

Alibaba Cloud

Resource Access Management SDK Reference

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Document conventions

Style	Description	Example
 Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings> Network> Set network type .
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click OK .
Courier font	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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1. RAM SDK Reference

1.1. RAM SDK overview

RAM SDKs support Java, .NET, Python, PHP, Node.js, and Go programming languages.

The following table provides the download links and sample document links of the supported SDKs.

Alibaba Cloud SDK	RAM SDK	Sample document
Alibaba Cloud SDK for Java	Alibaba Cloud RAM SDK for Java	RAM SDK for Java
Alibaba Cloud SDK for .NET	Alibaba Cloud RAM SDK for .NET	RAM SDK for .NET
Alibaba Cloud SDK for Python	Alibaba Cloud RAM SDK for Python	RAM SDK for Python
Alibaba Cloud SDK for PHP	Alibaba Cloud RAM SDK for PHP	RAM SDK for PHP
Alibaba Cloud SDK for Node.js	Alibaba Cloud RAM SDK for Node.js	RAM SDK for Node.js
Alibaba Cloud SDK for Go	Alibaba Cloud RAM SDK for Go	RAM SDK for Go

1.2. RAM SDK for Java

This topic describes how to install RAM SDK for Java and provides an example about how to use the SDK for Java.

Background information

- To use an SDK for Java, you must install the core library of Alibaba Cloud SDK for Java (`aliyun-java-sdk-core`) and the RAM SDK (`aliyun-java-sdk-ram`).
- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about RAM API operations, see [List of operations by function](#).

Install the SDK for Java


You can use one of the following methods to install the SDK for Java. For more information about how to install the SDK for Java, see [Quick start](#).

- Method 1: (Recommended) Add dependencies by using Maven
 - i. Use Maven to create a project.

```
mvn archetype:generate -DgroupId=com.aliyun.ram.sample \  
-DartifactId=ram-sdk-sample \  
-Dpackage=com.aliyun.ram.sample \  
-Dversion=1.0-SNAPSHOT
```

ii. Add the following dependencies to the *pom.xml* file of the project:

```
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>aliyun-java-sdk-ram</artifactId>
  <version>2.0.7</version>
</dependency>
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>aliyun-java-sdk-core</artifactId>
  <version>4.4.6</version>
</dependency>
```

 **Note** You can visit the [Maven repository](#) to obtain the latest version of the `aliyun-java-sdk-core` package.

- **Method 2: Download the JAR files of the SDK for Java and add them to your project**

You can use this method to install the SDK for Java regardless of whether you are using Eclipse or IntelliJ as the integrated development environment (IDE). You can download the JAR files from the following links:

- [Java SDK](#)
- [RAM SDK](#)

Example

The following code provides an example on how to call the CreateUser API operation by using the SDK for Java. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
import com.aliyuncs.DefaultAcsClient;
import com.aliyuncs.IAcsClient;
import com.aliyuncs.exceptions.ClientException;
import com.aliyuncs.exceptions.ServerException;
import com.aliyuncs.profile.DefaultProfile;
import com.google.gson.Gson;
import java.util.*;
import com.aliyuncs.ram.model.v20150501.*;

public class CreateUser {

    public static void main(String[] args) {

        // Construct an Alibaba Cloud client that is used to initiate requests.
        // When you construct the client, specify the AccessKey ID and AccessKey secret.
        DefaultProfile profile = DefaultProfile.getProfile("cn-hangzhou", "<accessKeyId>", "<accessSecret
>");
        IAcsClient client = new DefaultAcsClient(profile);

        // Construct a request and configure the request parameters.
        CreateUserRequest request = new CreateUserRequest();
        request.setRegionId("cn-hangzhou");
        request.setUserName("<UserName>");

