Alibaba Cloud
Cloud Monitor

SDK Reference

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Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information 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.
	This warning information 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 restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus , page names, and other UI elements.	Click OK.
`Courier font`	It is used for commands.	Run the `cd / d C :/ windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig` *[-all|-t]*

Style	Description	Example
{} or {a|b}	It indicates that it is a required value, and only one item can be selected.	`swich {stand | slave}`

Contents

1 Java SDK

This topic is a reference for installing and using the Java SDK.

Install SDK

When performing installation through maven, the following dependencies must be added.

```
< dependenci  es >
     < dependency >
       < groupId > com . aliyun </ groupId >
       < artifactId > aliyun - java - sdk - core </ artifactId >
       < version > 5 . 1 . 6 </ version >
    </ dependency >
< dependency >
  < groupId > com . aliyun </ groupId >
  < artifactId > aliyun - java - sdk - cs </ artifactId >
  < version > 0 . 1 . 2 </ version >
</ dependency >
</ dependenci  es >
```

Download SDK

Download address

Test code

- Query monitoring data.
  - Request example

    Make sure that you replace the "accessKey" and "accessSecret" given in the following example with your actual Access Key.

```
package   com . aliyuncs . cms . test ;
import   com . alibaba . fastjson . JSONObject ;
import   com . aliyuncs . DefaultAcs  Client ;
import   com . aliyuncs . IAcsClient ;
import   com . aliyuncs . sts . model . v20150401 .  Querymetri
clistreque  st ;
import   com . aliyuncs . sts . model . v20150401 .  QueryMetri
cListRespo  nse ;
import   com . aliyuncs . exceptions . ClientExce  ption ;
import   com . aliyuncs . exceptions . ServerExce  ption ;
import   com . aliyuncs . http . MethodType ;
import   com . aliyuncs . profile . DefaultPro  file ;
import   com . aliyuncs . profile . IClientPro  file ;
public   class   QueryMetri  cListDemo  {
    public   static   void   main ( String []  args ) {
        QueryMetri  cRequest   request  =  new   QueryMetri
cRequest ();
        request . setProject (" acs_ecs_da  shboard ");
        request . setMetric (" cpu_idle ");
        request . setPeriod (" 60 ");
```

```
        request . setStartTi  me (" 2016 - 05 - 15   08 : 00 : 00
");
        request . setEndTime (" 2015 - 05 - 15   09 : 00 : 00 ");
        JSONObject   dim  =  new   JSONObject ();
        dim . put (" instanceId ", "< your_insta  nceId >");
        request . setDimensi  ons ( dim . toJSONStri  ng ());
        request . AcceptForm  at  =  FormatType . JSON ;
        IClientPro  file   profile  =  DefaultPro  file .
getProfile (" cn - hangzhou ",
                "< your_acces  s_key_id >", "< your_acces
s_key_secr  et >");
        IAcsClient   client  =  new   DefaultAcs  Client (
profile );
        try  {
            GetStatusR  esponse   response  =  client .
getAcsResp  onse ( request );
            System . out . println ( response . getCode ());
            System . out . println ( response . getMessage ());
            System . out . println ( response . getRequest  Id
());
            System . out . println ( response . getData ());
        }  catch  ( ServerExce  ption   e ) {
e . printStack  Trace ();
            e . printStack  Trace ();
        }  catch  ( ClientExce  ption   e ) {
            e . printStack  Trace ();
        }
    }
}
```

- **Return example**

```
Code : 200
Message : null
RequestId : 727B48BD - 55E3 - 4E5D - BEF4 - 1D092055F7  A4
Datapoints :[
    {
        " Maximum ": 100 ,
        " Minimum ": 25 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 94 . 62 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489472460  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 25 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 95 . 11 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489472520  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 25 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 95 . 16 ,
         Userid :  1270676679  54 **** ",
        " timestamp ": 1489472580  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 25 ,
```

```
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 94 . 69 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489472640  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 20 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 95 . 82 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489472700  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 25 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 94 . 77 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489472760  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 33 . 33 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 95 . 18 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489472820  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 25 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 95 . 11 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489472880  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 20 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 94 . 5 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489472940  000
    },
    {
        " Maximum ": 100 ,
        " Minimum ": 20 ,
        " instanceId ":" i - bp18abl200  xk9599 ****",
        " Average ": 94 . 99 ,
        " userId ":" 1270676679  54 ****",
        " timestamp ": 1489473000  000
    }
]
}
```

