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HOW TO SET UP A PERSONAL ALBUM USING OSS ON ALIBABA CLOUD

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How to Set Up a Personal Album Using OSS

1. Introduction

In this lab, I will demonstrate how to use Alibaba Cloud OSS to set up a personal album application. I will also explain how to customize images using Alibaba Cloud OSS's powerful image processing functions, such as scaling and watermarking.

To accomplish this, I will deploy the Ghost blog system on an ECS instance to create my personal album.

Reminder: When I complete this lab, I must remember to sign out of my temporary Alibaba Cloud account.

1.1 Key Points

This lab covers the following key points:

- Uploading original images to the OSS console and viewing them
- Learning how to manage OSS images online
- Deploying the Ghost blog system on an ECS instance
- Setting up a local album application using images stored in OSS

1.2 Procedure

- Upload original images to OSS
- Learn to manage OSS images online
- Set up a Ghost application on an ECS instance
- Set up a personal album using Ghost

1.3 Cloud Resources

- ECS instance: Ubuntu 16.04.2 LTS
- Alibaba Cloud OSS console

1.4 Prerequisites

The system has automatically assigned a username and password for logging into the Alibaba Cloud console, created an ECS instance with an Ubuntu environment, and created an OSS bucket.

1.5 Hint

If I encounter differences between the lab environment and the captured images in the lab manual, these might be due to cloud portal version differences, which should not significantly impact my lab experience. I can provide feedback by clicking "**Comment**," and the document will be updated as needed.

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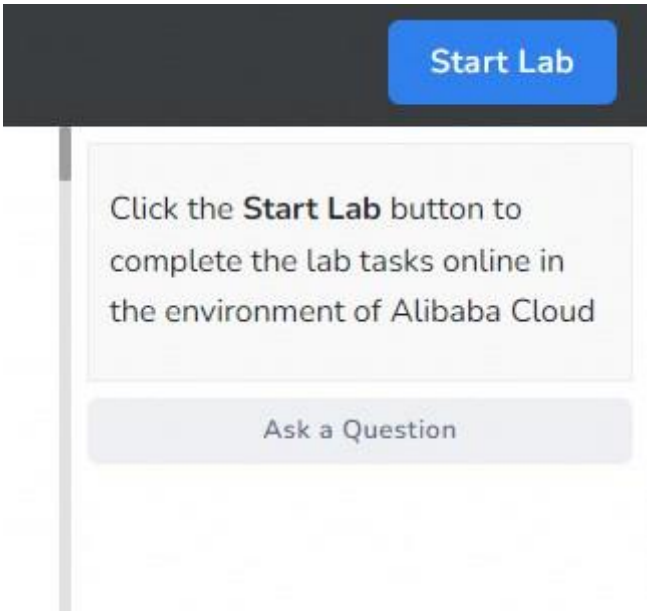
2. Getting Started

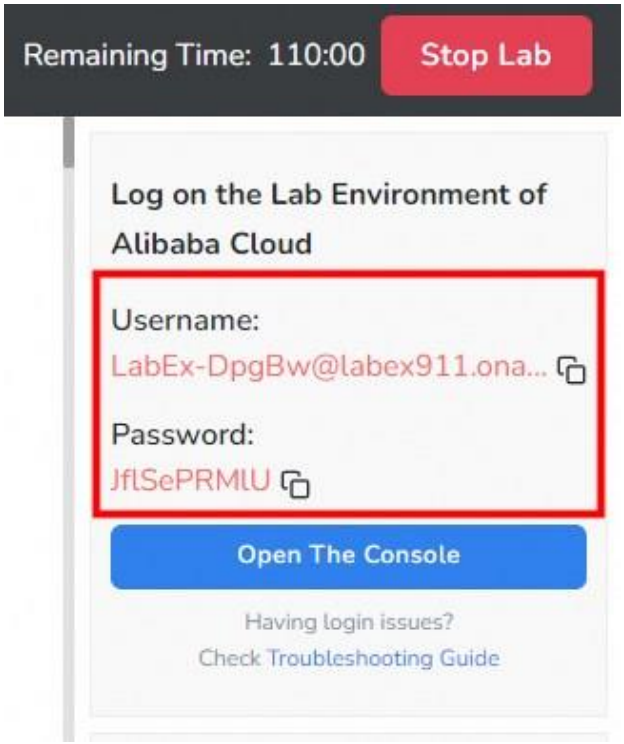
2.1 Start the Lab Environment

If I have just completed a lab session, I should log out of my Alibaba Cloud account before starting a new lab to avoid issues with a new session in the same browser.

To begin, I will click "**Start Lab**" in the upper-right corner.

