

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	POST /v2/{project_id}/moderation/text
Image Moderation	POST /v2/{project_id}/moderation/image
Image Moderation (Batch)	POST /v2/{project_id}/moderation/image/batch
Image Moderation (Asynchronous Batch) - Submitting a Task	POST /v2/{project_id}/moderation/image/batch/jobs
Image Moderation (Asynchronous Batch) - Querying the Result	GET /v2/{project_id}/moderation/image/batch

Service	API
Image Moderation (Asynchronous Batch) - Querying the Task List	GET /v2/{project_id}/moderation/image/batch/jobs
Creating a Video Moderation Job	POST /v3/{project_id}/moderation/video/jobs
Querying a Video Moderation Job	GET /v3/{project_id}/moderation/video/jobs/{job_id}

2 Applying for a Service

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

3 Obtaining Authentication Information

- Step 1** Log in to the management 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 3.0.55:

```
<dependency>
  <groupId>com.huaweicloud.sdk</groupId>
  <artifactId>huaweicloud-sdk-moderation</artifactId>
  <version>3.0.55</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 (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can use the **withText** method of the **TextDetectionItemsReq** class to configure the text to be detected, and execute the code.

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

import com.alibaba.fastjson.JSON;

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.v2.ModerationClient;
import com.huaweicloud.sdk.moderation.v2.region.ModerationRegion;
import com.huaweicloud.sdk.moderation.v2.model.RunTextModerationResponse;
import com.huaweicloud.sdk.moderation.v2.model.TextDetectionReq;
import com.huaweicloud.sdk.moderation.v2.model.RunTextModerationRequest;
import com.huaweicloud.sdk.moderation.v2.model.TextDetectionItemsReq;

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

public class RunTextModerationSolution {

    public static void main(String[] args) {
        //Enter your AK/SK.
        String ak = "<YOUR AK>";
        String sk = "<YOUR SK>";

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

        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the region where the
            service is located, for example, cn-north-4.
            .build();
        RunTextModerationRequest request = new RunTextModerationRequest();
        TextDetectionReq body = new TextDetectionReq();
        List<TextDetectionItemsReq> listbodyItems = new ArrayList<>();
        listbodyItems.add(
            new TextDetectionItemsReq()
                .withText("text") //Enter the text to be detected.
                .withType("content")
        );
        List<String> listbodyCategories = new ArrayList<>();
        listbodyCategories.add("abuse");
        listbodyCategories.add("porn");
        listbodyCategories.add("contraband");
        listbodyCategories.add("flood");
        body.withItems(listbodyItems);
        body.withCategories(listbodyCategories);
        request.withBody(body);
        try {
            RunTextModerationResponse response = client.runTextModeration(request);
            System.out.println(response.getHttpStatusCode());
            System.out.println(JSON.toJSONString(response));
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
```

```
e.printStackTrace();
System.out.println(e.getStatusCode());
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.

```
200
{"result":{"suggestion":"block","detail":{"contraband":["potassium arsenite"],"porn":["nude
chat"]}},"statusCode":200}
```

5.3.2 Moderation (Image)

5.3.2.1 Image Moderation (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can use the **withUrl** or **withImage** method of the **ImageDetectionReq** class to configure image information (either the **image** or **url** parameter). This section uses **url** as an example.

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

import com.alibaba.fastjson.JSON;

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.v2.ModerationClient;
import com.huaweicloud.sdk.moderation.v2.region.ModerationRegion;
import com.huaweicloud.sdk.moderation.v2.model.RunImageModerationRequest;
import com.huaweicloud.sdk.moderation.v2.model.ImageDetectionReq;
import com.huaweicloud.sdk.moderation.v2.model.RunImageModerationResponse;

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

public class RunImageModerationSolution {
    public static void main(String[] args) {
        //Enter your AK/SK.
        String ak = "<YOUR AK>";
        String sk = "<YOUR SK>";
        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);
        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the region where the
service is located.
            .build();
        RunImageModerationRequest request = new RunImageModerationRequest();
        ImageDetectionReq body = new ImageDetectionReq();
        List<ImageDetectionReq.CategoriesEnum> listbodyCategories = new ArrayList<>();
        listbodyCategories.add(ImageDetectionReq.CategoriesEnum.fromValue("porn"));
        body.withCategories(listbodyCategories);
        body.withModerationRule("default");
        body.withUrl("https://XXX.jpg"); //Replace it with an image URL that can be accessed from the
Internet.
        request.withBody(body);
        try {
```

```
RunImageModerationResponse response = client.runImageModeration(request);
System.out.println(response.getHttpStatusCode());
System.out.println(JSON.toJSONString(response));
} 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.

```
200
{"statusCode":200,"result":{"categorySuggestions":{"porn":"pass"},"detail":{"porn":{"confidence":0.9883,"label":"normal"},"confidence":0.0039,"label":"porn"},"confidence":0.0078,"label":"sexy"},"confidence":2.0E-4,"label":"fascist"},"confidence":1.0E-4,"label":"cult"},"confidence":2.0E-4},"confidence":1.0E-4},"confidence":1.0E-4,"label":"kidnap"},"confidence":6.0E-4,"label":"riot"},"confidence":1.0E-4,"label":"parade"},"confidence":2.0E-4,"label":"corpse"},"confidence":1.0E-4,"label":"bloody"},"confidence":1.0E-4,"label":"knife"},"confidence":1.0E-4,"label":"gun"},"confidence":2.0E-4,"label":"military_weapon"},"confidence":0.0,"label":"special_characters"},"confidence":0.9994,"label":"normal"},"suggestion":"pass"}}
```

Process finished with exit code 0

5.3.2.2 Image Moderation (Batch) (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can use the **withUrls** method of the **ImageBatchModerationReq** class to configure the URLs of the images to be reviewed, and then execute the code.

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

import com.alibaba.fastjson.JSON;

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.v2.ModerationClient;
import com.huaweicloud.sdk.moderation.v2.region.ModerationRegion;
import com.huaweicloud.sdk.moderation.v2.model.RunImageBatchModerationRequest;
import com.huaweicloud.sdk.moderation.v2.model.ImageBatchModerationReq;
import com.huaweicloud.sdk.moderation.v2.model.RunImageBatchModerationResponse;

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

public class RunImageBatchModerationSolution {
    public static void main(String[] args) {
        //Enter your AK/SK.
        String ak = "<YOUR AK>";
        String sk = "<YOUR SK>";
        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);
        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the region where the
```

```
service is located.
    .build();
    RunImageBatchModerationRequest request = new RunImageBatchModerationRequest();
    ImageBatchModerationReq body = new ImageBatchModerationReq();
    List<ImageBatchModerationReq.CategoriesEnum> listbodyCategories = new ArrayList<>();
    listbodyCategories.add(ImageBatchModerationReq.CategoriesEnum.fromValue("porn"));
    List<String> listbodyUrls = new ArrayList<>();
    listbodyUrls.add("https://XXX.jpg");//Replace it with an image URL that can be accessed from
the Internet.
    body.withThreshold((double) 0);
    body.withCategories(listbodyCategories);
    body.withUrls(listbodyUrls);
    request.withBody(body);
    try {
        RunImageBatchModerationResponse response = client.runImageBatchModeration(request);
        System.out.println(response.getHttpStatusCode());
        System.out.println(JSON.toJSONString(response));
    } 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 batch Image Moderation result is displayed on the console.

