVideoModerationJobRequest request = new RunQueryVideoModerationJobRequest();  
        request.withJobId("jobId");  
        try {  
            RunQueryVideoModerationJobResponse response =  
                client.runQueryVideoModerationJob(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

2. The console returns the submission result of the query request and the **video moderation job query result**.

```
class RunQueryVideoModerationJobResponse {  
    requestId: a6dcb5c9f993efb977c8898e1ef91c87
```

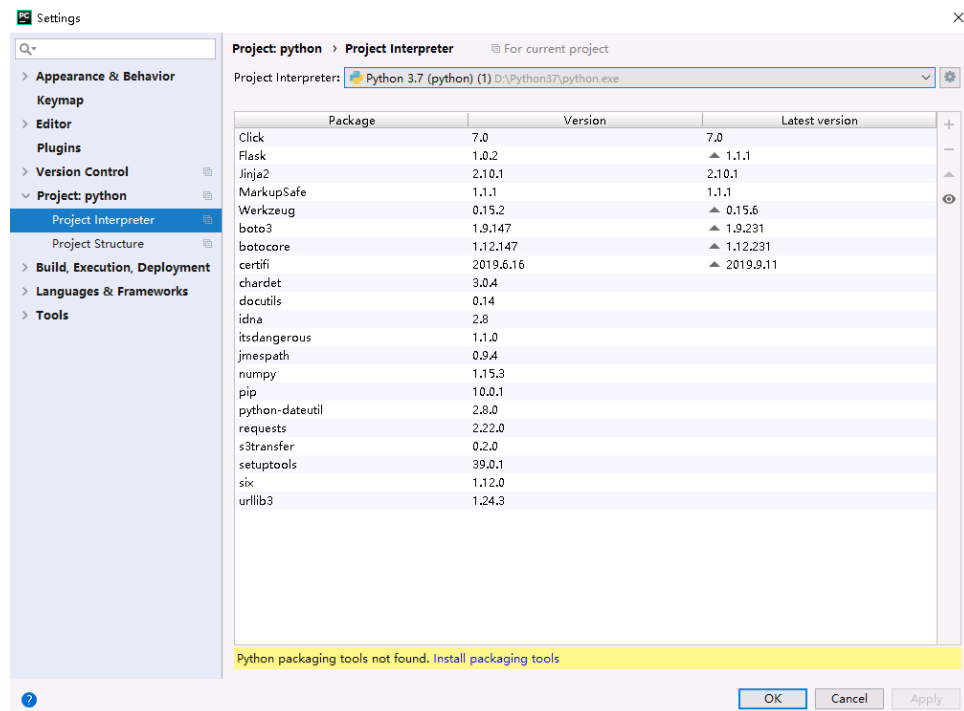
```
jobId: 01663171200_48ce5a21498e47af8f2a49773c3d0fce
status: running
requestParams: class VideoModerationResultRequestParams {
  data: class VideoModerationResultRequestParamsData {
    url: http://xxx.xx.xxxx
    frameInterval: 5
  }
  eventType: default
  imageCategories: [porn, image_text, terrorism]
  audioCategories: [ad, porn]
  callback: http://xxx.xx.xxxx
}
createTime: null
updateTime: 2022-09-15T14:08:06.006Z
result: null
}
```

6 Using the Python SDK

6.1 Preparing a Python Development Environment

To use the Python SDK of Content Moderation, you need to configure the Python development environment.

1. Download Python of a proper version from [Python official website](#) and install it. Python3.3 or later is recommended. This section uses Python 3.7 as an example.
2. Download the latest version of PyCharm from [PyCharm's official website](#).
3. Start the PyCharm development tool and choose **File > Settings > Project Interpreter** to configure the Python environment.
4. Select the Python installation path. See [Figure 6-1](#). After selecting the target Python, click **Apply** at the bottom of the page to complete the configuration.

Figure 6-1 Configuring the python environment using PyCharm

6.2 Obtaining and Installing the Python SDK

To obtain and install the Python SDK, you are advised to use pip commands or PyCharm. You need to install the **huaweicloudsdkcore** and **huaweicloudsdkmoderation** packages as follows:

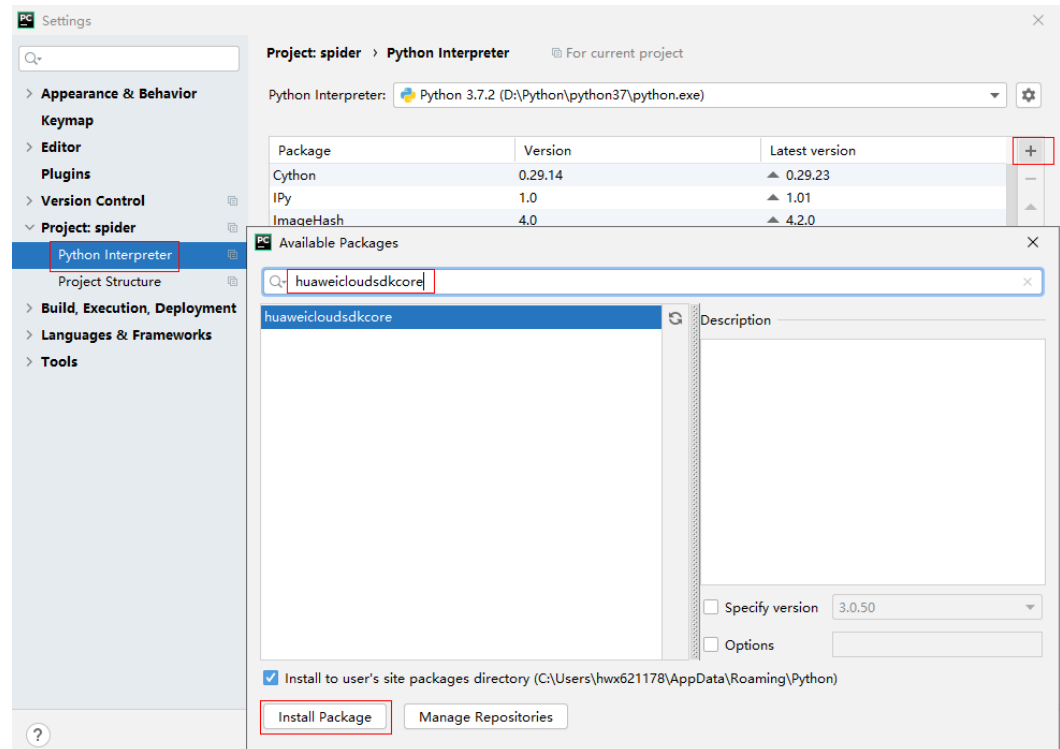
Install the Python SDK using pip commands:

```
# Install the huaweicloudsdkcore package.  
pip install huaweicloudsdkcore
```

```
# Install the huaweicloudsdkmoderation package.  
pip install huaweicloudsdkmoderation
```

To install the Python SDK using PyCharm, perform the following steps:

1. Start PyCharm and choose **File > Settings...**
2. Choose **Python Interpreter**.
3. Click **+**, search for **huaweicloudsdkcore** and **hwa**, select the package **.NEweicloudsdkmoderation**, and click **Install Package** in the lower left corner to install it.

Figure 6-2 Installing the Python SDK for Content Moderation using PyCharm

6.3 SDK Calling Example

6.3.1 Moderation (Text)

6.3.1.1 Text Moderation (V3)

1. This section describes how to use the Text Moderation SDK by AK/SK authentication.

Change the value of **text** in **TextDetectionDataReq** in the sample code to the text to be detected. Then run the code.

```
# coding: utf-8
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkmoderation.v3.region.moderation_region import ModerationRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkmoderation.v3 import *
import os

if __name__ == "__main__":
    # Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
    # store them in the configuration file or environment variables.
    # In this example, the AK and SK are stored in environment variables for identity authentication.
    # Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
    # HUAWEICLOUD_SDK_SK.
    ak = os.getenv("HUAWEICLOUD_SDK_AK")
    sk = os.getenv("HUAWEICLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \
    client = ModerationClient.new_builder() \
```

```
.with_credentials(credentials) \
.with_region(ModerationRegion.value_of("xxx")) \
.build()
# Replace xxx with the service region, for example, ap-southeast-3.
try:
    request = RunTextModerationRequest()
    databody = TextDetectionDataReq(
        text="test"
    )
    request.body = TextDetectionReq(
        data=databody,
        event_type="comment"
    )
    response = client.run_text_moderation(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

2. If **200** is displayed on the console, the code is successfully executed. The **text moderation result** is displayed on the console.

```
{"request_id": "d81702cfd3599e103030c3d52d6f955f", "result": {"suggestion": "pass", "label": "normal", "details": []}}
```

6.3.2 Moderation (Image)

6.3.2.1 Image Moderation (V3)

1. This section describes how to use the Image Moderation SDK by AK/SK authentication.

Change the value of **url** or **image** in **ImageDetectionReq** in the sample code to configure the image information. Then run the code.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkmoderation.v3.region.moderation_region import ModerationRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkmoderation.v3 import *
import os

if __name__ == "__main__":
    # Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
    # store them in the configuration file or environment variables.
    # In this example, the AK and SK are stored in environment variables for identity authentication.
    # Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
    # HUAWEICLOUD_SDK_SK.
    ak = os.getenv("HUAWEICLOUD_SDK_AK")
    sk = os.getenv("HUAWEICLOUD_SDK_SK")
    projectId = "project_id"

    credentials = BasicCredentials(ak, sk, projectId) \

    client = ModerationClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(ModerationRegion.value_of("xxx")) \
        .build()
    # Replace xxx with the service region, for example, ap-southeast-3.
    try:
        request = CheckImageModerationRequest()
        listCategoriesbody = [
            "porn"
        ]
        request.body = ImageDetectionReq(
```

```
url="http://www.xxxx.xxx",
categories=listCategoriesbody,
event_type="head_image"
)
response = client.check_image_moderation(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

2. If **200** is displayed on the console, the code is successfully executed. The **image moderation result** is displayed on the console.

