

Serverless Cloud Function

Getting Started

Product Documentation



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Getting Started

Creating Event Function in Console

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This document describes how to quickly create an event-triggered function in the console.

Compared with event-triggered functions, the HTTP-triggered functions provided by SCF focus more on optimizing web services. Click [here](#) to understand and quickly create an HTTP-triggered function.

Step 1. Sign up for a Tencent Cloud account

If you already have a Tencent Cloud account, ignore this step.

Step 2: Topping Up Online

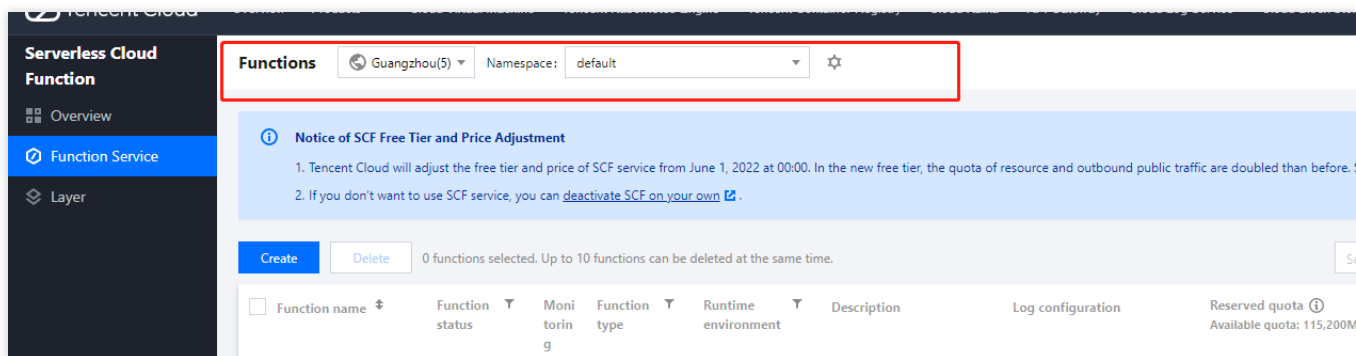
New SCF users are entitled to a certain monthly free tier of resource usage and invocations within three months of activation. SCF can be billed in a prepaid (subscription package) or postpaid (pay-as-you-go) manner. If you need to use other postpaid Tencent Cloud resources, top up your account first as instructed in [Payment Methods](#) before making purchases.

Step 3. Authorizing TKE

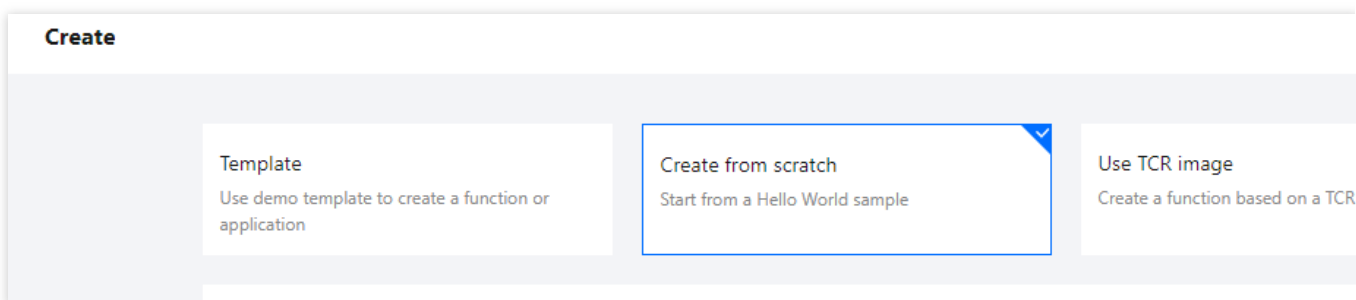
Log in to the [Tencent Cloud console](#), select **Products** > **Serverless Cloud Function** to enter the SCF console, and follow the prompts to authorize SCF. (If you have already authorized SCF, skip this step.)