```
200
{"statusCode":200,"result":[{"categorySuggestions":{"porn":"pass"},"detail":{"porn":{"confidence":0.9883,"label":"normal"},"confidence":0.0039,"label":"porn"},"confidence":0.0078,"label":"sexy"}, {"confidence":2.0E-4,"label":"fascist"},"confidence":1.0E-4,"label":"cult"},"confidence":2.0E-4, {"confidence":1.0E-4,"label":"kidnap"},"confidence":6.0E-4,"label":"riot"},"confidence": 1.0E-4,"label":"parade"},"confidence":2.0E-4,"label":"corpse"},"confidence":1.0E-4,"label":"bloody"}, {"confidence":1.0E-4,"label":"knife"},"confidence":1.0E-4,"label":"gun"},"confidence": 2.0E-4,"label":"military_weapon"},"confidence":0.0,"label":"special_characters"},"confidence": 0.9994,"label":"normal"}],"suggestion":"pass","url":"https://sdk-obs-source-save.obs.cn-north-4.myhuaweicloud.com/terrorism.jpg"}]}
```

5.3.2.3 Image Moderation (Asynchronous Batch) (V2)

5.3.2.3.1 Submitting a Task

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

Replace the AK/SK in the sample code with the actual AK/SK. You can use the **withUrls** method of the **RunTaskSubmitRequest** class to configure the URLs of the images to be reviewed, and then execute the code.

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

import com.alibaba.fastjson.JSON;

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.v2.ModerationClient;
import com.huaweicloud.sdk.moderation.v2.region.ModerationRegion;
import com.huaweicloud.sdk.moderation.v2.model.RunTaskSubmitRequest;
import com.huaweicloud.sdk.moderation.v2.model.TaskSubmitReq;
```

```
import com.huaweicloud.sdk.moderation.v2.model.RunTaskSubmitResponse;

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

public class RunTaskSubmitSolution {
    public static void main(String[] args) {
        //Enter your AK/SK.
        String ak = "<YOUR AK>";
        String sk = "<YOUR SK>";
        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);
        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the region where the
service is located.
            .build();
        RunTaskSubmitRequest request = new RunTaskSubmitRequest();
        TaskSubmitReq body = new TaskSubmitReq();
        List<TaskSubmitReq.CategoriesEnum> listbodyCategories = new ArrayList<>();
        listbodyCategories.add(TaskSubmitReq.CategoriesEnum.fromValue("porn"));
        List<String> listbodyUrls = new ArrayList<>();
        listbodyUrls.add("https://XXX.jpg"); //Replace it with an image URL that can be accessed from
the Internet.
        body.withCategories(listbodyCategories);
        body.withUrls(listbodyUrls);
        request.withBody(body);
        try {
            RunTaskSubmitResponse response = client.runTaskSubmit(request);
            System.out.println(response.getHttpStatusCode());
            System.out.println(JSON.toJSONString(response));
        } 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 result of submitting the Image Moderation (Asynchronous Batch) task is displayed on the console.

```
200
{"httpStatusCode":200,"result":{"jobId":"7f6a5881-7774-40cf-903b-4548914b55a3"}}
Process finished with exit code 0
```

5.3.2.3.2 Querying a Task

1. This section describes how to use the Image Moderation (Asynchronous Batch) SDK for querying a task by AK/SK authentication.

Replace the AK/SK in the sample code with the actual AK/SK. Use the **withJobId** method of the **RunCheckResultRequest** class to configure the ID of the moderation task, and then execute the code.

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

import com.alibaba.fastjson.JSON;

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.v2.ModerationClient;
import com.huaweicloud.sdk.moderation.v2.region.ModerationRegion;
import com.huaweicloud.sdk.moderation.v2.model.RunCheckResultRequest;
import com.huaweicloud.sdk.moderation.v2.model.RunCheckResultResponse;

public class RunCheckResultSolution {

    public static void main(String[] args) {
        //Enter your AK/SK.
        String ak = "<YOUR AK>";
        String sk = "<YOUR SK>";

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

        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the region where the
service is located.
            .build();
        RunCheckResultRequest request = new RunCheckResultRequest();
        request.withJobId("7f6a5881-7774-40cf-903b-4548914b55a3");
        try {
            RunCheckResultResponse response = client.runCheckResult(request);
            System.out.println(response.getHttpStatusCode());
            System.out.println(JSON.toJSONString(response));
        } 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());
        }
    }
}
```