```
{"request_id": "69b424920668cb15e6d25eef879a023b", "result": {"suggestion": "block", "category": "image_text", "details": [{"suggestion": "block", "category": "image_text", "confidence": 1.0, "qr_location": {"top_left_x": 74, "top_left_y": 66, "bottom_right_x": 151, "bottom_right_y": 142}, "qr_content": "http://xxxxxx/xxxxx", "label": "qr_code"}], {"suggestion": "block", "category": "image_text", "confidence": 0.98779297, "label": "ad"}, {"suggestion": "block", "category": "image_text", "confidence": 1.0, "label": "qr_code"}], "ocr_text": "xxxxxxxxxx"}}
```

6.3.3 Moderation (Video)

6.3.3.1 Creating a Video Moderation Job

1. This section describes how to create a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withUrls` of the `RunCreateVideoModerationJobRequest` class to configure the URL of the video to be reviewed (only the URL mode is supported). After the configuration is complete, run the code.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkmoderation.v3.region.moderation_region import ModerationRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkmoderation.v3 import *
import os

if __name__ == "__main__":
    # Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
    # store them in the configuration file or environment variables.
    # In this example, the AK and SK are stored in environment variables for identity authentication.
    # Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
    # HUAWEICLOUD_SDK_SK.
    ak = os.getenv("HUAWEICLOUD_SDK_AK")
    sk = os.getenv("HUAWEICLOUD_SDK_SK")
    credentials = BasicCredentials(ak, sk)

    client = ModerationClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(ModerationRegion.value_of("xxx")) \
        .build()
    # Replace xxx with the service region, for example, ap-southeast-3.
    try:
        request = RunCreateVideoModerationJobRequest()
        listAudioCategoriesbody = [
            "porn"
        ]
        listImageCategoriesbody = [
            "porn"
        ]
        databody = VideoCreateRequestData(
            url="http://xxx.xx.xxx",
```

```
        frame_interval=5.5
    )
    request.body = VideoCreateRequest(
        callback="http://xxx.xx.xxxx",
        audio_categories=listAudioCategoriesbody,
        image_categories=listImageCategoriesbody,
        event_type="default",
        data=databody
    )
    response = client.run_create_video_moderation_job(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

2. The console returns the submission result of the creation request and the **video moderation job creation result**.

```
{"request_id": "dbbcb75d1a174bfa899a38be38fdd107", "job_id": "xxx"}
```

6.3.3.2 Querying a Video Moderation Job

1. This section describes how to query a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withJobId` of the `RunQueryVideoModerationJobRequest` class to configure the ID of the review task. After the configuration is complete, run the code.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkmoderation.v3.region.moderation_region import ModerationRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkmoderation.v3 import *
import os

if __name__ == "__main__":
    # Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
    # store them in the configuration file or environment variables.
    # In this example, the AK and SK are stored in environment variables for identity authentication.
    # Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
    # HUAWEICLOUD_SDK_SK.
    ak = os.getenv("HUAWEICLOUD_SDK_AK")
    sk = os.getenv("HUAWEICLOUD_SDK_SK")
    credentials = BasicCredentials(ak, sk)

    client = ModerationClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(ModerationRegion.value_of("xxx")) \
        .build()
    # Replace xxx with the service region, for example, ap-southeast-3.
    try:
        request = RunQueryVideoModerationJobRequest()
        request.job_id = "xxx" //Enter your job ID.
        response = client.run_query_video_moderation_job(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

2. The console returns the submission result of the query request and the **video moderation job query result**.

```
{"request_id": "xxxx", "job_id": "xxx", "status": "succeeded", "request_params": {"data":
{"url": "xxxx", "frame_interval": 5, "event_type": "default", "image_categories":
```



```
[{"porn","terrorism","image_text"],"audio_categories":
[{"porn","ad","moan","abuse"],"callback":"xxx"},"create_time":"2022-07-30T08:57:11.011Z","update_time":"2022-07-30T08:57:14.014Z","result":{"suggestion":"block","image_detail":
[{"suggestion":"block","category":"porn","ocr_text":"123","time":0,"detail":
[{"confidence":0.676015138626099,"category":"porn","suggestion":"block","label":"pornography"},
{"confidence":0.666015138626099,"category":"porn","suggestion":"review","label":"sexy_female"},
{"confidence":0.666015138626099,"category":"xxx","suggestion":"block","label":"leader"},
{"confidence":0.691423773765564,"category":"xxx","suggestion":"block","face_location":
{"top_left_x":12,"top_left_y":13,"bottom_right_x":200,"bottom_right_y":240,"label":"leader"},
{"confidence":0.691423773765564,"category":"porn","suggestion":"block","face_location":
{"top_left_x":12,"top_left_y":13,"bottom_right_x":100,"bottom_right_y":2000,"label":"leader"},
{"confidence":0.891423773765564,"category":"image_text","suggestion":"block","label":"qr_code"},
{"confidence":0.891423773765564,"category":"image_text","suggestion":"block","label":"qr_code","qr_content":"xxxxxxxx","qr_location":
{"top_left_x":12,"top_left_y":13,"bottom_right_x":100,"bottom_right_y":2000}},
{"confidence":0.891423773765564,"category":"image_text","suggestion":"block","label":"porn","segments":[{"segment":"xxx"}, {"segment":"xx"}]}]}], "audio_detail":
[{"suggestion":"block","label":"porn","audio_text":"xxxxx","end_time":10,"start_time":0,"detail":
[{"confidence":0.999117187582349,"label":"porn","suggestion":"block","segments":
[{"segment":"xxx"}]}], {"confidence":0.885117187582349,"label":"porn","suggestion":"block"}]}]}]
```

7 Using the .NET SDK

7.1 Preparing a .NET Development Environment

To use the .NET SDK of Content Moderation, you need to configure the .NET development environment.

1. Download the latest Visual Studio from the [Visual Studio official website](#).
2. Click the .exe file to start installation.
3. During the installation, select **ASP.NET and web development** on the **Workloads** tab page.

7.2 Importing a .NET SDK into a .NET Environment

You can install the .Net SDK using commands or Visual Studio.

```
// Use .NET CLI to install the .Net SDK.  
dotnet add package HuaweiCloud.SDK.Core  
dotnet add package HuaweiCloud.SDK.Moderation  
  
// Use Package Manager to install the .Net SDK.  
Install-Package HuaweiCloud.SDK.Core  
dotnet add package HuaweiCloud.SDK.Moderation
```

If you use Visual Studio, choose **Tools > NuGet Package Manager > Manage NuGet Packages for Solution...**, and search for and install **HuaweiCloud.SDK.Core** and **HuaweiCloud.SDK.Moderation**.

7.3 SDK Calling Example

7.3.1 Moderation (Text)

7.3.1.1 Text Moderation (V3)

1. This section describes how to use the Text Moderation SDK by AK/SK authentication.

Change the value of **Text** in **TextDetectionDataReq** in the sample code to the text to be detected. Then run the code.

```
using System;
using System.Collections.Generic;
using HuaweiCloud.SDK.Core;
using HuaweiCloud.SDK.Core.Auth;
using HuaweiCloud.SDK.Moderation;
using HuaweiCloud.SDK.Moderation.V3;
using HuaweiCloud.SDK.Moderation.V3.Model;

namespace RunTextModerationSolution
{
    class Program
    {
        static void Main(string[] args)
        {
            //Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
            //store them in the configuration file or environment variables.
            //In this example, the AK and SK are stored in environment variables for identity authentication.
            //Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
            //HUAWEICLOUD_SDK_SK.
            string ak= Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_AK",
            EnvironmentVariableTarget.Machine);
            string sk= Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_SK",
            EnvironmentVariableTarget.Machine);

            var config = HttpConfig.GetDefaultConfig();
            config.IgnoreSslVerification = true;
            var auth = new BasicCredentials(ak, sk);

            var client = ModerationClient.NewBuilder()
                .WithCredential(auth)
                .WithRegion(ModerationRegion.ValueOf("xxx")) //Replace xxx with the service region, for
                //example, ap-southeast-3.
                .WithHttpConfig(config)
                .Build();

            var req = new RunTextModerationRequest
            {
            };
            TextDetectionDataReq databody = new TextDetectionDataReq()
            {
                Text = "test"
            };
            req.Body = new TextDetectionReq()
            {
                Data = databody,
                EventType = "comment"
            };

            try
            {
                var resp = client.RunTextModeration(req);
                var respStatusCode = resp.HttpStatusCode;
                Console.WriteLine(respStatusCode);
            }
            catch (RequestTimeoutException requestTimeoutException)
            {
                Console.WriteLine(requestTimeoutException.ErrorMessage);
            }
            catch (ServiceResponseException clientRequestException)
            {
                Console.WriteLine(clientRequestException.HttpStatusCode);
                Console.WriteLine(clientRequestException.ErrorCode);
                Console.WriteLine(clientRequestException.ErrorMsg);
            }
            catch (ConnectionException connectionException)
            {
            }
        }
    }
}
```

```
        Console.WriteLine(connectionException.ErrorMessage);
    }
}
}
```

2. If **200** is displayed on the console, the code is successfully executed. The **text moderation result** is displayed on the console.