Step 4. Create a function

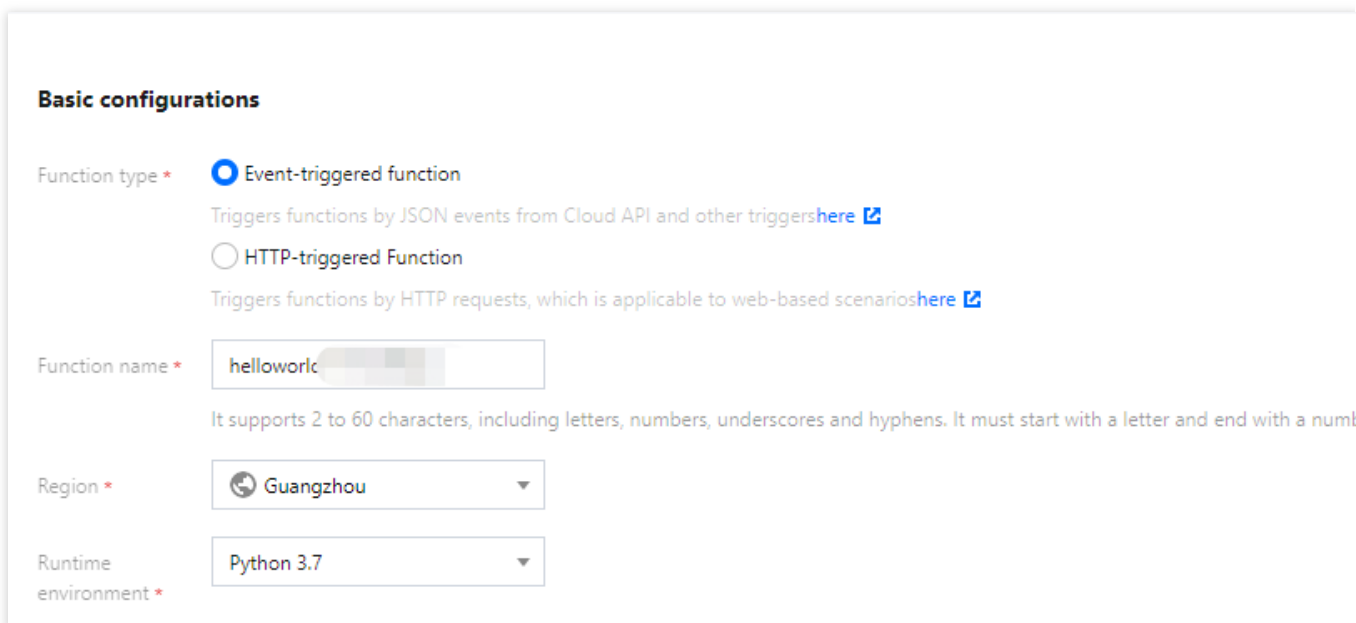
1. Click **Function Service** on the left sidebar to enter the **Function Service** page.
2. Select **Guangzhou** at the top of the page and click **Create** as shown below:



3. On the **Create function** page, select **Create from scratch** as shown below:



4. Configure the basic information of the function as shown below:



Function type: Select **Event-triggered function**.

Function name: The function name is automatically populated by default and can be modified as needed.

Region: The region is automatically populated by default and can be modified as needed.

Runtime environment: **Python 3.7** is automatically populated by default and can be modified as needed.

Time zone: SCF uses the UTC time by default, which you can modify by configuring the `TZ` environment variable. After you select a time zone, the `TZ` environment variable corresponding to the time zone will be added automatically.