        // Initiate the request and obtain a response.
        try {
            CreateUserResponse response = client.getAcsResponse(request);
            System.out.println(new Gson().toJson(response));
        } catch (ServerException e) {
            e.printStackTrace();
        } catch (ClientException e) {
            System.out.println("ErrCode:" + e.getErrCode());
            System.out.println("ErrMsg:" + e.getErrMsg());
            System.out.println("RequestId:" + e.getRequestId());
        }
    }
}
```

1.3. RAM SDK for .NET

This topic describes how to install RAM SDK for .NET and provides an example about how to use the SDK for .NET.

Background information

- To use an SDK for .NET, you must install the core library of Alibaba Cloud SDK for .NET (`alibabacloud-sdk-core`) and the RAM SDK (`alibabacloud-sdk-ram`).
- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about RAM API operations, see [List of operations by function](#).

Install the SDK for .NET

For information about how to install the SDK for .NET, see [Get started](#).

You can download the installation packages of the SDK for .NET from the following links:

- [.NET SDK](#)
- [RAM SDK](#)

Example

The following code provides an example on how to call the `CreateUser` API operation by using the SDK for .NET. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.


```
using System;
using System.Collections.Generic;
using Aliyun.Acs.Core;
using Aliyun.Acs.Core.Exceptions;
using Aliyun.Acs.Core.Profile;
using Aliyun.Acs.Ram.Model.V20150501;

namespace RamDemo
{
    class Program
    {
        static void Main(string[] args)
        {
            // Construct an Alibaba Cloud client that is used to initiate requests.
            // When you construct the client, specify the AccessKey ID and AccessKey secret.
            IClientProfile profile = DefaultProfile.GetProfile("cn-hangzhou", "<accessKeyId>", "<accessSecret>");
            DefaultAcsClient client = new DefaultAcsClient(profile);

            // Construct a request and configure the request parameters.
            var request = new CreateUserRequest();
            request.UserName = "<UserName>";

            // Initiate the request and obtain a response.
            try {
                var response = client.GetAcsResponse(request);
                Console.WriteLine(System.Text.Encoding.Default.GetString(response.HttpResponse.Content));
            }
            catch (ServerException e)
            {
                Console.WriteLine(e);
            }
            catch (ClientException e)
            {
                Console.WriteLine(e);
            }
        }
    }
}
```

1.4. RAM SDK for Python

This topic describes how to install RAM SDK for Python and provides an example about how to use the SDK for Python.

Background information

- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about RAM API operations, see [List of operations by function](#).

Install the SDK for Python

For information about how to install the SDK for Python, see [Quick start](#).

You can download the installation packages of the SDK for Python from the following links:

- [Python SDK](#)
- [RAM SDK](#)

Example

The following code provides an example on how to call the CreateUser API operation by using the SDK for Python. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
#!/usr/bin/env python
#coding=utf-8

from aliyunsdkcore.client import AcsClient
from aliyunsdkcore.acs_exception.exceptions import ClientException
from aliyunsdkcore.acs_exception.exceptions import ServerException
from aliyunsdkram.request.v20150501.CreateUserRequest import CreateUserRequest
# Construct an Alibaba Cloud client that is used to initiate requests.
# When you construct the client, specify the AccessKey ID and AccessKey secret.
client = AcsClient('<accessKeyId>', '<accessSecret>', 'cn-hangzhou')
# Construct a request.
request = CreateUserRequest()
request.set_accept_format('json')
# Configure parameters.
request.set_UserName("<UserName>")
# Initiate the request and obtain a response.
response = client.do_action_with_exception(request)
# python2: print(response)
print(str(response, encoding='utf-8'))
```

1.5. RAM SDK for PHP

This topic describes how to install RAM SDK for PHP and provides an example about how to use the SDK for PHP.

Background information

- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about RAM API operations, see [List of operations by function](#).

Install the SDK for PHP

For information about how to install the SDK for PHP, see [Quick start](#).