```
200
{
  "request_id":"d81702cfd3599e103030c3d52d6f955f",
  "result":{
    "suggestion":"pass",
    "label":"normal",
    "details":[]
  }
}
```

7.3.2 Moderation (Image)

7.3.2.1 Image Moderation (V3)

1. This section describes how to use the Image Moderation SDK by AK/SK authentication.

Change the value of **Image** or **Url** in **ImageDetectionReq** in the sample code to configure the image to be reviewed. Then run the code.

```
using System;
using System.Collections.Generic;
using HuaweiCloud.SDK.Core;
using HuaweiCloud.SDK.Core.Auth;
using HuaweiCloud.SDK.Moderation;
using HuaweiCloud.SDK.Moderation.V3;
using HuaweiCloud.SDK.Moderation.V3.Model;

namespace CheckImageModerationSolution
{
    class Program
    {
        static void Main(string[] args)
        {
            //Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
            store them in the configuration file or environment variables.
            //In this example, the AK and SK are stored in environment variables for identity authentication.
            Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
            HUAWEICLOUD_SDK_SK.
            string ak= Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_AK",
            EnvironmentVariableTarget.Machine);
            string sk= Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_SK",
            EnvironmentVariableTarget.Machine);

            const string projectId = "project_id";
            var config = HttpConfig.GetDefaultConfig();
            config.IgnoreSslVerification = true;
            var auth = new BasicCredentials(ak, sk, projectId);

            var client = ModerationClient.NewBuilder()
                .WithCredential(auth)
                .WithRegion(ModerationRegion.ValueOf("xxx")) //Replace xxx with the region where
the service is located.
                .WithHttpConfig(config)
                .Build();

            var req = new CheckImageModerationRequest
            {
```

```
};
List<string> listCategoriesbody = new List<string>();
listCategoriesbody.Add("porn");
req.Body = new ImageDetectionReq()
{
    Url = "http://www.xxxx.xxxx",
    Categories = listCategoriesbody,
    EventType = "head_image"
};

try
{
    var resp = client.CheckImageModeration(req);
    var respStatusCode = resp.HttpStatusCode;
    Console.WriteLine(respStatusCode);
    Console.WriteLine(resp);
}
catch (RequestTimeoutException requestTimeoutException)
{
    Console.WriteLine(requestTimeoutException.ErrorMessage);
}
catch (ServiceResponseException clientRequestException)
{
    Console.WriteLine(clientRequestException.HttpStatusCode);
    Console.WriteLine(clientRequestException.ErrorCode);
    Console.WriteLine(clientRequestException.ErrorMsg);
}
catch (ConnectionException connectionException)
{
    Console.WriteLine(connectionException.ErrorMessage);
}
}
}
```

2. If **200** is displayed on the console, the code is successfully executed. The **image moderation result** is displayed on the console.

```
200
{"request_id": "69b424920668cb15e6d25eef879a023b", "result": {"suggestion": "block", "category":
"image_text", "details": [{"suggestion": "block", "category": "image_text", "confidence": 1.0,
"qr_location": {"top_left_x": 74, "top_left_y": 66, "bottom_right_x": 151, "bottom_right_y": 142},
"qr_content": "http://xxxxxx/xxxxx", "label": "qr_code"}, {"suggestion": "block", "category":
"image_text", "confidence": 0.98779297, "label": "ad"}, {"suggestion": "block", "category":
"image_text", "confidence": 1.0, "label": "qr_code"}], "ocr_text": "xxxxxxxxx"}}
```

7.3.3 Moderation (Video)

7.3.3.1 Creating a Video Moderation Job

1. This section describes how to create a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withUrls` of the `RunCreateVideoModerationJobRequest` class to configure the URL of the video to be reviewed (only the URL mode is supported). After the configuration is complete, run the code.

```
using System;
using System.Collections.Generic;
using HuaweiCloud.SDK.Core;
using HuaweiCloud.SDK.Core.Auth;
using HuaweiCloud.SDK.Moderation;
using HuaweiCloud.SDK.Moderation.V3;
using HuaweiCloud.SDK.Moderation.V3.Model;

namespace RunCreateVideoModerationJobSolution
```

```
{
    class Program
    {
        static void Main(string[] args)
        {
            //Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
            store them in the configuration file or environment variables.
            //In this example, the AK and SK are stored in environment variables for identity authentication.
            Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
            HUAWEICLOUD_SDK_SK.
            string ak= Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_AK",
            EnvironmentVariableTarget.Machine);
            string sk= Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_SK",
            EnvironmentVariableTarget.Machine);

            var config = HttpConfig.GetDefaultConfig();
            config.IgnoreSslVerification = true;
            var auth = new BasicCredentials(ak, sk);

            var client = ModerationClient.NewBuilder()
                .WithCredential(auth)
                .WithRegion(ModerationRegion.ValueOf("xxx")) //Replace xxx with the region where
the service is located.
                .WithHttpConfig(config)
                .Build();

            var req = new RunCreateVideoModerationJobRequest
            {
            };
            List<VideoCreateRequest.AudioCategoriesEnum> listAudioCategoriesbody = new
            List<VideoCreateRequest.AudioCategoriesEnum>();
            listAudioCategoriesbody.Add(VideoCreateRequest.AudioCategoriesEnum.FromValue("porn"));
            List<VideoCreateRequest.ImageCategoriesEnum> listImageCategoriesbody = new
            List<VideoCreateRequest.ImageCategoriesEnum>();
            listImageCategoriesbody.Add(VideoCreateRequest.ImageCategoriesEnum.FromValue("porn"));
            VideoCreateRequestData databody = new VideoCreateRequestData()
            {
                Url = "http://xxx.xx.xxxx",
                FrameInterval = 5.5
            };
            req.Body = new VideoCreateRequest()
            {
                Callback = "http://xxx.xx.xxxx",
                AudioCategories = listAudioCategoriesbody,
                ImageCategories = listImageCategoriesbody,
                EventType = VideoCreateRequest.EventTypeEnum.FromValue("default"),
                Data = databody
            };

            try
            {
                var resp = client.RunCreateVideoModerationJob(req);
                var respStatusCode = resp.HttpStatusCode;
                Console.WriteLine(respStatusCode);
            }
            catch (RequestTimeoutException requestTimeoutException)
            {
                Console.WriteLine(requestTimeoutException.ErrorMessage);
            }
            catch (ServiceResponseException clientRequestException)
            {
                Console.WriteLine(clientRequestException.HttpStatusCode);
                Console.WriteLine(clientRequestException.ErrorCode);
                Console.WriteLine(clientRequestException.ErrorMsg);
            }
            catch (ConnectionException connectionException)
            {
                Console.WriteLine(connectionException.ErrorMessage);
            }
        }
    }
}
```

```
    }  
  }  
}
```

2. The console returns the submission result of the creation request and the **video moderation job creation result**.

```
200  
{  
  "request_id":"dbbc75d1a174bfa899a38be38fdd107",  
  "job_id":"xxx"  
}
```

7.3.3.2 Querying a Video Moderation Job

1. This section describes how to query a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withJobId` of the `RunQueryVideoModerationJobRequest` class to configure the ID of the review task. After the configuration is complete, run the code.

```
using System;  
using System.Collections.Generic;  
using HuaweiCloud.SDK.Core;  
using HuaweiCloud.SDK.Core.Auth;  
using HuaweiCloud.SDK.Moderation;  
using HuaweiCloud.SDK.Moderation.V3;  
using HuaweiCloud.SDK.Moderation.V3.Model;  
  
namespace RunQueryVideoModerationJobSolution  
{  
    class Program  
    {  
        static void Main(string[] args)  
        {  
            //Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and  
            store them in the configuration file or environment variables.  
            //In this example, the AK and SK are stored in environment variables for identity authentication.  
            Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and  
            HUAWEICLOUD_SDK_SK.  
            string ak= Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_AK",  
            EnvironmentVariableTarget.Machine);  
            string sk= Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_SK",  
            EnvironmentVariableTarget.Machine);  
  
            var config = HttpConfig.GetDefaultConfig();  
            config.IgnoreSslVerification = true;  
            var auth = new BasicCredentials(ak, sk);  
  
            var client = ModerationClient.NewBuilder()  
                .WithCredential(auth)  
                .WithRegion(ModerationRegion.ValueOf("xxx")) //Replace xxx with the region where  
the service is located.  
                .WithHttpConfig(config)  
                .Build();  
  
            var req = new RunQueryVideoModerationJobRequest  
            {  
                JobId = "xxxx" //Enter your job ID.  
            };  
  
            try  
            {  
                var resp = client.RunQueryVideoModerationJob(req);  
                var respStatusCode = resp.HttpStatusCode;  
                Console.WriteLine(respStatusCode);  
            }  
        }  
    }  
}
```

```
Console.WriteLine(JsonConvert.DeserializeObject(resp.HttpBody));
    }
    catch (RequestTimeoutException requestTimeoutException)
    {
        Console.WriteLine(requestTimeoutException.ErrorMessage);
    }
    catch (ServiceResponseException clientRequestException)
    {
        Console.WriteLine(clientRequestException.HttpStatusCode);
        Console.WriteLine(clientRequestException.ErrorCode);
        Console.WriteLine(clientRequestException.ErrorMsg);
    }
    catch (ConnectionException connectionException)
    {
        Console.WriteLine(connectionException.ErrorMessage);
    }
}
}
```

2. The console returns the submission result of the query request and the **video moderation job query result**.