1. If **200** is displayed on the console, the code is successfully executed. The result of querying the Image Moderation (Asynchronous Batch) task is displayed on the console.

```
200
{"statusCode":200,"result":{"createTime":"2021-08-13T03:46:30Z","items":[{"categorySuggestions":
{
    "porn":"pass", "detail":{"porn":[{"confidence":0.9883,"label":"normal"}, {"confidence":
0.0039,"label":"porn"}, {"confidence":0.0078,"label":"sexy"}], "terrorism":{"confidence":
2.0E-4,"label":"terrorist"}, {"confidence":2.0E-4,"label":"fascist"}, {"confidence":1.0E-4,"label":"cult"},
{"confidence":2.0E-4}, {"confidence":1.0E-4}, {"confidence":1.0E-4,"label":"kidnap"}, {"confidence":
6.0E-4,"label":"riot"}, {"confidence":1.0E-4,"label":"parade"}, {"confidence":2.0E-4,"label":"corpse"},
{"confidence":1.0E-4,"label":"bloody"}, {"confidence":1.0E-4,"label":"knife"}, {"confidence":
1.0E-4,"label":"gun"}, {"confidence":2.0E-4,"label":"military_weapon"}, {"confidence":
0.0,"label":"special_characters"}, {"confidence":
0.9994,"label":"normal"}]}, "suggestion":"pass", "url":"https://sdk-obs-source-save.obs.cn-
north-4.myhuaweicloud.com/
terrorism.jpg"}, {"jobId":"7f6a5881-7774-40cf-903b-4548914b55a3", "status":"finish", "updateTime":"202
1-08-13T03:46:30Z"}]}
```

Process finished with exit code 0

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.

Replace the AK/SK in the sample code with the actual AK/SK. You can use the **withUrls** method of the **RunCreateVideoModerationJobRequest** class to configure the URLs of the videos to be reviewed, and then execute 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) {
        //Enter your AK/SK.
        String ak = "<YOUR AK>";
        String sk = "<YOUR SK>";

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

        ModerationClient client = ModerationClient.newBuilder()
            .withCredential(auth)
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the region where the
service is located.
            .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.xxx")
            .withFrameInterval(5.5f);
        body.withCallback("http://xxx.xx.xxx");
        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 creation result of the video moderation job.

```
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.

Replace the AK/SK in the sample code with the actual AK/SK. Use the **withJobId** method of the **RunQueryVideoModerationJobRequest** class to configure the ID of the moderation task, and then execute 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) {  
        //Enter your AK/SK.  
        String ak = "<YOUR AK>";  
        String sk = "<YOUR SK>";  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        ModerationClient client = ModerationClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(ModerationRegion.valueOf("xxx")) //Replace xxx with the region where the  
service is located.  
            .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 query result of the video moderation job.

```
class RunQueryVideoModerationJobResponse {  
    requestId: a6dcb5c9f993efb977c8898e1ef91c87  
    jobId: 01663171200_48ce5a21498e47af8f2a49773c3d0fce  
    status: running
```

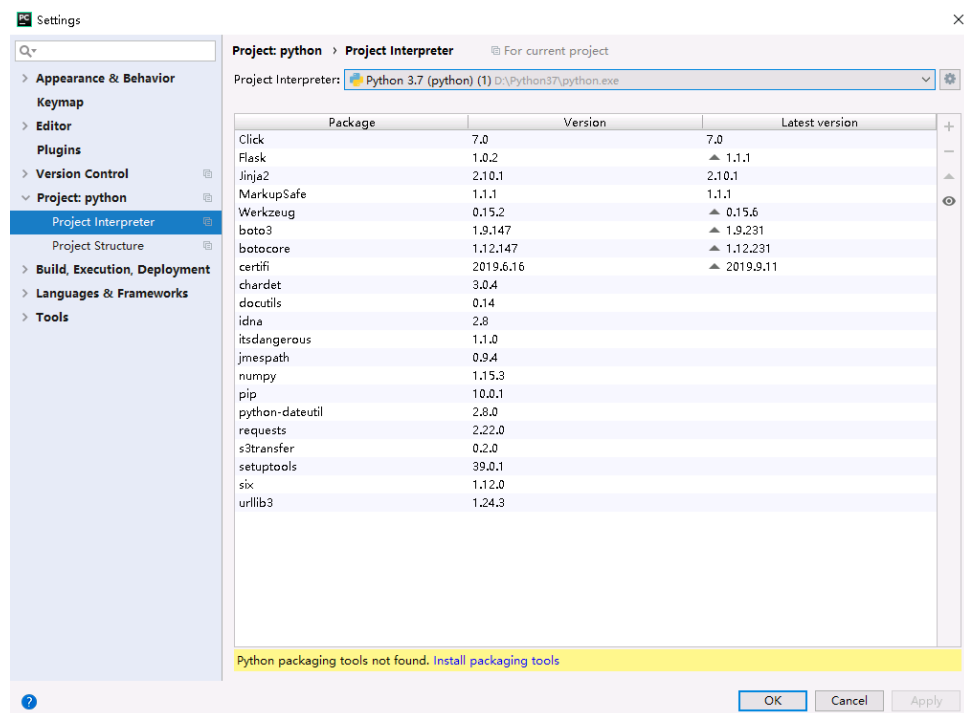
```
requestParams: class VideoModerationResultRequestParams {  
  data: class VideoModerationResultRequestParamsData {  
    url: http://xxx.xx.xxxx  
    frameInterval: 5  
  }  
  eventType: default  
  imageCategories: [porn, image_text, terrorism]  
  audioCategories: [ad, porn]  
  callback: http://xxx.xx.xxxx  
}  
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:

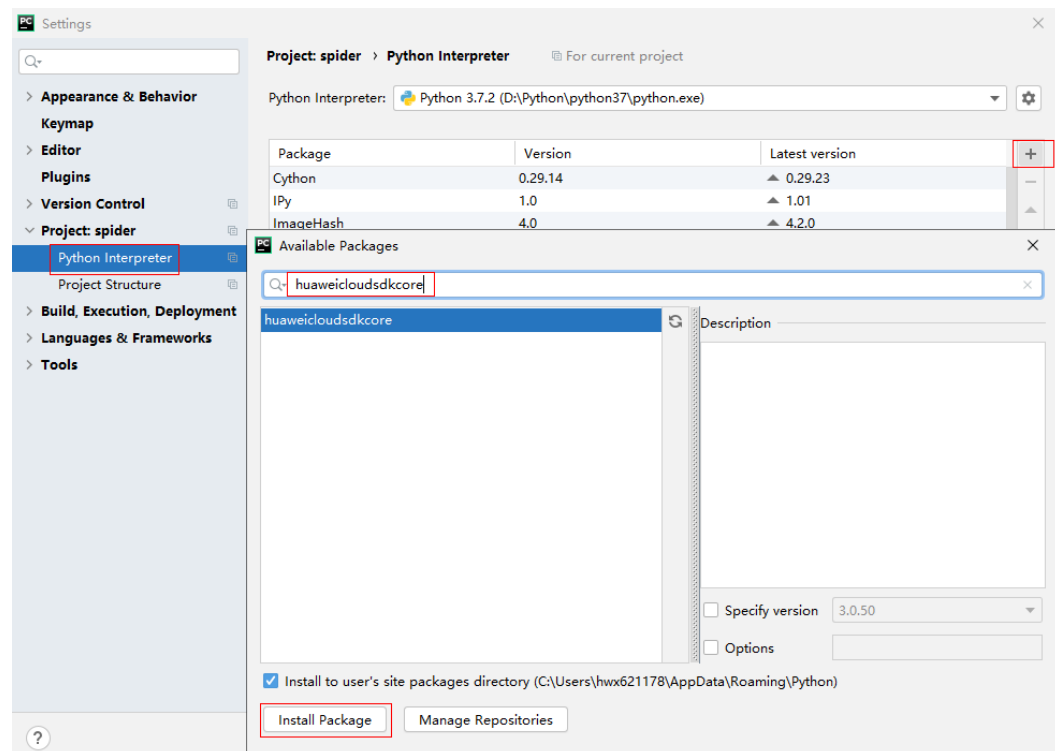
Install the Python SDK using pip commands:

```
# 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 **huaweicloudsdkmoderation**, and click **Install Package** in the lower left corner to install the packages.

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 (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. Set the value of **text** in **TextDetectionItemsReq** in the code to configure the text to be detected, and execute the code.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkmoderation.v2.region.moderation_region import ModerationRegion
from huaweicloudsdkmoderation.v2 import
ModerationClient,RunTextModerationRequest,TextDetectionItemsReq,TextDetectionReq

if __name__ == "__main__":
    //Enter your AK/SK.
    ak = "<YOUR AK>"
    sk = "<YOUR SK>"

    credentials = BasicCredentials(ak, sk)

    client = ModerationClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(ModerationRegion.value_of("xxx")) \ //Replace xxx with the region where the
```

```
service is located.
    .build()

    try:
        request = RunTextModerationRequest()
        listTextDetectionItemsReqItemsbody = [
            TextDetectionItemsReq(
                text="text", //Enter the text to be detected.
                type="content"
            )
        ]
        listTextDetectionReqCategoriesbody = [
            "porn",
            "abuse",
            "contraband",
            "flood"
        ]
        request.body = TextDetectionReq(
            items=listTextDetectionItemsReqItemsbody,
            categories=listTextDetectionReqCategoriesbody
        )
        response = client.run_text_moderation(request)
        print(response.status_code)
        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.

```
200
{"result": {"suggestion": "block", "detail": {"contraband": ["potassium arsenite"], "porn": ["nude chat"]}}}
```

6.3.2 Moderation (Image)

6.3.2.1 Image Moderation (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can modify either the **image** or **url** parameter in **ImageDetectionReq** to configure image information. This section uses **url** as an example.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkmoderation.v2.region.moderation_region import ModerationRegion
from huaweicloudsdkmoderation.v2 import
ModerationClient,RunImageModerationRequest,ImageDetectionReq

if __name__ == "__main__":
    //Enter your AK/SK.
    ak = "<YOUR AK>"
    sk = "<YOUR SK>"

    credentials = BasicCredentials(ak, sk)

    client = ModerationClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(ModerationRegion.value_of("xxx")) \ //Replace xxx with the region where the
service is located.
```



```
.build()

try:
    request = RunImageModerationRequest()
    listImageDetectionReqCategoriesbody = [
        "porn",
    ]
    request.body = ImageDetectionReq(
        threshold=0,
        categories=listImageDetectionReqCategoriesbody,
        moderation_rule="default",
        url="https://XXX.jpg" //Replace it with an image URL that can be accessed from the Internet.
    )
    response = client.run_image_moderation(request)
    print(response.status_code)
    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.

```
200
{"result": {"detail": { "porn": [{"confidence": 0.9883, "label": "normal"}, {"confidence": 0.0039, "label": "porn"}, {"confidence": 0.0078, "label": "sexy"}]}, "suggestion": "pass", "category_suggestions": { "porn": "pass"}}}
Process finished with exit code 0
```

6.3.2.2 Image Moderation (Batch) (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can set **Urls** in **ImageBatchModerationReq** to configure the URLs of the images to be reviewed, and then execute the code.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkmoderation.v2.region.moderation_region import ModerationRegion
from huaweicloudsdkmoderation.v2 import
ModerationClient,RunImageBatchModerationRequest,ImageBatchModerationReq

if __name__ == "__main__":
    //Enter your AK/SK.
    ak = "<YOUR AK>"
    sk = "<YOUR SK>"

    credentials = BasicCredentials(ak, sk)

    client = ModerationClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(ModerationRegion.value_of("xxx")) \ //Replace xxx with the region where the
service is located.
        .build()

    try:
        request = RunImageBatchModerationRequest()
        listImageBatchModerationReqCategoriesbody = [
            "porn",
        ]
        listImageBatchModerationReqUrlsbody = [
            "https://XXX.jpg" //Replace it with an image URL that can be accessed from the Internet.
        ]
```

```
request.body = ImageBatchModerationReq(
    threshold=0,
    categories=listImageBatchModerationReqCategoriesbody,
    urls=listImageBatchModerationReqUrlsbody
)
response = client.run_image_batch_moderation(request)
print(response.status_code)
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 batch Image Moderation result is displayed on the console.