You can download the installation packages of the SDK for PHP from the following links:

- [PHP SDK](#)
- [RAM SDK](#)

Example

The following code provides an example on how to call the CreateUser API operation by using the SDK for PHP. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
<? php
use AlibabaCloud\Client\AlibabaCloud;
use AlibabaCloud\Client\Exception\ClientException;
use AlibabaCloud\Client\Exception\ServerException;

// Construct an Alibaba Cloud client that is used to initiate requests.
// When you construct the client, specify the AccessKey ID and AccessKey secret.
AlibabaCloud::accessKeyClient('<accessKeyId>', '<accessSecret>')
    ->regionId('cn-hangzhou')
    ->asDefaultClient();

// Configure parameters and initiate a request.
try {
    $result = AlibabaCloud::rpc()
        ->product('Ram')
        // ->scheme('https') // https | http
        ->version('2015-05-01')
        ->action('CreateUser')
        ->method('POST')
        ->host('ram.aliyuncs.com')
        ->options([
            'query' => [
                'RegionId' => "cn-hangzhou",
                'UserName' => "<UserName>",
            ],
        ])
        ->request();
    print_r($result->toArray());
} catch (ClientException $e) {
    echo $e->getErrorMessage() . PHP_EOL;
} catch (ServerException $e) {
    echo $e->getErrorMessage() . PHP_EOL;
}
```

1.6. RAM SDK for Node.js

This topic describes how to install RAM SDK for Node.js and provides an example about how to use the SDK for Node.js.

Background information

- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer

to debug API operations and dynamically generate SDK sample code.

- For information about RAM API operations, see [RAM API](#).

Install the SDK for Node.js

Run the following command to install the SDK for Node.js and add dependencies to the package.json file:

```
$ npm install @alicloud/pop-core --save
```

For information about how to install the SDK for Node.js, see [Get started](#).

You can download the installation packages of the SDK for Node.js from the following links:

- [Node.js SDK](#)
- [RAM SDK](#)

Example

The following code provides an example on how to call the CreateUser API operation by using the SDK for Node.js. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
const Core = require('@alicloud/pop-core');
// Construct an Alibaba Cloud client that is used to initiate requests.
// When you construct the client, specify the AccessKey ID and AccessKey secret.
var client = new Core({
  accessKeyId: '<accessKeyId>',
  accessKeySecret: '<accessSecret>',
  endpoint: 'https://ram.aliyuncs.com',
  apiVersion: '2015-05-01'
});
// Configure parameters.
var params = {
  "RegionId": "cn-hangzhou",
  "UserName": "<UserName>"
}

var requestOptions = {
  method: 'POST'
};
// Initiate a request and obtain a response.
client.request('CreateUser', params, requestOptions).then((result) => {
  console.log(JSON.stringify(result));
}, (ex) => {
  console.log(ex);
})
```

1.7. RAM SDK for Go

This topic describes how to install RAM SDK for Go and provides an example about how to use the SDK for Go.

Background information

- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about RAM API operations, see [RAM API](#).

Install the SDK for Go

For information about how to install the SDK for Go, see [Get started](#).

You can download the installation packages of the SDK for Go from the following links:

- [Go SDK](#)
- [RAM SDK](#)

Example

The following code provides an example on how to call the CreateUser API operation by using the SDK for Go. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
package main

import (
    "fmt"
    "github.com/aliyun/alibaba-cloud-sdk-go/services/ram"
)

func main() {
    // Construct an Alibaba Cloud client that is used to initiate requests.
    // When you construct the client, specify the AccessKey ID and AccessKey secret.
    client, err := ram.NewClientWithAccessKey("cn-hangzhou", "<accessKeyId>", "<accessSecret>")

    request := ram.CreateCreateUserRequest()
    request.Scheme = "https"