- **Create an alarm rule.**
  - **Request example**

```
package   com . aliyuncs . cms . test ;
import   com . alibaba . fastjson . JSONArray ;
import   com . alibaba . fastjson . JSONObject ;
```

```
import com . aliyuncs . DefaultAcs Client ;
import com . aliyuncs . IAcsClient ;
import com . aliyuncs . sts . model . v20150401 . CreateAlar
mRequest ;
import com . aliyuncs . sts . model . v20150401 . CreateAlar
mResponse ;
import com . aliyuncs . exceptions . ClientExce ption ;
import com . aliyuncs . exceptions . ServerExce ption ;
import com . aliyuncs . http . MethodType ;
import com . aliyuncs . profile . DefaultPro file ;
import com . aliyuncs . profile . IClientPro file ;
public class CreateAlar mDemo {
    public static void main ( String [] args ) {
        CreateTabl eRequest request = new CreateTabl
eRequest ();
        request . setName (" create_ala rm_test ");
        request . setNamespa ce (" acs_ecs_da shboard ");
        request . setMetricN ame (" vm . MemoryUtil ization ");
        JSONArray dimensions = new JSONArray ();
        JSONObject dim = new JSONObject ();
        dim . put (" userId ", "< your_userI d >");
        dim . put (" instanceId ", "< your_insta nceId >");
        dimensions . add ( dim );
        request . setDimensi ons ( dimensions . toJSONStri ng
());
        request . setPeriod (" 60 ");
        request . setStatist ics (" Average ");
        request . setCompari sonOperato r (">=");
        request . setThresho ld (" 35 ");
        request . setEvaluat ionCount ( 2 );
        JSONArray contactGro ups = new JSONArray ();
        contactGro ups . add ("< your_group 1 >");
        contactGro ups . add ("< your_group 2 >");
        request . setContact Groups ( contactGro ups .
toJSONStri ng ());
        request . setStartTi me ( 6 );
        request . setEndTime ( 20 );
        request . setNotifyT ype ( 1 );
        request . AcceptForm at = FormatType . JSON ;
        IClientPro file profile = DefaultPro file .
getProfile (" cn - hangzhou ",
                "< your_acces s_key_id >", "< your_acces
s_key_secr et >");
        IAcsClient client = new DefaultAcs Client (
profile );
        try {
            CreateUser Response response = client .
GetAcsResp onse ( request );
            System . out . println ( response . getCode ());
            System . out . println ( response . getMessage ());
            System . out . println ( response . getRequest Id
());
            System . out . println ( response . getData ());
        } catch ( ServerExce ption e ) {
e . printStack Trace ();
            e . printStack Trace ();
        } catch ( ClientExce ption e ) {
            e . printStack Trace ();
        }
    }
```

```
}
```

- **Return example**

```
Code : 200
Message : null
RequestId : B8E6E26A - 9435 - 4D52 - 8796 - 68793935CA  74
Data : 81b412bf - fbbb - 4a40 - 8d74 - b68ec849a0  91
```

2 Python SDK

This topic is a reference for installing and using the Python SDK.

Install Python SDK

- You have installed Python v2.7.
- You have installed pip or an alternative package management system. For more information on pip, see *How to install pip*.
- You have installed the Python CLI. For more information, see *How to install CLI*.