- Keep the default options for **Function codes**, **Log configuration**, and **Advanced configuration**.
- Select **Create trigger** > **Custom** to create a trigger as shown below:

Trigger configurations

Create trigger Tencent Cloud CMQ will be discontinued by June 2022. No more CMQ triggers can be created. Existing CMQ triggers are not affected

Custom

Triggered alias/version

Trigger method

For API gateway triggers, the format of contents returned from SCF should be constructed in integ response method. For details, please see [here](#).

API service type Create API service Use an existing API service

API Service

Request method

Publishing environment

Authentication method

Integration response Enable

Base64 encoding Enable

Tag Enable
 Follow the function
 Custom tags

Create later

Trigger method: Select **API Gateway trigger**.

Integration Response: Deselect **Enable integration response**.

Keep the default options for other parameter.

- Click **Complete**. You can view the created function on the [Functions](#) page.

Step 5. Test in the cloud

Function deployment test

Trigger configuration test

On the **Function Management** page, select **Function code** and click **Test** to run the code with the test result returned as shown below:

FUNCTION MANAGEMENT

Function configuration **Function Codes** Layer Management Monitoring Information Log Query

Submitting Method ? • Online editing Execution ? • index.main_handler Runtime Environment Python2.7 [Devel](#)

Cloud Studio Edit Selection View Go Terminal Help Test Template:Hello World eve

EXPLORER **index.py** ×

> OPEN EDITORS

HELLO .vscode src index.py

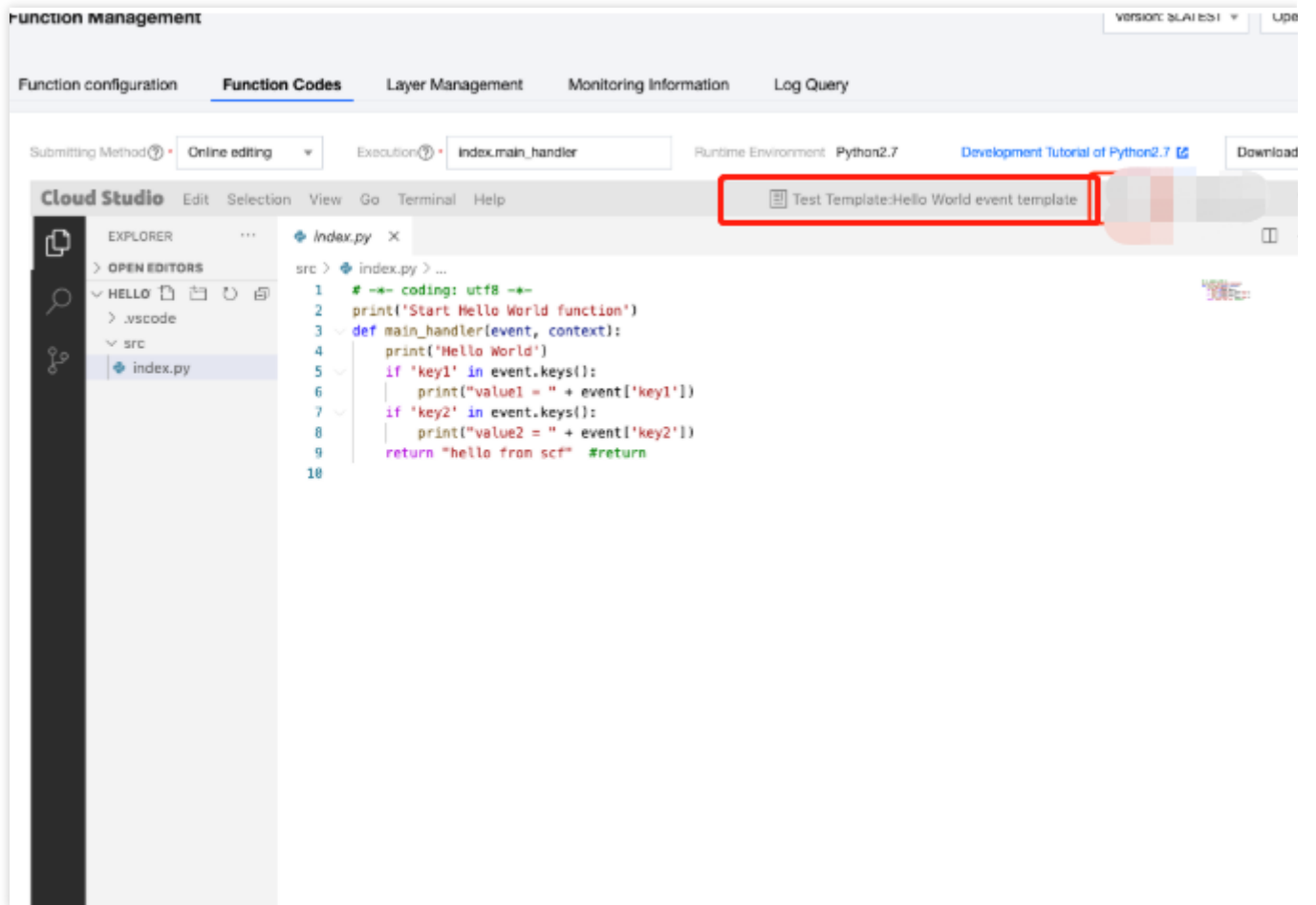
```
src > index.py > ...
1  # -*- coding: utf8 -*-
2  print('Start Hello World function')
3  def main_handler(event, context):
4      print('Hello World')
5      if 'key1' in event.keys():
6          print("value1 = " + event['key1'])
7      if 'key2' in event.keys():
8          print("value2 = " + event['key2'])
9      return "hello from scf" #return
10
```