    // Configure parameters.
    request.UserName = "<UserName>"
    // Initiate a request and obtain a response.
    response, err := client.CreateUser(request)
    if err != nil {
        fmt.Print(err.Error())
    }
    fmt.Printf("response is %#v\n", response)
}
```

2.STS SDK Reference

2.1. STS SDK overview

STS SDKs support Java, .NET, Python, PHP, Node.js, and Go programming languages.

The following table provides the download links and sample document links of the supported SDKs.

Alibaba Cloud SDK	STS SDK	Sample document
Alibaba Cloud SDK for Java	Alibaba Cloud STS SDK for Java	STS SDK for Java
Alibaba Cloud SDK for .NET	Alibaba Cloud STS SDK for .NET	STS SDK for .NET
Alibaba Cloud SDK for Python	Alibaba Cloud STS SDK for Python	STS SDK for Python
Alibaba Cloud SDK for PHP	Alibaba Cloud STS SDK for PHP	STS SDK for PHP
Alibaba Cloud SDK for Node.js	Alibaba Cloud STS SDK for Node.js	STS SDK for Node.js
Alibaba Cloud SDK for Go	Alibaba Cloud STS SDK for Go	STS SDK for Go

2.2. STS SDK for Java

This topic describes how to install STS SDK for Java and provides an example about how to use the SDK for Java.

Background information

- To use an SDK for Java, you must install the core library of Alibaba Cloud SDK for Java (`aliyun-java-sdk-core`) and the STS SDK (`aliyun-java-sdk-sts`).
- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about STS API operations, see [What is STS?](#).
- For information about endpoints to access STS, see [Endpoints](#).

Install the SDK for Java


You can use one of the following methods to install the SDK for Java. For more information about how to install the SDK for Java, see [Quick start](#).

- Method 1: (Recommended) Add dependencies by using Maven
 - Use Maven to create a project.


```
mvn archetype:generate -DgroupId=com.aliyun.sts.sample \
-DartifactId=sts-sdk-sample \
-Dpackage=com.aliyun.sts.sample \
-Dversion=1.0-SNAPSHOT
```

ii. Add the following dependencies to the *pom.xml* file of the project:

```
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>aliyun-java-sdk-sts</artifactId>
  <version>3.0.0</version>
</dependency>
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>aliyun-java-sdk-core</artifactId>
  <version>4.4.6</version>
</dependency>
```

 **Note** You can visit the [Maven repository](#) to obtain the latest version of the `aliyun-java-sdk-core` package.

- **Method 2: Download the JAR files of the SDK for Java and add them to your project**

You can use this method to install the SDK for Java regardless of whether you are using Eclipse or IntelliJ as the integrated development environment (IDE). You can download the JAR files from the following links:

- [Java SDK](#)
- [STS SDK](#)

Example

The following code provides an example on how to call the AssumeRole API operation by using the SDK for Java. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
import com.aliyuncs.DefaultAcsClient;
import com.aliyuncs.IAcsClient;
import com.aliyuncs.exceptions.ClientException;
import com.aliyuncs.exceptions.ServerException;
import com.aliyuncs.profile.DefaultProfile;
import com.google.gson.Gson;
import java.util.*;
import com.aliyuncs.sts.model.v20150401.*;

public class AssumeRole {

    public static void main(String[] args) {

        // Construct an Alibaba Cloud client that is used to initiate requests.
        // When you construct the client, specify the AccessKey ID and AccessKey secret.
        DefaultProfile profile = DefaultProfile.getProfile("cn-hangzhou", "<accessKeyId>", "<accessSecret
>");
        IAcsClient client = new DefaultAcsClient(profile);

        // Construct a request and configure the request parameters.
        AssumeRoleRequest request = new AssumeRoleRequest();
        request.setRegionId("cn-hangzhou");
        request.setRoleArn("<RoleArn>");
        request.setRoleSessionName("<RoleSessionName>");

        // Initiate the request and obtain a response.
        try {
            AssumeRoleResponse response = client.getAcsResponse(request);
            System.out.println(new Gson().toJson(response));
        } catch (ServerException e) {
            e.printStackTrace();
        } catch (ClientException e) {
            System.out.println("ErrCode:" + e.getErrCode());
            System.out.println("ErrMsg:" + e.getErrMsg());
            System.out.println("RequestId:" + e.getRequestId());
        }
    }
}
```

2.3. STS SDK for .NET

This topic describes how to install STS SDK for .NET and provides an example about how to use the SDK for .NET.

Background information

- To use an SDK for .NET, you must install the core library of Alibaba Cloud SDK for .NET (`alibabacloud-sdk-core`) and the STS SDK (`alibabacloud-sts`).
- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about STS API operations, see [What is STS?](#).
- For information about endpoints to access STS, see [Endpoints](#).