```
200
{
  "request_id": "xxxx",
  "job_id": "xxx",
  "status": "succeeded",
  "request_params": {
    "data": {
      "url": "xxxx",
      "frame_interval": 5
    },
    "event_type": "default",
    "image_categories": [
      "porn",
      "terrorism",
      "image_text"
    ],
    "audio_categories": [
      "porn",
      "ad",
      "moan",
      "abuse"
    ],
    "callback": "xxx"
  },
  "create_time": "2022-07-30T08:57:11.011Z",
  "update_time": "2022-07-30T08:57:14.014Z",
  "result": {
    "suggestion": "block",
    "image_detail": [
      {
        "suggestion": "block",
        "category": "porn",
        "ocr_text": "123",
        "time": 0,
        "detail": [
          {
            "confidence": 0.676015138626099,
            "category": "porn",
            "suggestion": "block",
            "label": "pornography"
          },
          {
            "confidence": 0.666015138626099,
            "category": "porn",
            "suggestion": "review",
            "label": "sexy_female"
          }
        ]
      }
    ]
  }
}
```



```
        "confidence":0.666015138626099,
        "category":"xxx",
        "suggestion":"block",
        "label":"leader"
    },
    {
        "confidence":0.691423773765564,
        "category":"xxx",
        "suggestion":"block",
        "face_location":{
            "top_left_x":12,
            "top_left_y":13,
            "bottom_right_x":200,
            "bottom_right_y":240
        },
        "label":"leader"
    },
    {
        "confidence":0.691423773765564,
        "category":"porn",
        "suggestion":"block",
        "face_location":{
            "top_left_x":12,
            "top_left_y":13,
            "bottom_right_x":100,
            "bottom_right_y":2000
        },
        "label":"leader"
    },
    {
        "confidence":0.891423773765564,
        "category":"image_text",
        "suggestion":"block",
        "label":"qr_code"
    },
    {
        "confidence":0.891423773765564,
        "category":"image_text",
        "suggestion":"block",
        "label":"qr_code",
        "qr_content":"xxxxxxxx",
        "qr_location":{
            "top_left_x":12,
            "top_left_y":13,
            "bottom_right_x":100,
            "bottom_right_y":2000
        }
    },
    {
        "confidence":0.891423773765564,
        "category":"image_text",
        "suggestion":"block",
        "label":"porn",
        "segments":[
            {
                "segment":"xxx"
            },
            {
                "segment":"xx"
            }
        ]
    }
]
},
"audio_detail":[
    {
        "suggestion":"block",
        "label":"porn",
```

```
"audio_text":"xxxxx",
"end_time":10,
"start_time":0,
"detail":[
  {
    "confidence":0.999117187582349,
    "label":"porn",
    "suggestion":"block",
    "segments":[
      {
        "segment":"xxx"
      }
    ]
  },
  {
    "confidence":0.885117187582349,
    "label":"porn",
    "suggestion":"block"
  }
]
}
```

8 Using the Go SDK

8.1 Preparing a Go Development Environment

To use the Go SDK of Image Recognition, you need to configure the Go development environment. If the Go development environment has been installed, skip this section.

1. Download Go 1.14 or a later version from the [Go official website](#).
2. Install the downloaded Go in a specified path, for example, **D:\develop\go**.
3. Right-click **Computer**, choose **Properties > Advanced System Settings > Environment Variables**, and perform the following operations:
 - a. Create system variable **GOROOT** whose value is the Go installation path. Add environment variable **GOPATH**, which indicates the directory where the Go project is located.
 - b. Append **;%GOROOT%\bin** (path of the Go compiler) to the **PATH** variable.
 - c. Append **;%GOROOT%\lib** (path of the Go compiler) to the **CLASSPATH** variable.
4. Download Visual Studio Code from its [official website](#) and install it.
5. Install the Go and Go Critic plug-ins.

8.2 Obtaining and Installing the Go SDK

1. Run the following command:

```
go get -u github.com/huaweicloud/huaweicloud-sdk-go-v3
```

8.3 SDK Calling Example

8.3.1 Moderation (Text)

8.3.1.1 Text Moderation (V3)

1. This section describes how to use the Text Moderation SDK by AK/SK authentication.

Change the value of **Text** in **TextDetectionDataReq** in the sample code to the text to be detected. Then run the code.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    moderation "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3/region"
)

func main() {
    // Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
    // store them in the configuration file or environment variables.
    // In this example, the AK and SK are stored in environment variables for identity authentication.
    // Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
    // HUAWEICLOUD_SDK_SK.
    ak := os.Getenv("HUAWEICLOUD_SDK_AK")
    sk := os.Getenv("HUAWEICLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := moderation.NewModerationClient(
        moderation.ModerationClientBuilder().
            WithRegion(region.ValueOf("xxx")). //Replace xxx with the service region, for example, ap-
            southeast-3.
            WithCredential(auth).
            Build())

    request := &model.RunTextModerationRequest{}
    databody := &model.TextDetectionDataReq{
        Text: "text",
    }
    request.Body = &model.TextDetectionReq{
        Data: databody,
        EventType: "comment",
    }
    response, err := client.RunTextModeration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

2. The code is successfully executed if the **text moderation result** is displayed on the console.

```
RunTextModerationResponse {"request_id": "d81702cfd3599e103030c3d52d6f955f", "result":
{"suggestion": "pass", "label": "normal", "details": []}}
```

8.3.2 Moderation (Image)

8.3.2.1 Image Moderation (V3)

1. This section describes how to use the Image Moderation SDK by AK/SK authentication.

Use **Url** or **Image** to configure the image information (**Url** is used in the sample code) and run the code.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    moderation "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3/region"
)

func main() {
    // Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
    // store them in the configuration file or environment variables.
    // In this example, the AK and SK are stored in environment variables for identity authentication.
    // Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
    // HUAWEICLOUD_SDK_SK.
    ak := os.Getenv("HUAWEICLOUD_SDK_AK")
    sk := os.Getenv("HUAWEICLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := moderation.NewModerationClient(
        moderation.ModerationClientBuilder().
            WithRegion(region.ValueOf("xxx")). //Replace xxx with the service region, for example, ap-
            southeast-3.
            WithCredential(auth).
            Build())

    request := &model.CheckImageModerationRequest{}
    var listCategoriesbody = []string{
        "porn",
    }
    urlImageDetectionReq := "http://www.xxx.xxx"
    request.Body = &model.ImageDetectionReq{
        Url: &urlImageDetectionReq,
        Categories: listCategoriesbody,
        EventType: "head_image",
    }
    response, err := client.CheckImageModeration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

2. The code is successfully executed if the **image moderation result** is displayed on the console.

```
CheckImageModerationResponse
{"request_id": "69b424920668cb15e6d25eef879a023b", "result": {"suggestion": "block", "category":
"image_text", "details": [{"suggestion": "block", "category": "image_text", "confidence": 1.0,
"qr_location": {"top_left_x": 74, "top_left_y": 66, "bottom_right_x": 151, "bottom_right_y": 142},
"qr_content": "http://xxxxx/xxxxx", "label": "qr_code"}, {"suggestion": "block", "category":
"image_text", "confidence": 0.98779297, "label": "ad"}, {"suggestion": "block", "category":
"image_text", "confidence": 1.0, "label": "qr_code"}], "ocr_text": "xxxxxxxxx"}}
```

8.3.3 Moderation (Video)

8.3.3.1 Creating a Video Moderation Job

1. This section describes how to create a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withUrls` of the `RunCreateVideoModerationJobRequest` class to configure the URL of the video to be reviewed (only the URL mode is supported). After the configuration is complete, run the code.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    moderation "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3/region"
)

func main() {
    // Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
    // store them in the configuration file or environment variables.
    // In this example, the AK and SK are stored in environment variables for identity authentication.
    // Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
    // HUAWEICLOUD_SDK_SK.
    ak := os.Getenv("HUAWEICLOUD_SDK_AK")
    sk := os.Getenv("HUAWEICLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := moderation.NewModerationClient(
        moderation.ModerationClientBuilder().
            WithRegion(region.ValueOf("xxx")). //Replace xxx with the service region, for example, ap-
            southeast-3.
            WithCredential(auth).
            Build())

    request := &model.RunCreateVideoModerationJobRequest{}
    var listAudioCategoriesbody = []model.VideoCreateRequestAudioCategories{
        model.GetVideoCreateRequestAudioCategoriesEnum().PORN,
    }
    var listImageCategoriesbody = []model.VideoCreateRequestImageCategories{
        model.GetVideoCreateRequestImageCategoriesEnum().PORN,
    }
    frameIntervalData := float32(5.5)
    databody := &model.VideoCreateRequestData{
        Url: "http://xxx.xx.xxxx",
        FrameInterval: &frameIntervalData,
    }
    callbackVideoCreateRequest := "http://xxx.xx.xxxx"
    request.Body = &model.VideoCreateRequest{
        Callback: &callbackVideoCreateRequest,
        AudioCategories: &listAudioCategoriesbody,
        ImageCategories: listImageCategoriesbody,
        EventType: model.GetVideoCreateRequestEventTypeEnum().DEFAULT,
        Data: databody,
    }
    response, err := client.RunCreateVideoModerationJob(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

2. The console returns the submission result of the creation request and the **video moderation job creation result**.