Python 2.7.13 64-bit 0 0 Auto-deployment:Off Ln 1, Co

Deploy **Test**

Note:

If you need to replace the test template or its content, you can directly edit the function content or select **Current test template**, replace it, and then click **Save** as shown below:



Different test templates simulate different trigger message sources, and the messages passed between different triggers and SCF are data structures agreed upon in advance. For more information, see [Trigger Overview](#).

The following information will appear:

Execution Summary ✔ Successful test

Request ID: cf99a03b-1a51- [redacted]

Runtime 1ms Execution memory 20.2421875MB

Returned result 📄

"hello from scf"

Execution log

START RequestId: cf99a03b-1a51- [redacted]

Event RequestId: cf99a03b-1a51- [redacted]

Start Hello World function

Hello World

value1 = test value 1

value2 = test value 2

END RequestId: cf99a03b-1a51-4 [redacted]

Report RequestId: cf99a03b-1a51-4d2a- [redacted] - Duration:1ms Memory:128MB MemUsage:20.2422MB

During this test, SCF will get the data structures of the "Hello World event template" in the `event` parameter of the `main_handler` .

```
{
  "key1": "test value 1",
  "key2": "test value 2"
}
```

On the **Trigger Management** page, view the trigger details.

1. After a trigger is successfully created, an access path will be generated on the **Trigger management** page of the function as shown below:

| API Gateway Trigger | | Alias: Default Traffic |
|-----------------------------|---|------------------------|
| API Name | SCF_API_SERVICE | |
| serviceld | servic[REDACTED] | |
| apild | ap[REDACTED] | |
| Request method | ANY | |
| Publishing Environment | Publish | |
| Authentication Method | No authentication | |
| Enable integration response | Disabled | |
| Enable Base64 encoding | Disabled | |
| Support CORS | No | |
| Backend timed out | 15s | |
| Access path | https://servic[REDACTED].is.com/release/hello_world | |

2. Open the access path in a browser. If "Hello World" is displayed, the function is successfully deployed.

Step 6. View logs and monitoring data

View logs

View monitoring data

Configure alarms

On the details page of a created function, select **Log Query** on the left to view the detailed logs of the function as shown below:

Log Query

Invocation Logs Advanced Retrieval

Version: \$LATEST All Logs Last 15 min 2021-08-12 20:50:29 ~ 2021-08-12 21:05:29 Refresh

2021-08-12 21:04:06 Invoked successfully

Request ID : cf99a03b-1a51-4d2a-889b-f58d087c8f9b

Time: 2021-08-12 21:04:06 Runtime:1ms Execution memory:20.24MB

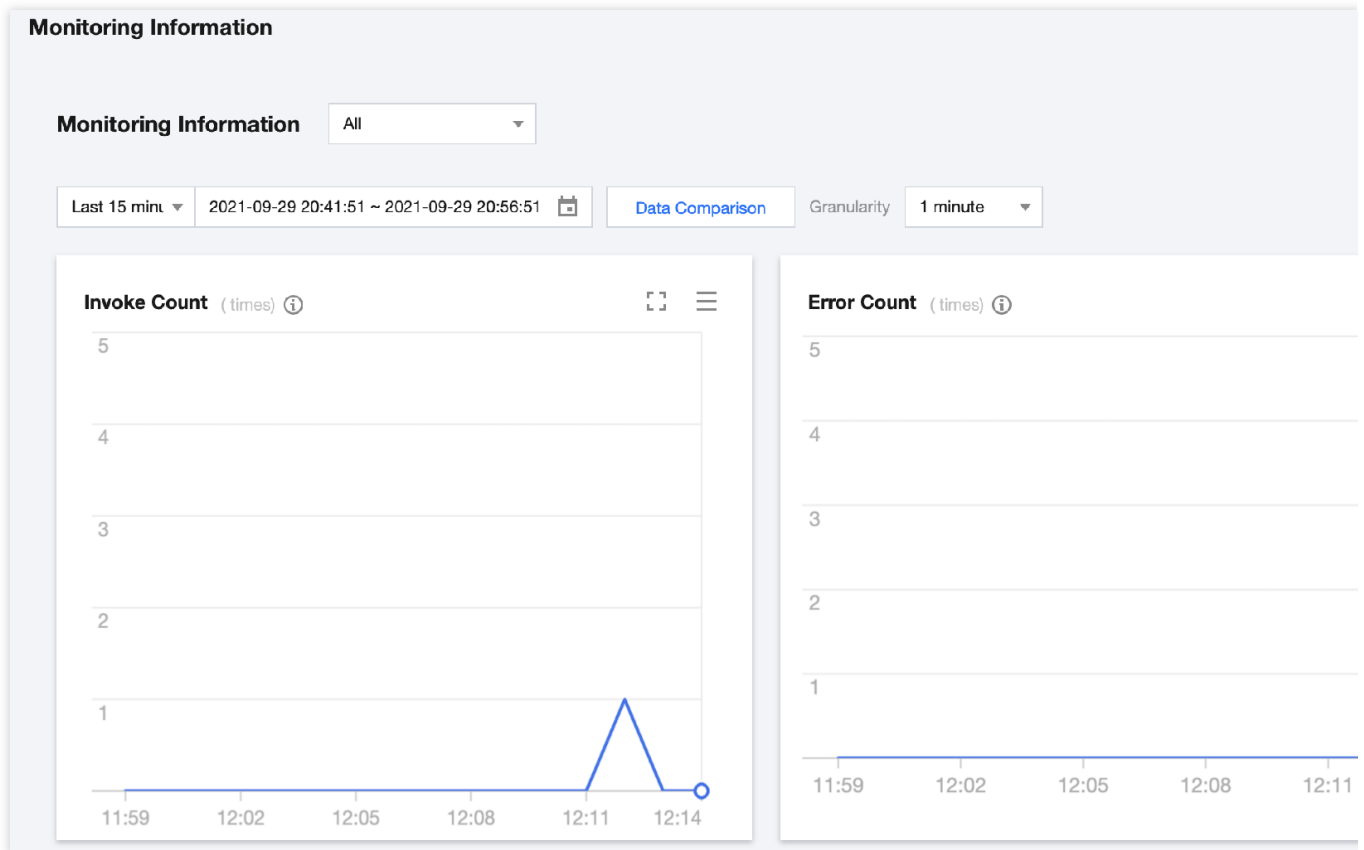
Log:
Start Hello World function
START RequestId:cf99a03b-1a51-4d2a-889b-f58d087c8f9b
Hello World
value1 = test value 1
value2 = test value 2
Response RequestId:cf99a03b-1a51-4d2a-889b-f58d087c8f9b RetMsg:"hello"
END RequestId:cf99a03b-1a51-4d2a-889b-f58d087c8f9b
Report RequestId:cf99a03b-1a51-4d2a-889b-f58d087c8f9b Duration:1ms MemoryUsage:20.24MB