Install the SDK for .NET

For information about how to install the SDK for .NET, see [Get started](#).

You can download the installation packages of the SDK for .NET from the following links:

- [.NET SDK](#)
- [STS SDK](#)

Example

The following code provides an example on how to call the AssumeRole API operation by using the SDK for .NET. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
using System;
using System.Collections.Generic;
using Aliyun.Acs.Core;
using Aliyun.Acs.Core.Exceptions;
using Aliyun.Acs.Core.Profile;
using Aliyun.Acs.Sts.Model.V20150401;

namespace StsDemo
{
    class Program
    {
        static void Main(string[] args)
        {
            // Construct an Alibaba Cloud client that is used to initiate requests.
            // When you construct the client, specify the AccessKey ID and AccessKey secret.
            IClientProfile profile = DefaultProfile.GetProfile("cn-hangzhou", "<accessKeyId>", "<accessSecret>");
            DefaultAcsClient client = new DefaultAcsClient(profile);
```

```
// Construct a request and configure the request parameters.
var request = new AssumeRoleRequest();
request.RoleArn = "<RoleArn>";
request.RoleSessionName = "<RoleSessionName>";

// Initiate the request and obtain a response.
try {
    var response = client.GetAcsResponse(request);
    Console.WriteLine(System.Text.Encoding.Default.GetString(response.HttpResponse.Content)
);
}
catch (ServerException e)
{
    Console.WriteLine(e);
}
catch (ClientException e)
{
    Console.WriteLine(e);
}
}
}
```

2.4. STS SDK for Python

This topic describes how to install STS SDK for Python and provides an example about how to use the SDK for Python.

Background information

- To use an SDK for Python, you must install the core library of Alibaba Cloud SDK for Python (`aliyun-python-sdk-core`) and the STS SDK (`aliyun-python-sdk-sts`).
- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about STS API operations, see [What is STS?](#).
- For information about endpoints to access STS, see [Endpoints](#).

Install the SDK for Python

For information about how to install the SDK for Python, see [Quick start](#).

You can download the installation packages of the SDK for Python from the following links:

- [Python SDK](#)

- [STS SDK](#)

Example

The following code provides an example on how to call the AssumeRole API operation by using the SDK for Python. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
#!/usr/bin/env python
#coding=utf-8

from aliyunsdkcore.client import AcsClient
from aliyunsdkcore.acs_exception.exceptions import ClientException
from aliyunsdkcore.acs_exception.exceptions import ServerException
from aliyunsdksts.request.v20150401.AssumeRoleRequest import AssumeRoleRequest

# Construct an Alibaba Cloud client that is used to initiate requests.
# When you construct the client, specify the AccessKey ID and AccessKey secret.
client = AcsClient('<accessKeyId>', '<accessSecret>', 'cn-hangzhou')

# Construct a request.
request = AssumeRoleRequest()
request.set_accept_format('json')

# Configure parameters.
request.set_RoleArn("<RoleArn>")
request.set_RoleSessionName("<RoleSessionName>")

# Initiate the request and obtain a response.
response = client.do_action_with_exception(request)
# python2: print(response)
print(str(response, encoding='utf-8'))
```

2.5. STS SDK for PHP

This topic describes how to install STS SDK for PHP and provides an example about how to use the SDK for PHP.

Background information

- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about STS API operations, see [What is STS?](#).
- For information about endpoints to access STS, see [Endpoints](#).

Install the SDK for PHP

For information about how to install the SDK for PHP, see [Quick start](#).