```
200
{'result': [{'category_suggestions': {
    'porn': 'pass',
  },
  'detail': {
    'porn': [{'confidence': 0.9883, 'label': 'normal'},
             {'confidence': 0.0039, 'label': 'porn'},
             {'confidence': 0.0078, 'label': 'sexy'}],
    'suggestion': 'pass',
    'url': 'https://sdk-obs-source-save.obs.cn-north-4.myhuaweicloud.com/terrorism.jpg']}]}
```

Process finished with exit code 0

6.3.2.3 Image Moderation (Asynchronous Batch) (V2)

6.3.2.3.1 Submitting a Task

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

Replace the AK/SK in the sample code with the actual AK/SK. You can set **urls** in **TaskSubmitReq** to configure the URLs of the images to be reviewed, and then execute the code.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkmoderation.v2.region.moderation_region import ModerationRegion
from huaweicloudsdkmoderation.v2 import *
from huaweicloudsdkmoderation.v2 import ModerationClient, RunTaskSubmitRequest, TaskSubmitReq

if __name__ == "__main__":
    //Enter your AK/SK.
    ak = "<YOUR AK>"
    sk = "<YOUR SK>"

    credentials = BasicCredentials(ak, sk)

    client = ModerationClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(ModerationRegion.value_of("xxx")) \ //Replace xxx with the region where the
service is located.
        .build()

    try:
        request = RunTaskSubmitRequest()
        listTaskSubmitReqCategoriesbody = [
            "porn",
        ]
```

```
listTaskSubmitReqUrlsbody = [  
    "https://XXX.jpg" //Replace it with an image URL that can be accessed from the Internet.  
]  
request.body = TaskSubmitReq(  
    categories=listTaskSubmitReqCategoriesbody,  
    urls=listTaskSubmitReqUrlsbody  
)  
response = client.run_task_submit(request)  
print(response.status_code)  
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 result of submitting the Image Moderation (Asynchronous Batch) task is displayed on the console.

```
200  
{'result': {'job_id': 'xxx'}}
```

```
Process finished with exit code 0
```

6.3.2.3.2 Querying a Task

1. This section describes how to use the Image Moderation (Asynchronous Batch) SDK for querying a task by AK/SK authentication.

Replace the AK/SK in the sample code with the actual AK/SK. Set **job_id** in **RunCheckResultRequest** to configure the ID of the moderation task, and then execute the code.

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

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkmoderation.v2.region.moderation_region import ModerationRegion  
from huaweicloudsdkmoderation.v2 import *  
from huaweicloudsdkmoderation.v2 import ModerationClient,RunCheckResultRequest  
  
if __name__ == "__main__":  
    //Enter your AK/SK.  
    ak = "<YOUR AK>"  
    sk = "<YOUR SK>"  
  
    credentials = BasicCredentials(ak, sk)  
  
    client = ModerationClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(ModerationRegion.value_of("xxx")) \  
        //Replace xxx with the region where the  
        service is located.  
        .build()  
  
    try:  
        request = RunCheckResultRequest()  
        request.job_id = "xxx" //Enter your job ID.  
        response = client.run_check_result(request)  
        print(response.status_code)  
        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 result of querying the Image Moderation (Asynchronous Batch) task is displayed on the console.

```
200
{'result': {'create_time': '2021-08-04T08:30:41Z',
            'items': [{'category_suggestions': {
                        'porn': 'pass',
                        },
                      'detail': {
                        'porn': [{'confidence': 0.9883,
                                  'label': 'normal'},
                                 {'confidence': 0.0039,
                                  'label': 'porn'},
                                 {'confidence': 0.0078,
                                  'label': 'sexy'}],
                        'suggestion': 'pass',
                        'url': 'https://sdk-obs-source-save.obs.cn-north-4.myhuaweicloud.com/terrorism.jpg'}],
            'job_id': 'xxx',
            'status': 'finish',
            'update_time': '2021-08-04T08:30:41Z'}}
```

Process finished with exit code 0

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.

Replace the AK/SK in the sample code with the actual AK/SK. You can use the **withUrls** method of the **RunCreateVideoModerationJobRequest** class to configure the URLs of the videos to be reviewed, and then execute 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 *

if __name__ == "__main__":
    //Enter your AK/SK.
    ak = "<YOUR AK>"
    sk = "<YOUR SK>"

    credentials = BasicCredentials(ak, sk) \

    client = ModerationClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(ModerationRegion.value_of("xxx")) \ //Replace xxx with the region where the
service is located.
        .build()

    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.xxx",
```

```
        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 creation result of the video moderation job.

```
{"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.

Replace the AK/SK in the sample code with the actual AK/SK. Use the **withJobId** method of the **RunQueryVideoModerationJobRequest** class to configure the ID of the moderation task, and then execute 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 *  
  
if __name__ == "__main__":  
    //Enter your AK/SK.  
    ak = "<YOUR AK>"  
    sk = "<YOUR SK>"  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = ModerationClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(ModerationRegion.value_of("xxx")) \  
        //Replace xxx with the region where the  
service is located.  
        .build()  
  
    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 query result of the video moderation job.

```
{"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":"xxxx  
xxxx","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 (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. Set **text** in **TextDetectionItemsReq** in the code to configure the text to be detected, and execute 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.V2;
using HuaweiCloud.SDK.Moderation.V2.Model;

namespace RunTextModerationSolution
{
    class Program
    {
        static void Main(string[] args)
        {
            //Enter your AK/SK.
            const string ak = "<YOUR AK>";
            const string sk = "<YOUR SK>";

            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 RunTextModerationRequest
            {
            };
            List<TextDetectionItemsReq> listTextDetectionItemsReqItems = new
List<TextDetectionItemsReq>();
            listTextDetectionItemsReqItems.Add(new TextDetectionItemsReq()
            {
                Text = "text", //Enter the text to be detected.
                Type = "content"
            });
            List<String> listTextDetectionReqCategories = new List<String>();
            listTextDetectionReqCategories.Add("porn");
            listTextDetectionReqCategories.Add("abuse");
            listTextDetectionReqCategories.Add("contraband");
            listTextDetectionReqCategories.Add("flood");
            req.Body = new TextDetectionReq()
            {
                Items = listTextDetectionItemsReqItems,
                Categories = listTextDetectionReqCategories
            };

            try
            {
                var resp = client.RunTextModeration(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.ErrorMessage);
    }
    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
{'result': {'detail': {'contraband': ['potassium arsenite'], 'porn': ['nude chat']},
'suggestion': 'block'}}
```