```
RunCreateVideoModerationJobResponse{"request_id":"dbbcb75d1a174bfa899a38be38fdd107",  
"job_id": "xxx"}
```

8.3.3.2 Querying a Video Moderation Job

1. This section describes how to query a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withJobId` of the `RunQueryVideoModerationJobRequest` class to configure the ID of the review task. After the configuration is complete, run the code.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    moderation "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v3/region"
)

func main() {
    // Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
    // store them in the configuration file or environment variables.
    // In this example, the AK and SK are stored in environment variables for identity authentication.
    // Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and
    // HUAWEICLOUD_SDK_SK.
    ak := os.Getenv("HUAWEICLOUD_SDK_AK")
    sk := os.Getenv("HUAWEICLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := moderation.NewModerationClient(
        moderation.ModerationClientBuilder().
            WithRegion(region.ValueOf("xxx")). //Replace xxx with the service region, for example, ap-
            southeast-3.
            WithCredential(auth).
            Build())

    request := &model.RunQueryVideoModerationJobRequest{}
    request.JobId = "xxxx" //Enter your job ID.
    response, err := client.RunQueryVideoModerationJob(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

2. The console returns the submission result of the query request and the **video moderation job query result**.

```
RunQueryVideoModerationJobResponse
{"request_id":"xxxx","job_id":"xxx","status":"succeeded","request_params":{"data":
{"url":"xxxx","frame_interval":5,"event_type":"default","image_categories":
["porn","terrorism","image_text"],"audio_categories":
["porn","ad","moan","abuse"],"callback":"xxx"},"create_time":"2022-07-30T08:57:11.011Z","update_time":
"2022-07-30T08:57:14.014Z","result":{"suggestion":"block","image_detail":
{"suggestion":"block","category":"porn","ocr_text":"123","time":0,"detail":
{"confidence":0.676015138626099,"category":"porn","suggestion":"block","label":"pornography"},
{"confidence":0.666015138626099,"category":"porn","suggestion":"review","label":"sexy_female"},
{"confidence":0.666015138626099,"category":"xxx","suggestion":"block","label":"leader"},
{"confidence":0.691423773765564,"category":"xxx","suggestion":"block","face_location":
```

```
{
  "top_left_x": 12, "top_left_y": 13, "bottom_right_x": 200, "bottom_right_y": 240, "label": "leader",
  "confidence": 0.691423773765564, "category": "porn", "suggestion": "block", "face_location":
  {
    "top_left_x": 12, "top_left_y": 13, "bottom_right_x": 100, "bottom_right_y": 2000, "label": "leader",
    "confidence": 0.891423773765564, "category": "image_text", "suggestion": "block", "label": "qr_code",
    "confidence": 0.891423773765564, "category": "image_text", "suggestion": "block", "label": "qr_code", "qr_c
    ontent": "xxxxxxxx", "qr_location":
    {
      "top_left_x": 12, "top_left_y": 13, "bottom_right_x": 100, "bottom_right_y": 2000,
      "confidence": 0.891423773765564, "category": "image_text", "suggestion": "block", "label": "porn", "segme
      nts": [
        {
          "segment": "xxx",
          "segment": "xx"
        }
      ],
      "audio_detail":
        [
          {
            "suggestion": "block", "label": "porn", "audio_text": "xxxx", "end_time": 10, "start_time": 0, "detail":
            [
              {
                "confidence": 0.999117187582349, "label": "porn", "suggestion": "block", "segments":
                [
                  {
                    "segment": "xxx"
                  }
                ],
                "confidence": 0.885117187582349, "label": "porn", "suggestion": "block"
              }
            ]
          }
        ]
      }
    }
  }
}
```


9 Using the PHP SDK

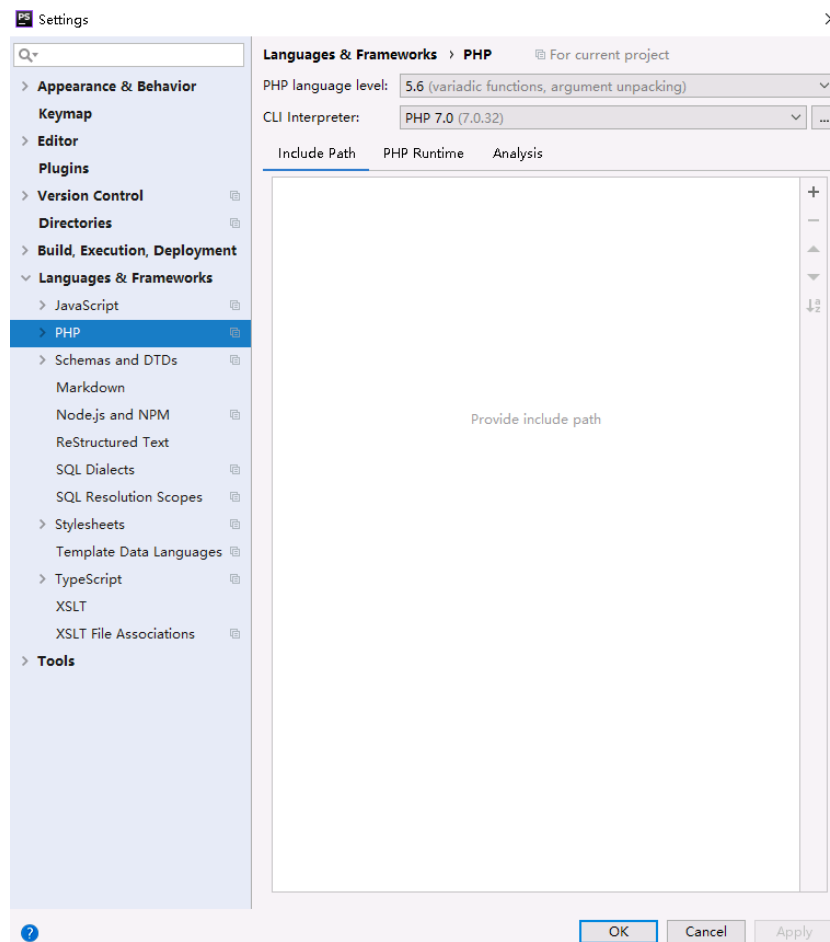
9.1 Preparing a PHP Development Environment

To use the PHP SDK of Content Moderation, you need to configure the PHP development environment.

1. Download PHP of a proper version from [PHP official website](#) and install it. The php.7.x version is recommended for the Content Moderation SDK. The following uses the PHP 7.0.32 version as an example.

NOTE

- The PHP installation directory cannot contain Chinese characters or special characters.
 - In the Windows operating system, if you run the **php -v** command, the command output indicates that the specified module cannot be found, check whether the **extension_dir** and **include_path** parameters in the **php.ini** file are correctly set.
1. Download the latest version of PhpStorm from [PhpStorm's official website](#) and install it.
 2. Start the PhpStorm development tool and choose **File > Settings > Languages & Frameworks > PHP** to configure the PHP environment.
 3. Select the PHP path on the top of the page, as shown in [Figure 9-1](#). Then click **Apply**.

Figure 9-1 Configuring the PHP environment using PhpStorm

9.2 Importing a PHP SDK into a PHP Environment

You are advised to use [Composer](#) to install the PHP SDK for Content Moderation. Composer is a dependency manager for PHP. It allows you to declare and install dependencies in a project.

```
// Install Composer.  
curl -sS https://getcomposer.org/installer | php  
// Install the PHP SDK.  
composer require huaweicloud/huaweicloud-sdk-php
```

After the installation is complete, you need to import the autoload file of Composer.

```
require 'path/to/vendor/autoload.php';
```

9.3 SDK Calling Example

9.3.1 Moderation (Text)

9.3.1.1 Text Moderation (V3)

1. This section describes how to use the Text Moderation SDK by AK/SK authentication.

Change the value of **Text** in **TextDetectionDataReq** in the sample code to the text to be detected. Then run the code.

For details about how to obtain the project ID, see [Obtaining a Project ID](#).

```
<?php
namespace HuaweiCloud\SDK\Moderation\V3\Model;
require_once "vendor/autoload.php";
use HuaweiCloud\SDK\Core\Auth\BasicCredentials;
use HuaweiCloud\SDK\Core\Http\HttpConfig;
use HuaweiCloud\SDK\Core\Exceptions\ConnectionException;
use HuaweiCloud\SDK\Core\Exceptions\RequestTimeoutException;
use HuaweiCloud\SDK\Core\Exceptions\ServiceResponseException;
use HuaweiCloud\SDK\Moderation\V3\ModerationClient;
// Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
// store them in the configuration file or environment variables.
// In this example, the AK and SK are stored in environment variables for identity authentication.
// Before running this example, configure environment variables HUAWEICLOUD_SDK_AK,
// HUAWEICLOUD_SDK_SK, and HUAWEICLOUD_SDK_PROJECT_ID.
$ak = getenv('HUAWEICLOUD_SDK_AK');
$sk = getenv('HUAWEICLOUD_SDK_SK');
$projectId = getenv('HUAWEICLOUD_SDK_PROJECT_ID');

$endpoint = "https://moderation.ap-southeast-3.myhuaweicloud.com"; // Replace ap-southeast-3 with
// the region where the service is located.