You can download the installation packages of the SDK for PHP from the following links:

- [PHP SDK](#)
- [STS SDK](#)

Example

The following code provides an example on how to call the AssumeRole API operation by using the SDK for PHP. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
<? php
use AlibabaCloud\Client\AlibabaCloud;
use AlibabaCloud\Client\Exception\ClientException;
use AlibabaCloud\Client\Exception\ServerException;

// Construct an Alibaba Cloud client that is used to initiate requests.
// When you construct the client, specify the AccessKey ID and AccessKey secret.
AlibabaCloud::accessKeyClient('<accessKeyId>', '<accessSecret>')
    ->regionId('cn-hangzhou')
    ->asDefaultClient();

// Configure parameters and initiate a request.
try {
    $result = AlibabaCloud::rpc()
        ->product('Sts')
        // ->scheme('https') // https | http
        ->version('2015-04-01')
        ->action('AssumeRole')
        ->method('POST')
        ->host('sts.aliyuncs.com')
        ->options([
            'query' => [
                'RegionId' => "cn-hangzhou",
                'RoleArn' => "<RoleArn>",
                'RoleSessionName' => "<RoleSessionName>",
            ],
        ])
        ->request();
    print_r($result->toArray());
} catch (ClientException $e) {
    echo $e->getErrorMessage() . PHP_EOL;
} catch (ServerException $e) {
    echo $e->getErrorMessage() . PHP_EOL;
}
```

2.6. STS SDK for Node.js

This topic describes how to install STS SDK for Node.js and provides an example about how to use the SDK for Node.js.

Background information

- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about STS API operations, see [What is STS?](#).
- For information about endpoints to access STS, see [Endpoints](#).

Install the SDK for Node.js

Run the following command to install the SDK for Node.js and add dependencies to the package.json file:

```
$ npm install @alicloud/pop-core --save
```

For information about how to install the SDK for Node.js, see [Get started](#).

You can download the installation packages of the SDK for Node.js from the following links:

- [Node.js SDK](#)
- [STS SDK](#)

Example

The following code provides an example on how to call the AssumeRole API operation by using the SDK for Node.js. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.


```
const Core = require('@alicloud/pop-core');

// Construct an Alibaba Cloud client that is used to initiate requests.
// When you construct the client, specify the AccessKey ID and AccessKey secret.
var client = new Core({
  accessKeyId: '<accessKeyId>',
  accessKeySecret: '<accessSecret>',
  endpoint: 'https://sts.aliyuncs.com',
  apiVersion: '2015-04-01'
});

// Configure parameters.
var params = {
  "RegionId": "cn-hangzhou",
  "RoleArn": "<RoleARN>",
  "RoleSessionName": "<RoleSessionName>"
}

var requestOptions = {
  method: 'POST'
};

// Initiate a request and obtain a response.
client.request('AssumeRole', params, requestOptions).then((result) => {
  console.log(JSON.stringify(result));
}, (ex) => {
  console.log(ex);
})
```

2.7. STS SDK for Go

This topic describes how to install STS SDK for Go and provides an example about how to use the SDK for Go.

Background information

- Alibaba Cloud provides [OpenAPI Explorer](#) to simplify API usage. You can use OpenAPI Explorer to debug API operations and dynamically generate SDK sample code.
- For information about STS API operations, see [What is STS?](#).
- For information about endpoints to access STS, see [Endpoints](#).

Install the SDK for Go

For information about how to install the SDK for Go, see [Get started](#).

You can download the installation packages of the SDK for Go from the following links:

- [Go SDK](#)
- [STS SDK](#)

Example

The following code provides an example on how to call the `AssumeRole` API operation by using the SDK for Go. For information about other API operations, visit [OpenAPI Explorer](#), debug API operations, and obtain sample code.

```
package main

import (
    "fmt"
    "github.com/aliyun/alibaba-cloud-sdk-go/services/sts"
)

func main() {

    // Construct an Alibaba Cloud client that is used to initiate requests.
    // When you construct the client, specify the AccessKey ID and AccessKey secret.
    client, err := sts.NewClientWithAccessKey("cn-hangzhou", "<accessKeyId>", "<accessSecret>")

    // Construct the request object.
    request := sts.CreateAssumeRoleRequest()
    request.Scheme = "https"

    // Configure parameters.
    request.RoleArn = "<RoleArn>"
    request.RoleSessionName = "<RoleSessionName>"

    // Initiate a request and obtain a response.
    response, err := client.AssumeRole(request)
    if err != nil {
        fmt.Print(err.Error())
    }
    fmt.Printf("response is %#v\n", response)
}
```