Use Python SDK

```
pip   install   aliyun - python - sdk - core
pip   install   aliyun - python - sdk - cms
```

Latest version of Python SDK

Code example

```
from   aliyunsdkc  ore   import   client
from   aliyunsdkc  ms . request . v20190101   import   QueryMetri
cListReque  st
import   time
clt  =  client . AcsClient (' your_acces  s_key ',' your_acces
s_secret ',' your_regio  n_id ')
request  =  QueryMetri  cListReque  st . QueryMetri  cListReque  st
()
request . set_accept  _format (' json ')
request . set_Projec  t (' acs_ecs_da  shboard ')
request . set_Metric (' CPUUtiliza  tion ')
start_time  = " 2016 - 10 - 25   10 : 00 : 00 "
timestamp_  start  =  int ( time . mktime ( time . strptime (
start_time , "% Y -% m -% d  % H :% M :% S "))) *  1000
request . set_StartT  ime ( timestamp_  start )
request . set_Dimens  ions ("{' instanceId ':' i - 94g5h ****'}")
request . set_Period (' 60 ')
result  =  clt . do_action_  with_excep  tion ( request )
print   result
```

3 Node.js SDK

This topic is a reference for installing and using the Node.js SDK.

Instal Node.js SDK.

`Install Node.js and npm`

Code example

```
 VaR   metrics  =  require  (" aliyun - metrics  ")

 VaR   client  =  new   metrics  ({
        accesskeyI  d : " your_acces  skey_id ",
        accesskeyS  ecret : " your_acces  skey_secre  t "
})

 client . queryData ({
        project :" acs_rds ",
        metric :" CpuUsage ",
        period : 300 ,
        startTime :" 2016 - 03 - 08T07 : 20 : 00Z ",
        endTime :" 2016 - 03 - 08T09 : 20 : 00Z ",
        dimensions :"{ instanceId :' your_insta  nceId '}"
},  function ( error ,  data ){
        if  ( error )
                console . log ( error )
        else   if  (!  data )
                console . log (" data   is   null ")
        else
                console . log ( data )
});
```

4 PHP SDK

This topic is a reference for installing and using the PHP SDK.

Download SDK

Download addresses:

- https://github.com/aliyun/aliyun-openapi-php-sdk/tree/master/aliyun-php-sdk-cms/
- https://github.com/aliyun/aliyun-openapi-php-sdk/tree/master/aliyun-php-sdk-core

Test code

```
<?  php
 date_defau  lt_timezon  e_set (" Asia / Shanghai ");
 include_on  ce  '< your_path >/ aliyun - openapi - php - sdk / aliyun
 - php - sdk - core / Config . php ';
$ responses  =  array ();
 use   Cms \ Request \ V20170301 \ QueryMetri  cListReque  st ;
$ iClientPro  file0  =  DefaultPro  file :: getProfile (
    "< your_regio  nId >",
    "< your_acces  skey_id >",
    "< your - access - key - secret >")
);
$ client  =  new   DefaultAcs  Client ($ iClientPro  file );
 function   do_request  0 ($ client )
{
     global  $ responses ;
    $ request  =  new   QueryMetri  cListReque  st ();
    $ request -> setProject (" acs_ecs_da  shboard ");
    $ request -> setDimensi  ons ("{' instanceId ': '< instanceId
 _as_exampl  e >'}");
     request . setStartTi  me (" 2016 - 05 - 15   08 : 00 : 00 ");
    $ request -> setMetric (" cpu_idle ");
     request . setEndTime (" 2015 - 05 - 15   09 : 00 : 00 ");
     request . setPeriod (" 60 ");
    //  Initiate   a   request   and   obtain   the   response
    $ client -> __urlTestF  lag__  =  false ;
     try  {
        $ response  = $ client -> doAction ($ request );
        $ body  =  json_decod  e ($ response -> getBody ());
         print  " REQUEST  ". $ response -> getStatus () . "  body :
 " . $ body ->{' Code '} . "\ n ";
         print_r ($ body ->{' Datapoints '});
    }  catch ( ClientExce  ption  $ e ) {
         print  " REQUEST   N . A .  Error : " . $ e -> getErrorCo  de
 () . "  Message : " . $ e -> getMessage () . "\ n ";
    }
}
 array_push ($ responses ,  do_request  0 ($ client0 ));
? >
```