$credentials = new BasicCredentials($ak,$sk,$projectId);
$config = HttpConfig::getDefaultConfig();
$config->setIgnoreSslVerification(true);

$client = ModerationClient::newBuilder(new ModerationClient)
    ->withHttpConfig($config)
    ->withEndpoint($endpoint)
    ->withCredentials($credentials)
    ->build();
$request = new RunTextModerationRequest();

$body = new TextDetectionReq();
$databody = new TextDetectionDataReq();
$databody->setText("text"); // Enter the text to be detected.
$body->setData($databody);
$body->setEventType("comment");
$request->setBody($body);
try {
    $response = $client->RunTextModeration($request);
    echo "\n";
    echo $response;
} catch (ConnectionException $e) {
    $msg = $e->getMessage();
    echo "\n". $msg . "\n";
} catch (RequestTimeoutException $e) {
    $msg = $e->getMessage();
    echo "\n". $msg . "\n";
} catch (ServiceResponseException $e) {
    echo "\n";
    echo $e->getHttpStatusCode(). "\n";
    echo $e->getErrorCode() . "\n";
    echo $e->getErrMsg() . "\n";
}
```

2. The code is successfully executed if the **text moderation result** is displayed on the console.

```
{
  "request_id":"d81702cfd3599e103030c3d52d6f955f",
  "result":{
```

```
        "suggestion": "pass",  
        "label": "normal",  
        "details": [  
        ]  
    }  
}
```

9.3.2 Moderation (Image)

9.3.2.1 Image Moderation (V3)

1. This section describes how to use the Image Moderation SDK by AK/SK authentication.

Use **Url** or **Image** to configure the image information (**Url** is used in the sample code) and run the code.

For details about how to obtain the project ID, see [Obtaining a Project ID](#).

```
<?php  
namespace HuaweiCloud\SDK\Moderation\V3\Model;  
require_once "vendor/autoload.php";  
use HuaweiCloud\SDK\Core\Auth\BasicCredentials;  
use HuaweiCloud\SDK\Core\Http\HttpConfig;  
use HuaweiCloud\SDK\Core\Exceptions\ConnectionException;  
use HuaweiCloud\SDK\Core\Exceptions\RequestTimeoutException;  
use HuaweiCloud\SDK\Core\Exceptions\ServiceResponseException;  
use HuaweiCloud\SDK\Moderation\V3\ModerationClient;  
  
// Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and  
// store them in the configuration file or environment variables.  
// In this example, the AK and SK are stored in environment variables for identity authentication.  
// Before running this example, configure environment variables HUAWEICLOUD_SDK_AK,  
// HUAWEICLOUD_SDK_SK, and HUAWEICLOUD_SDK_PROJECT_ID.  
$ak = getenv('HUAWEICLOUD_SDK_AK');  
$sk = getenv('HUAWEICLOUD_SDK_SK');  
$projectId = getenv('HUAWEICLOUD_SDK_PROJECT_ID');  
  
$endpoint = "https://moderation.ap-southeast-3.myhuaweicloud.com"; // Replace ap-southeast-3 with  
// the region where the service is located.  
$credentials = new BasicCredentials($ak,$sk,$projectId);  
$config = HttpConfig::getDefaultConfig();  
$config->setIgnoreSslVerification(true);  
  
$client = ModerationClient::newBuilder(new ModerationClient)  
->withHttpConfig($config)  
->withEndpoint($endpoint)  
->withCredentials($credentials)  
->build();  
$request = new CheckImageModerationRequest();  
  
$body = new ImageDetectionReq();  
$listbodyCategories = array();  
array_push($listbodyCategories,"porn");  
$body->setUrl("http://www.xxx.xxx");  
$body->setCategories($listbodyCategories);  
$body->setEventType("head_image");  
$request->setBody($body);  
try {  
    $response = $client->CheckImageModeration($request);  
    echo "\n";  
    echo $response;  
} catch (ConnectionException $e) {  
    $msg = $e->getMessage();  
    echo "\n". $msg . "\n";  
} catch (RequestTimeoutException $e) {  
    $msg = $e->getMessage();
```

```
echo "\n". $msg . "\n";
} catch (ServiceResponseException $e) {
    echo "\n";
    echo $e->getHttpStatusCode(). "\n";
    echo $e->getErrorCode() . "\n";
    echo $e->getErrMsg() . "\n";
}
```

2. The code is successfully executed if the **image moderation result** is displayed on the console.

```
{"request_id": "69b424920668cb15e6d25eef879a023b", "result": {"suggestion": "block", "category": "image_text", "details": [{"suggestion": "block", "category": "image_text", "confidence": 1.0, "qr_location": {"top_left_x": 74, "top_left_y": 66, "bottom_right_x": 151, "bottom_right_y": 142}, "qr_content": "http://xxxxxx/xxxxx", "label": "qr_code"}, {"suggestion": "block", "category": "image_text", "confidence": 0.98779297, "label": "ad"}, {"suggestion": "block", "category": "image_text", "confidence": 1.0, "label": "qr_code"}], "ocr_text": "xxxxxxxxx"}}
```

9.3.3 Moderation (Video)

9.3.3.1 Creating a Video Moderation Job

1. This section describes how to create a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withUrls` of the `RunCreateVideoModerationJobRequest` class to configure the URL of the video to be reviewed (only the URL mode is supported). After the configuration is complete, run the code.

For details about how to obtain the project ID, see [Obtaining a Project ID](#).

```
<?php
namespace HuaweiCloud\SDK\Moderation\V3\Model;
require_once "vendor/autoload.php";
use HuaweiCloud\SDK\Core\Auth\BasicCredentials;
use HuaweiCloud\SDK\Core\Http\HttpConfig;
use HuaweiCloud\SDK\Core\Exceptions\ConnectionException;
use HuaweiCloud\SDK\Core\Exceptions\RequestTimeoutException;
use HuaweiCloud\SDK\Core\Exceptions\ServiceResponseException;
use HuaweiCloud\SDK\Moderation\V3\ModerationClient;
// Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
// store them in the configuration file or environment variables.
// In this example, the AK and SK are stored in environment variables for identity authentication.
// Before running this example, configure environment variables HUAWEICLOUD_SDK_AK,
// HUAWEICLOUD_SDK_SK, and HUAWEICLOUD_SDK_PROJECT_ID.
$ak = getenv('HUAWEICLOUD_SDK_AK');
$sk = getenv('HUAWEICLOUD_SDK_SK');
$projectId = getenv('HUAWEICLOUD_SDK_PROJECT_ID');

$endpoint = "https://moderation.ap-southeast-3.myhuaweicloud.com"; // Replace ap-southeast-3 with
// the region where the service is located.
$credentials = new BasicCredentials($ak,$sk,$projectId);
$config = HttpConfig::getDefaultConfig();
$config->setIgnoreSslVerification(true);

$client = ModerationClient::newBuilder(new ModerationClient)
    ->withHttpConfig($config)
    ->withEndpoint($endpoint)
    ->withCredentials($credentials)
    ->build();
$request = new RunCreateVideoModerationJobRequest();

$body = new VideoCreateRequest();
$listbodyAudioCategories = array();
array_push($listbodyAudioCategories,"porn");
$listbodyImageCategories = array();
array_push($listbodyImageCategories,"porn");
```

```
$databody = new VideoCreateRequestData();
$databody->setUrl("http://xxx.xx.xxxx")
    ->setFrameInterval(5);
$body->setAudioCategories($listbodyAudioCategories);
$body->setImageCategories($listbodyImageCategories);
$body->setEventType("default");
$body->setData($databody);
$request->setBody($body);
try {
    $response = $client->RunCreateVideoModerationJob($request);
    echo "\n";
    echo $response;
} catch (ConnectionException $e) {
    $msg = $e->getMessage();
    echo "\n". $msg ."\n";
} catch (RequestTimeoutException $e) {
    $msg = $e->getMessage();
    echo "\n". $msg ."\n";
} catch (ServiceResponseException $e) {
    echo "\n";
    echo $e->getHttpStatusCode(). "\n";
    echo $e->getErrorCode() . "\n";
    echo $e->getErrMsg() . "\n";
}
```

2. The console returns the submission result of the creation request and the **video moderation job creation result**.

```
{"request_id": "dbbcb75d1a174bfa899a38be38fdd107", "job_id": "xxx"}
```

9.3.3.2 Querying a Video Moderation Job

1. This section describes how to query a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withJobId` of the `RunQueryVideoModerationJobRequest` class to configure the ID of the review task. After the configuration is complete, run the code.

For details about how to obtain the project ID, see [Obtaining a Project ID](#).