7.3.2 Moderation (Image)

7.3.2.1 Image Moderation (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can set **image** or **url** (this section uses **url** as an example) in **ImageDetectionReq** to configure information of the image to be reviewed. Then execute 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.V2;
using HuaweiCloud.SDK.Moderation.V2.Model;

namespace RunImageModerationSolution
{
    class Program
    {
        static void Main(string[] args)
        {
            //Enter your AK/SK.
            const string ak = "<YOUR AK>";
            const string sk = "<YOUR SK>";

            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 RunImageModerationRequest
            {
            };
            List<ImageDetectionReq.CategoriesEnum> listImageDetectionReqCategories = new
List<ImageDetectionReq.CategoriesEnum>();
listImageDetectionReqCategories.Add(ImageDetectionReq.CategoriesEnum.FromValue("porn"));
            req.Body = new ImageDetectionReq()
            {
                Threshold = 0,
            }
        }
    }
}
```

```
Categories = listImageDetectionReqCategories,
ModerationRule = "default",
Url = "https://XXX.jpg" //Replace it with an image URL that can be accessed from the
Internet.
};

try
{
    var resp = client.RunImageModeration(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.ErrorMessage);
}
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
{"result": {"category_suggestions": {
    "porn": "pass",
  },
  "detail": {"ad": [{"confidence": 0.0, "label": "ad"},
    {"confidence": 1.0, "label": "normal"}],
  "porn": [{"confidence": 0.9883, "label": "normal"},
    {"confidence": 0.0039, "label": "porn"},
    {"confidence": 0.0078, "label": "sexy"}],
  "suggestion": "pass"}}
```

7.3.2.2 Image Moderation (Batch) (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can set **Urls** in **ImageBatchModerationReq** to configure the URLs of the images to be reviewed, and then execute 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.V2;
using HuaweiCloud.SDK.Moderation.V2.Model;

namespace RunImageBatchModerationSolution
{
    class Program
    {
        static void Main(string[] args)
        {
            //Enter your AK/SK.
        }
    }
}
```

```
const string ak = "<YOUR AK>";
const string sk = "<YOUR SK>";

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 RunImageBatchModerationRequest
{
};
List<ImageBatchModerationReq.CategoriesEnum> listImageBatchModerationReqCategories =
new List<ImageBatchModerationReq.CategoriesEnum>();

listImageBatchModerationReqCategories.Add(ImageBatchModerationReq.CategoriesEnum.FromValue(
"porn"));
List<String> listImageBatchModerationReqUrls = new List<String>();
listImageBatchModerationReqUrls.Add("https://XXX.jpg"); //Replace it with an image URL
that can be accessed from the Internet.
req.Body = new ImageBatchModerationReq()
{
    Threshold = 0,
    Categories = listImageBatchModerationReqCategories,
    Urls = listImageBatchModerationReqUrls
};

try
{
    var resp = client.RunImageBatchModeration(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. If **200** is displayed on the console, the code is successfully executed. The batch Image Moderation result is displayed on the console.

```
200
{"result": [{"category_suggestions": {"porn": "pass",
},
'detail': {'ad': [{"confidence": 0.0, 'label': 'ad'},
{'confidence': 1.0, 'label': 'normal'}],
'porn': [{"confidence": 0.9883, 'label': 'normal'},
{'confidence': 0.0039, 'label': 'porn'},
{'confidence': 0.0078, 'label': 'sexy'}],
'suggestion': 'pass',
'url': 'https://sdk-obs-source-save.obs.cn-north-4.myhuaweicloud.com/terrorism.jpg'}}}]
```

7.3.2.3 Image Moderation (Asynchronous Batch) (V2)

7.3.2.3.1 Submitting a Task

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

Replace the AK/SK in the sample code with the actual AK/SK. You can set **Urls** in **RunTaskSubmitRequest** to configure the URLs of the images to be reviewed, and then execute 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.V2;
using HuaweiCloud.SDK.Moderation.V2.Model;

namespace RunTaskSubmitSolution
{
    class Program
    {
        static void Main(string[] args)
        {
            //Enter your AK/SK.
            const string ak = "<YOUR AK>";
            const string sk = "<YOUR SK>";

            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 RunTaskSubmitRequest
            {
            };
            List<TaskSubmitReq.CategoriesEnum> listTaskSubmitReqCategories = new
List<TaskSubmitReq.CategoriesEnum>();
            listTaskSubmitReqCategories.Add(TaskSubmitReq.CategoriesEnum.FromValue("porn"));
            List<String> listTaskSubmitReqUrls = new List<String>();
            listTaskSubmitReqUrls.Add("https://XXX.jpg"); //Replace it with an image URL that can be
accessed from the Internet.
            req.Body = new TaskSubmitReq()
            {
                Categories = listTaskSubmitReqCategories,
                Urls = listTaskSubmitReqUrls
            };

            try
            {
                var resp = client.RunTaskSubmit(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.ErrorMessage);
    }
    catch (ConnectionException connectionException)
    {
        Console.WriteLine(connectionException.ErrorMessage);
    }
}
}
```

2. If **200** is displayed on the console, the code is successfully executed. The result of submitting the Image Moderation (Asynchronous Batch) task is displayed on the console.

```
200
{'result': {'job_id': 'xxx'}}
```

7.3.2.3.2 Querying a Task

1. This section describes how to use the Image Moderation (Asynchronous Batch) SDK for querying a task by AK/SK authentication.