For more information on logs, see [Viewing Execution Logs](#).

On the **Function Management** page, select **Monitoring information** of the created function to view metrics such as function invocations and execution duration as shown below:

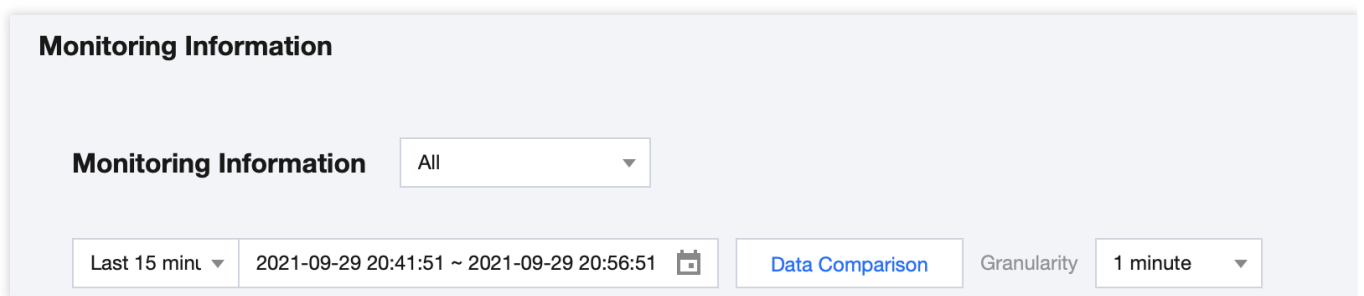
Note:

The minimal granularity of monitoring statistics collection is 1 minute. You need to wait for 1 minute before you can view the current monitoring record.



For more information on monitoring, see [Descriptions of monitoring metrics](#).

On the details page of a created function, click **click here** to configure an alarm policy for the function to monitor its running status as shown below:

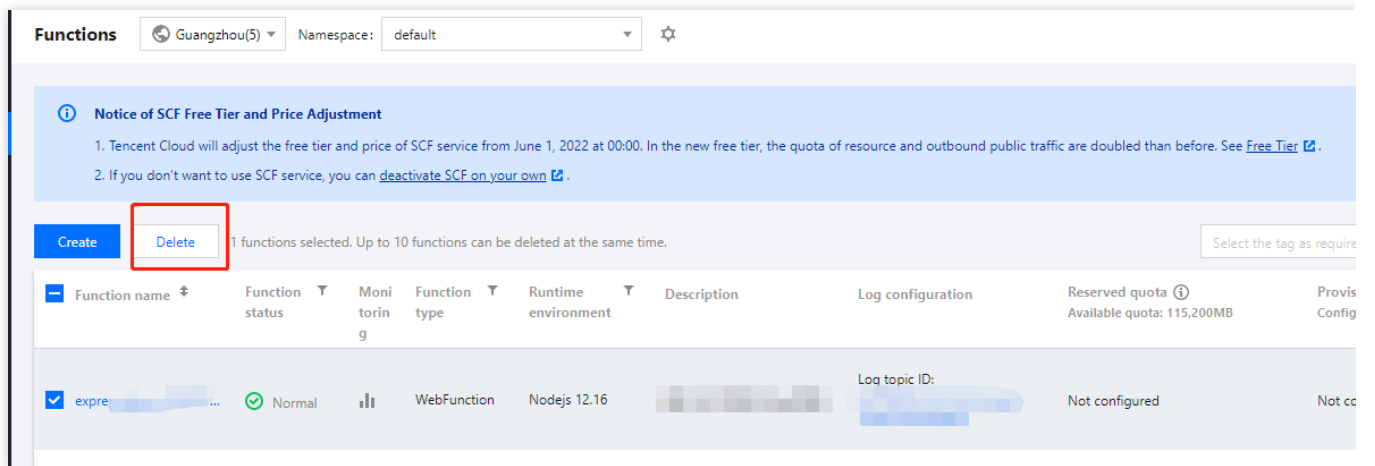


For more information on how to configure an alarm, see [Configuring Alarms](#).

Step 7. Delete the function

After the function starts running, it consumes resources. In order to avoid unnecessary fees, this step shows you how to clear all resources.

1. Select **Functions** on the left sidebar, select the function to be deleted, and click **Delete** as shown below:



The screenshot shows the Tencent Cloud Serverless Cloud Function console. At the top, there are tabs for 'Functions', 'Guangzhou(5)', and 'Namespace: default'. A blue banner contains a notice about SCF Free Tier and Price Adjustment. Below the banner, there are 'Create' and 'Delete' buttons. The 'Delete' button is highlighted with a red box. To the right of the buttons, it says '1 functions selected. Up to 10 functions can be deleted at the same time.' Below this is a table with columns: Function name, Function status, Monitoring, Function type, Runtime environment, Description, Log configuration, Reserved quota, and Provisioning. The table contains one row with a checked checkbox, a function name starting with 'expre...', a status of 'Normal', a monitoring icon, 'WebFunction' type, 'Nodejs 12.16' runtime, a blurred description, a log topic ID, 'Not configured' quota, and 'Not co' provisioning.

2. Confirm the information in the **Delete Function** pop-up window and click **OK**.

FAQs

See [General](#) for solutions.

If the problem persists, [submit a ticket](#) for assistance.

Creating Function with Serverless Cloud Framework

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Scenario

This document describes how to use the SCF component provided by Serverless Cloud Framework to create and deploy an SCF project. For more information, see [Components Overview](#).

Prerequisites

Install Serverless Cloud Framework. For more information, see [Installation](#).

Your account has the Serverless Framework permissions. For more information, see [Permission Management](#).

Directions

Creating a function

Run the following command to create a function in the Node.js language:

```
scf init scf-nodejs --name example
```

Note:

`scf-nodejs` in the command can be replaced with a template for another programming language. SCF supports the following components: `scf-golang`, `scf-nodejs`, `scf-php`, and `scf-python`.

Deploying the function

Run the following command in the `scf-demo` directory to deploy the function:

```
scf deploy
```

A QR code will pop up. Please scan it to authorize and start deployment. After successful deployment, SCF resources will be automatically created.

Note:

If authentication fails, authorize as instructed in [Account and Permission Configuration](#).

View function information

Run the following command to view the information of the deployed SCF resources:

```
scf info
```

Removing function

Run the following command to remove the deployed SCF resources:

```
scf remove
```

Relevant Features

To use Serverless Cloud Framework to manipulate SCF functions, see [Serverless Cloud Framework Overview](#).

Serverless Web IDE is a browser-based integrated development environment. It delivers an on-cloud development experience comparable to native IDEs. For more information on its features for SCF, see [Serverless Web IDE](#).

The SCF SDK integrates function business flow APIs, which simplifies the invocation of functions. For more information on its feature for functions, see [SDK for Python](#) and [Node.js SDK](#).