```
<?php
namespace HuaweiCloud\SDK\Moderation\V3\Model;
require_once "vendor/autoload.php";
use HuaweiCloud\SDK\Core\Auth\BasicCredentials;
use HuaweiCloud\SDK\Core\Http\HttpConfig;
use HuaweiCloud\SDK\Core\Exceptions\ConnectionException;
use HuaweiCloud\SDK\Core\Exceptions\RequestTimeoutException;
use HuaweiCloud\SDK\Core\Exceptions\ServiceResponseException;
use HuaweiCloud\SDK\Moderation\V3\ModerationClient;
// Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
store them in the configuration file or environment variables.
// In this example, the AK and SK are stored in environment variables for identity authentication.
Before running this example, configure environment variables HUAWEICLOUD_SDK_AK,
HUAWEICLOUD_SDK_SK, and HUAWEICLOUD_SDK_PROJECT_ID.
$ak = getenv('HUAWEICLOUD_SDK_AK');
$sk = getenv('HUAWEICLOUD_SDK_SK');
$projectId = getenv('HUAWEICLOUD_SDK_PROJECT_ID');

$endpoint = "https://moderation.ap-southeast-3.myhuaweicloud.com";//Replace ap-southeast-3 with
the region where the service is located.
$credentials = new BasicCredentials($ak,$sk,$projectId);
$config = HttpConfig::getDefaultConfig();
$config->setIgnoreSslVerification(true);

$client = ModerationClient::newBuilder(new ModerationClient)
    ->withHttpConfig($config)
    ->withEndpoint($endpoint)
    ->withCredentials($credentials)
    ->build();
```

```
$request = new RunQueryVideoModerationJobRequest();
$request->setJobId("xxx"); //Enter your job ID.

try {
    $response = $client->RunQueryVideoModerationJob($request);
    echo "\n";
    echo $response;
} catch (ConnectionException $e) {
    $msg = $e->getMessage();
    echo "\n". $msg ."\n";
} catch (RequestTimeoutException $e) {
    $msg = $e->getMessage();
    echo "\n". $msg ."\n";
} catch (ServiceResponseException $e) {
    echo "\n";
    echo $e->getHttpStatusCode(). "\n";
    echo $e->getErrorCode() . "\n";
    echo $e->getErrMsg() . "\n";
}
```

2. The console returns the submission result of the query request and the **video moderation job query result**.

```
{
  "request_id": "xxx", "job_id": "xxx", "status": "succeeded", "request_params": {
    "data": {
      "url": "xxx", "frame_interval": 5, "event_type": "default", "image_categories": [
        "porn", "terrorism", "image_text", "audio_categories": [
          "porn", "ad", "moan", "abuse", "callback": "xxx", "create_time": "2022-07-30T08:57:11.011Z", "update_time": "2022-07-30T08:57:14.014Z", "result": {
            "suggestion": "block", "image_detail": {
              "suggestion": "block", "category": "porn", "ocr_text": "123", "time": 0, "detail": {
                {
                  "confidence": 0.676015138626099, "category": "porn", "suggestion": "block", "label": "pornography",
                  "confidence": 0.666015138626099, "category": "porn", "suggestion": "review", "label": "sexy_female",
                  "confidence": 0.666015138626099, "category": "xxx", "suggestion": "block", "label": "leader",
                  "confidence": 0.691423773765564, "category": "xxx", "suggestion": "block", "face_location": {
                    "top_left_x": 12, "top_left_y": 13, "bottom_right_x": 200, "bottom_right_y": 240, "label": "leader",
                    "confidence": 0.691423773765564, "category": "porn", "suggestion": "block", "face_location": {
                      "top_left_x": 12, "top_left_y": 13, "bottom_right_x": 100, "bottom_right_y": 2000, "label": "leader",
                      "confidence": 0.891423773765564, "category": "image_text", "suggestion": "block", "label": "qr_code",
                      "confidence": 0.891423773765564, "category": "image_text", "suggestion": "block", "label": "qr_code", "qr_content": "xxxxxxxx", "qr_location": {
                        "top_left_x": 12, "top_left_y": 13, "bottom_right_x": 100, "bottom_right_y": 2000,
                        "confidence": 0.891423773765564, "category": "image_text", "suggestion": "block", "label": "porn", "segments": [
                          {
                            "segment": "xxx", {
                              "segment": "xx"}]]]]], "audio_detail": {
                                "suggestion": "block", "label": "porn", "audio_text": "xxxx", "end_time": 10, "start_time": 0, "detail": {
                                  "confidence": 0.999117187582349, "label": "porn", "suggestion": "block", "segments": [
                                    {
                                      "segment": "xxx"}], {
                                        "confidence": 0.885117187582349, "label": "porn", "suggestion": "block"}]]]]}
                                }
                              }
                            }
                          }
                        }
                      }
                    }
                  }
                }
              }
            }
          }
        ]
      }
    }
  }
}
```

10 Using the Node.js SDK

10.1 Preparing a Node.js Development Environment

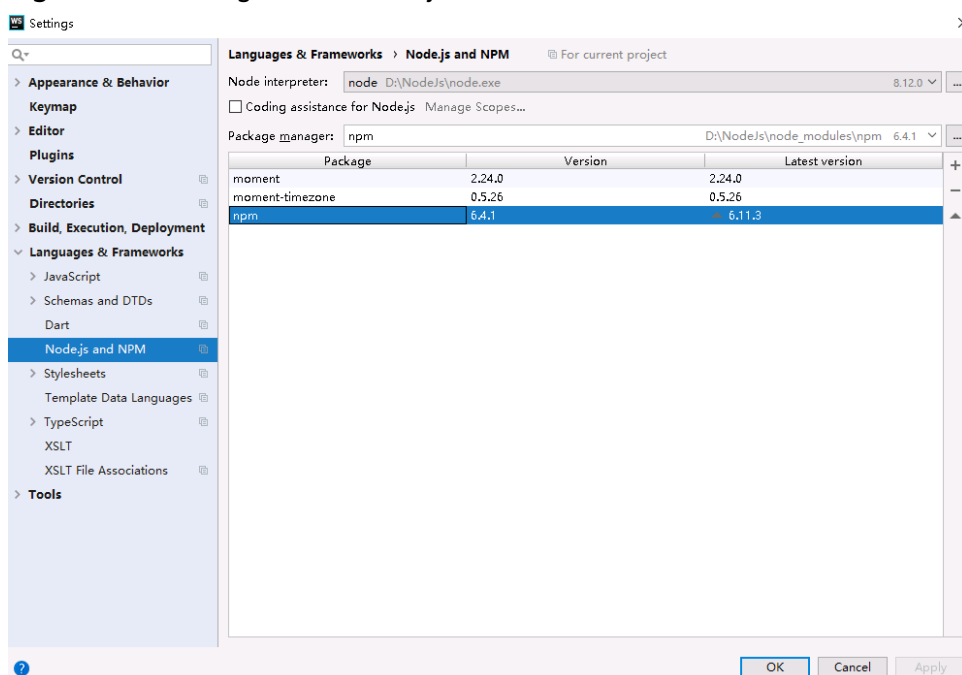
The JavaScript SDK of Content Moderation depends on the Node.js environment.

1. Download the recommended version from the [Node.js official website](#) and install it. Node.js 8.x or later is recommended. The following uses Node.js 8.12.0 as an example.
2. Download the latest version of WebStorm from [WebStorm's official website](#).
3. On the WebStorm page, choose **File > Settings > Languages & Frameworks > Node.js and NPM** to configure the Node.js environment.
4. Select the **Node.js and NPM** installation path, as shown in [Figure 10-1](#). After selecting the target **Node.js and NPM**, click **Apply** at the bottom of the page to complete the configuration.

NOTE

The JavaScript SDK of Content Moderation needs to depend on the moment-timezone and moment modules. You can run the **npm install** command to install the SDK, or click + in [Figure 10-1](#) to install the SDK using a tool.

Figure 10-1 Configure the Node.js environment



10.2 Importing a Node.js SDK into a Node.js Environment

Before you use an SDK, install **@huaweicloud/huaweicloud-sdk-core** and **@huaweicloud/huaweicloud-sdk-moderation**.

You are advised to use npm to install the SDK. Run the following command on the CLI:

```
npm install @huaweicloud/huaweicloud-sdk-core
npm i @huaweicloud/huaweicloud-sdk-moderation
```

10.3 SDK Calling Example

10.3.1 Moderation (Text)

10.3.1.1 Text Moderation (V3)

1. This section describes how to use the Text Moderation SDK by AK/SK authentication.

Change the value of **Text** in **TextDetectionDataReq** in the sample code to the text to be detected. Then run the code.

```
const core = require('@huaweicloud/huaweicloud-sdk-core');
const moderation = require("@huaweicloud/huaweicloud-sdk-moderation");
// Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
// store them in the configuration file or environment variables.
// In this example, the AK and SK are stored in environment variables for identity authentication.
// Before running this example, configure environment variables HUAWEICLOUD_SDK_AK,
// HUAWEICLOUD_SDK_SK, and HUAWEICLOUD_SDK_PROJECT_ID.
```

```
const ak = process.env.HUAWEICLOUD_SDK_AK;
const sk = process.env.HUAWEICLOUD_SDK_SK;
const projectId = process.env.HUAWEICLOUD_SDK_PROJECT_ID;

const endpoint = "https://moderation.ap-southeast-3.myhuaweicloud.com"; //Replace ap-southeast-3
with the region where the service is located.
const credentials = new core.BasicCredentials()
    .withAk(ak)
    .withSk(sk)
    .withProjectId(projectId)

const client = moderation.v3.ModerationClient.newBuilder()
    .withCredential(credentials)
    .withEndpoint(endpoint)
    .build();
const request = new moderation.v3.RunTextModerationRequest();
const body = new moderation.v3.TextDetectionReq();
const databody = new moderation.v3.TextDetectionDataReq();
databody.withText("test");
body.withData(databody);
body.withEventType("comment");
request.withBody(body);
const result = client.runTextModeration(request);
result.then(result => {
    console.log("JSON.stringify(result)::" + JSON.stringify(result));
}).catch(ex => {
    console.log("exception:" + JSON.stringify(ex));
});
```

2. The code is successfully executed if the **text moderation result** is displayed on the console.