Replace the AK/SK in the sample code with the actual AK/SK. Set **JobId** in **RunCheckResultRequest** to configure the ID of the moderation task, and then execute 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.V2;
using HuaweiCloud.SDK.Moderation.V2.Model;

namespace RunCheckResultSolution
{
    class Program
    {
        static void Main(string[] args)
        {
            //Enter your AK/SK.
            const string ak = "<YOUR AK>";
            const string sk = "<YOUR SK>";

            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 RunCheckResultRequest
            {
                JobId = "2991572e-f503-11eb-a32d-88bd0dde8061"
            };

            try
            {
                var resp = client.RunCheckResult(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.ErrorMessage);
}
catch (ConnectionException connectionException)
{
    Console.WriteLine(connectionException.ErrorMessage);
}
}
}
```

1. If **200** is displayed on the console, the code is successfully executed. The result of querying the Image Moderation (Asynchronous Batch) task is displayed on the console.

```
200
{'result': {'create_time': '2021-08-04T08:30:41Z',
  'items': [{'category_suggestions': {
    'porn': 'pass',
  },
  'detail': {'ad': None,
    'porn': [{'confidence': 0.9883,
      'label': 'normal'},
    {'confidence': 0.0039,
      'label': 'porn'},
    {'confidence': 0.0078,
      'label': 'sexy'}]},
  'suggestion': 'pass',
  'url': 'https://sdk-obs-source-save.obs.cn-north-4.myhuaweicloud.com/terrorism.jpg'}],
  'job_id': 'xxx',
  'status': 'finish',
  'update_time': '2021-08-04T08:30:41Z'}}
```

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.

Replace the AK/SK in the sample code with the actual AK/SK. You can use the **withUrls** method of the **RunCreateVideoModerationJobRequest** class to configure the URLs of the videos to be reviewed, and then execute 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)
        {
            //Enter your AK/SK.
            const string ak = "<YOUR AK>";
```

```
const string sk = "<YOUR SK>";

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 creation result of the video moderation job.

```
200
{
    "request_id":"dbbcb75d1a174bfa899a38be38fdd107",
    "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.

Replace the AK/SK in the sample code with the actual AK/SK. Use the **withJobId** method of the **RunQueryVideoModerationJobRequest** class to configure the ID of the moderation task, and then execute 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)
        {
            //Enter your AK/SK.
            const string ak = "<YOUR AK>";
            const string sk = "<YOUR SK>";

            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.ErrorMessage);
            }
            catch (ConnectionException connectionException)
            {
                Console.WriteLine(connectionException.ErrorMessage);
            }
        }
    }
}
```

2. The console returns the query result of the video moderation job.


```
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 (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. Set **Text** in **TextDetectionItemsReq** in the code to configure the text to be detected, and execute 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/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/region"
)

func main() {
    //Enter your AK/SK.
    ak := "<YOUR AK>"
    sk := "<YOUR SK>"

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

    client := moderation.NewModerationClient(
        moderation.ModerationClientBuilder().
            WithRegion(region.ValueOf("cn-north-4")).
            WithCredential(auth).
            Build())

    request := &model.RunTextModerationRequest{}
    typeltemsTextDetectionItemsReq:= "content"
    var listItemsbody = []model.TextDetectionItemsReq{
        {
            Text: "text", //Enter the text to be detected.
            Type: &typeltemsTextDetectionItemsReq,
        },
    }
    var listCategoriesbody = []string{
        "porn",
        "abuse",
        "contraband",
        "flood",
    }
    request.Body = &model.TextDetectionReq{
        Items: listItemsbody,
        Categories: &listCategoriesbody,
    }
    response, err := client.RunTextModeration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

2. If the moderation result is displayed on the console, the code is successfully executed.

```
RunTextModerationResponse {"result":{"suggestion":"block","detail":{"contraband":["potassium arsenite"],"porn":["nude chat"]}}}
```

Process exiting with code: 0

8.3.2 Moderation (Image)

8.3.2.1 Image Moderation (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can use either the **image** or **url** parameter (representing the URL or Base64 code of the image) to configure the image information. This section uses **url** as an example.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    moderation "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/region"
)

func main() {
    //Enter your AK/SK.
    ak := "<YOUR AK>"
    sk := "<YOUR SK>"

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

    client := moderation.NewModerationClient(
        moderation.ModerationClientBuilder().
            WithRegion(region.ValueOf("cn-north-4")).
            WithCredential(auth).
            Build())

    request := &model.RunImageModerationRequest{}
    var listCategoriesbody = []model.ImageDetectionReqCategories{
        model.GetImageDetectionReqCategoriesEnum().PORN,
    }
    thresholdImageDetectionReq:= float32(0)
    moderationRuleImageDetectionReq:= "default"
    urlImageDetectionReq:= "https://XXX.jpg" //Replace it with an image URL that can be accessed
    from the Internet.
    request.Body = &model.ImageDetectionReq{
        Threshold: &thresholdImageDetectionReq,
        Categories: &listCategoriesbody,
        ModerationRule: &moderationRuleImageDetectionReq,
        Url: &urlImageDetectionReq,
    }
    response, err := client.RunImageModeration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

2. If the moderation result is displayed on the console, the code is successfully executed.

```
RunImageModerationResponse {"result":{"detail":{"porn":{"confidence":0.9883,"label":"normal"},
{"confidence":0.0039,"label":"porn"},{"confidence":
0.0078,"label":"sexy"}}, "suggestion":"pass", "category_suggestions":{"porn":"pass",}}
Process exiting with code: 0
```

8.3.2.2 Image Moderation (Batch) (V2)

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

Replace the AK/SK in the sample code with the actual AK/SK. You can set **Urls** in **ImageBatchModerationReq** to configure the URLs of the images to be reviewed, and then execute 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/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/region"
)

func main() {
    //Enter your AK/SK.
    ak := "<YOUR AK>"
    sk := "<YOUR SK>"