```
JSON.stringify(result)::{"request_id": "d81702cfd3599e103030c3d52d6f955f", "result": {"suggestion":
"pass", "label": "normal", "details": []}}
```

10.3.2 Moderation (Image)

10.3.2.1 Image Moderation (V3)

1. This section describes how to use the Image Moderation SDK by AK/SK authentication.

Use **Url** or **Image** to configure the image information (**Url** is used in the sample code) and run the code.

```
const core = require('@huaweicloud/huaweicloud-sdk-core');
const moderation = require("@huaweicloud/huaweicloud-sdk-moderation");
// Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
store them in the configuration file or environment variables.
// In this example, the AK and SK are stored in environment variables for identity authentication.
Before running this example, configure environment variables HUAWEICLOUD_SDK_AK,
HUAWEICLOUD_SDK_SK, and HUAWEICLOUD_SDK_PROJECT_ID.
const ak = process.env.HUAWEICLOUD_SDK_AK;
const sk = process.env.HUAWEICLOUD_SDK_SK;
const projectId = process.env.HUAWEICLOUD_SDK_PROJECT_ID;

const endpoint = "https://moderation.ap-southeast-3.myhuaweicloud.com"; //Replace ap-southeast-3
with the region where the service is located.
const credentials = new core.BasicCredentials()
    .withAk(ak)
    .withSk(sk)
    .withProjectId(projectId)
const client = moderation.v3.ModerationClient.newBuilder()
    .withCredential(credentials)
    .withEndpoint(endpoint)
    .build();
const request = new moderation.v3.CheckImageModerationRequest();
```

```
const body = new moderation.v3.ImageDetectionReq();
const listbodyCategories = new Array();
listbodyCategories.push("porn");
body.withUrl("http://www.xxx.xxx");
body.withCategories(listbodyCategories);
body.withEventType("head_image");
request.withBody(body);
const result = client.checkImageModeration(request);
result.then(result => {
    console.log("JSON.stringify(result)::" + JSON.stringify(result));
}).catch(ex => {
    console.log("exception:" + JSON.stringify(ex));
});
```

2. The code is successfully executed if the **image moderation result** is displayed on the console.

```
JSON.stringify(result)::{"request_id": "69b424920668cb15e6d25eef879a023b", "result": {"suggestion":
"block", "category": "image_text", "details": [{"suggestion": "block", "category": "image_text",
"confidence": 1.0, "qr_location": {"top_left_x": 74, "top_left_y": 66, "bottom_right_x": 151,
"bottom_right_y": 142}, "qr_content": "http://xxxxx/xxxxx", "label": "qr_code"}, {"suggestion": "block",
"category": "image_text", "confidence": 0.98779297, "label": "ad"}, {"suggestion": "block", "category":
"image_text", "confidence": 1.0, "label": "qr_code"}], "ocr_text": "xxxxxxxxx"}}
```

10.3.3 Moderation (Video)

10.3.3.1 Creating a Video Moderation Job

1. This section describes how to create a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use `withUrls` of the `RunCreateVideoModerationJobRequest` class to configure the URL of the video to be reviewed (only the URL mode is supported). After the configuration is complete, run the code.

```
const core = require('@huaweicloud/huaweicloud-sdk-core');
const moderation = require("@huaweicloud/huaweicloud-sdk-moderation");
// Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
store them in the configuration file or environment variables.
// In this example, the AK and SK are stored in environment variables for identity authentication.
Before running this example, configure environment variables HUAWEICLOUD_SDK_AK,
HUAWEICLOUD_SDK_SK, and HUAWEICLOUD_SDK_PROJECT_ID.
const ak = process.env.HUAWEICLOUD_SDK_AK;
const sk = process.env.HUAWEICLOUD_SDK_SK;
const projectId = process.env.HUAWEICLOUD_SDK_PROJECT_ID;

const endpoint = "https://moderation.ap-southeast-3.myhuaweicloud.com"; //Replace ap-southeast-3
with the region where the service is located.
const credentials = new core.BasicCredentials()
    .withAk(ak)
    .withSk(sk)
    .withProjectId(projectId)
const client = moderation.v3.ModerationClient.newBuilder()
    .withCredential(credentials)
    .withEndpoint(endpoint)
    .build();

const request = new moderation.v3.RunCreateVideoModerationJobRequest();
const body = new moderation.v3.VideoCreateRequest();
const listbodyAudioCategories = new Array();
listbodyAudioCategories.push("porn");
const listbodyImageCategories = new Array();
listbodyImageCategories.push("porn");
const databody = new moderation.v3.VideoCreateRequestData();
databody.withUrl("http://xxx.xx.xxx")
    .withFrameInterval(5);
body.withAudioCategories(listbodyAudioCategories);
body.withImageCategories(listbodyImageCategories);
```

```
body.withEventType("default");
body.withData(databody);
request.withBody(body);
const result = client.runCreateVideoModerationJob(request);
result.then(result => {
  console.log("JSON.stringify(result)::" + JSON.stringify(result));
}).catch(ex => {
  console.log("exception:" + JSON.stringify(ex));
});
```

2. The console returns the submission result of the creation request and the **video moderation job creation result**.

```
JSON.stringify(result)::{"request_id": "dbbcb75d1a174bfa899a38be38fdd107", "job_id": "xxx"}
```

10.3.3.2 Querying a Video Moderation Job

1. This section describes how to query a video moderation job using the video moderation SDK and AK/SK.

In the sample code, you can use withJobId of the RunQueryVideoModerationJobRequest class to configure the ID of the review task. After the configuration is complete, run the code.

```
const core = require('@huaweicloud/huaweicloud-sdk-core');
const moderation = require("@huaweicloud/huaweicloud-sdk-moderation");
// Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and
// store them in the configuration file or environment variables.
// In this example, the AK and SK are stored in environment variables for identity authentication.
// Before running this example, configure environment variables HUAWEICLOUD_SDK_AK,
// HUAWEICLOUD_SDK_SK, and HUAWEICLOUD_SDK_PROJECT_ID.
const ak = process.env.HUAWEICLOUD_SDK_AK;
const sk = process.env.HUAWEICLOUD_SDK_SK;
const projectId = process.env.HUAWEICLOUD_SDK_PROJECT_ID;

const endpoint = "https://moderation.ap-southeast-3.myhuaweicloud.com"; //Replace ap-southeast-3
// with the region where the service is located.
const credentials = new core.BasicCredentials()
  .withAk(ak)
  .withSk(sk);
const client = moderation.v3.ModerationClient.newBuilder()
  .withCredential(credentials)
  .withEndpoint(endpoint)
  .build();
const request = new moderation.v3.RunQueryVideoModerationJobRequest();
request.jobId = "xxxx"; //Enter your job ID.
const result = client.runQueryVideoModerationJob(request);
result.then(result => {
  console.log("JSON.stringify(result)::" + JSON.stringify(result));
}).catch(ex => {
  console.log("exception:" + JSON.stringify(ex));
});
```

2. The console returns the submission result of the query request and the **video moderation job query result**.

```
JSON.stringify(result)::{"request_id":"xxxx","job_id":"xxx","status":"succeeded","request_params":
{"data":{"url":"xxx","frame_interval":5},"event_type":"default","image_categories":
["porn","terrorism","image_text"],"audio_categories":
["porn","ad","moan","abuse"],"callback":"xxx","create_time":"2022-07-30T08:57:11.011Z","update_time":
"2022-07-30T08:57:14.014Z","result":{"suggestion":"block","image_detail":
[{"suggestion":"block","category":"porn","ocr_text":"123","time":0,"detail":
[{"confidence":0.676015138626099,"category":"porn","suggestion":"block","label":"pornography"},
{"confidence":0.666015138626099,"category":"porn","suggestion":"review","label":"sexy_female"},
{"confidence":0.666015138626099,"category":"xxx","suggestion":"block","label":"leader"},
{"confidence":0.691423773765564,"category":"xxx","suggestion":"block","face_location":
{"top_left_x":12,"top_left_y":13,"bottom_right_x":200,"bottom_right_y":240,"label":"leader"},
{"confidence":0.691423773765564,"category":"porn","suggestion":"block","face_location":
{"top_left_x":12,"top_left_y":13,"bottom_right_x":100,"bottom_right_y":2000,"label":"leader"},
{"confidence":0.891423773765564,"category":"image_text","suggestion":"block","label":"qr_code"},
{"confidence":0.891423773765564,"category":"image_text","suggestion":"block","label":"qr_code","qr_c
```

```
ontent":"xxxxxxx","qr_location":  
{"top_left_x":12,"top_left_y":13,"bottom_right_x":100,"bottom_right_y":2000}},  
{"confidence":0.891423773765564,"category":"image_text","suggestion":"block","label":"porn","segme  
nts":[{"segment":"xxx"},{"segment":"xx"}]}},{"audio_detail":  
[{"suggestion":"block","label":"porn","audio_text":"xxxxx","end_time":10,"start_time":0,"detail":  
[{"confidence":0.999117187582349,"label":"porn","suggestion":"block","segments":  
[{"segment":"xxx"}]}],{"confidence":0.885117187582349,"label":"porn","suggestion":"block"}]}]}
```