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

    client := moderation.NewModerationClient(
        moderation.ModerationClientBuilder().
            WithRegion(region.ValueOf("cn-north-4")).
            WithCredential(auth).
            Build())

    request := &model.RunImageBatchModerationRequest{}
    var listCategoriesbody = []model.ImageBatchModerationReqCategories{
        model.GetImageBatchModerationReqCategoriesEnum().PORN,
    }
    var listUrlsbody = []string{
        "https://XXX.jpg", //Replace it with an image URL that can be accessed from the Internet.
    }
    thresholdImageBatchModerationReq:= float64(0)
    request.Body = &model.ImageBatchModerationReq{
        Threshold: &thresholdImageBatchModerationReq,
        Categories: &listCategoriesbody,
        Urls: listUrlsbody,
    }
    response, err := client.RunImageBatchModeration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

2. If the moderation result is displayed on the console, the code is successfully executed.

```
RunImageBatchModerationResponse {"result":[{"url":"https://sdk-obs-source-save.obs.cn-north-4.myhuaweicloud.com/terrorism.jpg","suggestion":"pass","detail":{"porn":{"confidence":0.9883,"label":"normal"},"confidence":0.0039,"label":"porn"},"confidence":0.0078,"label":"sexy"}],"category_suggestions":{"porn":"pass"}}}
Process exiting with code: 0
```

8.3.2.3 Image Moderation (Asynchronous Batch) (V2)

8.3.2.3.1 Submitting a Task

1. This section describes how to use the Image Moderation (Asynchronous Batch) SDK for submitting a task by AK/SK authentication.

Replace the AK/SK in the sample code with the actual AK/SK. You can set **Urls** in **TaskSubmitReq** to configure the URLs of the images to be reviewed, and then execute 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/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/region"
)

func main() {
    //Enter your AK/SK.
    ak := "<YOUR AK>"
    sk := "<YOUR SK>"

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

    client := moderation.NewModerationClient(
        moderation.ModerationClientBuilder().
            WithRegion(region.ValueOf("cn-north-4")).
            WithCredential(auth).
            Build())

    request := &model.RunTaskSubmitRequest{}
    var listCategoriesbody = []model.TaskSubmitReqCategories{
        model.GetTaskSubmitReqCategoriesEnum().PORN,
    }
    var listUrlsbody = []string{
        "https://XXX.jpg", //Replace it with an image URL that can be accessed from the Internet.
    }
    request.Body = &model.TaskSubmitReq{
        Categories: &listCategoriesbody,
        Urls: listUrlsbody,
    }
    response, err := client.RunTaskSubmit(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

2. If the task submission result is displayed on the console, the code is successfully executed.

```
RunTaskSubmitResponse {"result":{"job_id":"xxx"}}
Process exiting with code: 0
```

8.3.2.3.2 Querying a Task

1. This section describes how to use the Image Moderation (Asynchronous Batch) SDK for querying a task by AK/SK authentication.

Replace the AK/SK in the sample code with the actual AK/SK. Use **JobId** of **RunCheckResultRequest** to configure the ID of the moderation task, and then execute 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/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/model"
)
```



```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/moderation/v2/region"
  )

  func main() {
    //Enter your AK/SK.
    ak := "<YOUR AK>"
    sk := "<YOUR SK>"

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

    client := moderation.NewModerationClient(
      moderation.ModerationClientBuilder().
        WithRegion(region.ValueOf("cn-north-4")).
        WithCredential(auth).
        Build()
    )

    request := &model.RunCheckResultRequest{}
    request.JobId = "70e952b5-5fa3-4d18-9ce4-75bba7226d7c"
    response, err := client.RunCheckResult(request)
    if err == nil {
      fmt.Printf("%+v\n", response)
    } else {
      fmt.Println(err)
    }
  }
}
```

2. If the moderation result is displayed on the console, the code is successfully executed.

```
RunCheckResultResponse {"result":
{"job_id":"xxx","status":"finish","create_time":"2021-08-05T03:44:37Z","update_time":"2021-08-05T03:4
4:37Z","items":[{"url":"https://sdk-obs-source-save.obs.cn-north-4.myhuaweicloud.com/
terrorism.jpg","suggestion":"pass","detail":{"porn":{"confidence":0.9883,"label":"normal"},
{"confidence":0.0039,"label":"porn"},{"confidence":0.0078,"label":"sexy"}],"category_suggestions":
{"porn":"pass",}}}
Process exiting with code: 0
```

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.

Replace the AK/SK in the sample code with the actual AK/SK. You can use the **withUrls** method of the **RunCreateVideoModerationJobRequest** class to configure the URLs of the videos to be reviewed, and then execute 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() {
    //Enter your AK/SK.
    ak := "<YOUR AK>"
    sk := "<YOUR SK>"

    auth := basic.NewCredentialsBuilder().
      WithAk(ak).
```

```
WithSk(sk).
Build()

client := moderation.NewModerationClient(
    moderation.ModerationClientBuilder().
        WithRegion(region.ValueOf("xxx")). //Replace xxx with the region where the service is
located.
        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.xxx",
    FrameInterval: &frameIntervalData,
}
callbackVideoCreateRequest:= "http://xxx.xx.xxx"
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)
}
}
```

- The console returns the creation result of the video moderation job.
RunCreateVideoModerationJobResponse{"request_id":"dbbcb75d1a174bfa899a38be38fdd107",
"job_id": "xxx"}

8.3.3.2 Querying a Video Moderation Job

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

Replace the AK/SK in the sample code with the actual AK/SK. Use the **withJobId** method of the **RunQueryVideoModerationJobRequest** class to configure the ID of the moderation task, and then execute 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() {
    //Enter your job ID.
    ak := "<YOUR AK>"
    sk := "<YOUR SK>"

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

```
Build()

client := moderation.NewModerationClient(
    moderation.ModerationClientBuilder().
        WithRegion(region.ValueOf("xxx")). //Replace xxx with the region where the service is located.
        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 query result of the video moderation job.

```
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_content":"xxxxx
xxx","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"}]}]}]}
```