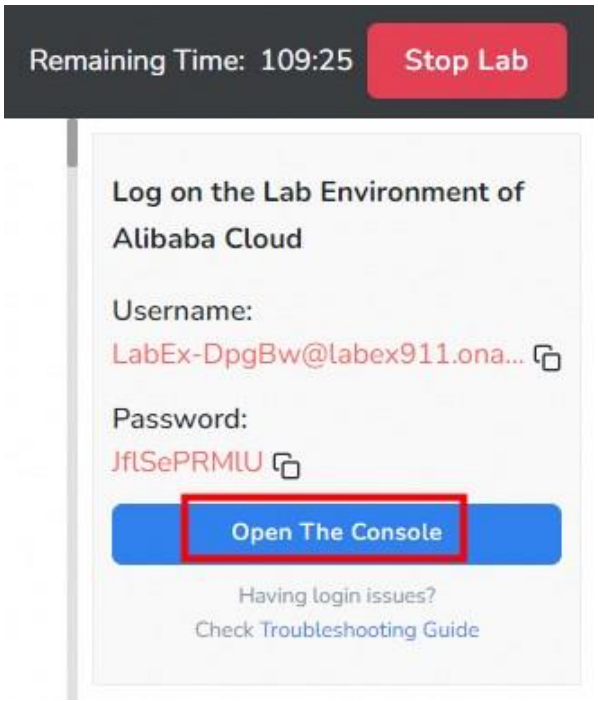


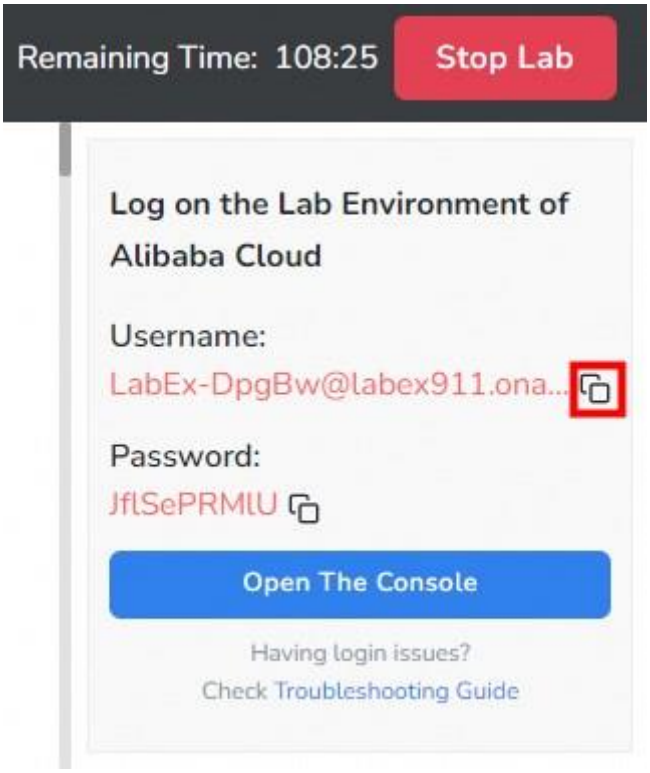
Once the environment is ready, the system will auto-deploy essential resources, such as ECS and RDS instances, Server Load Balancers, OSS buckets, etc. I will receive login credentials for the Alibaba Cloud Web console.

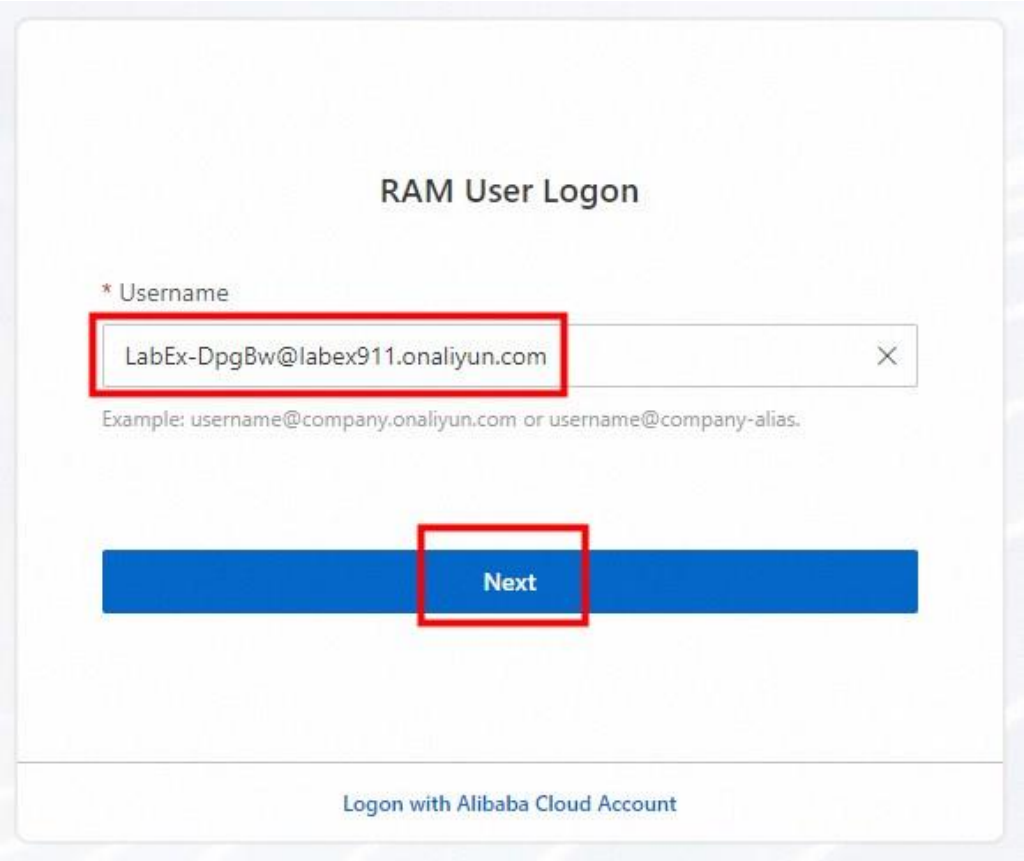


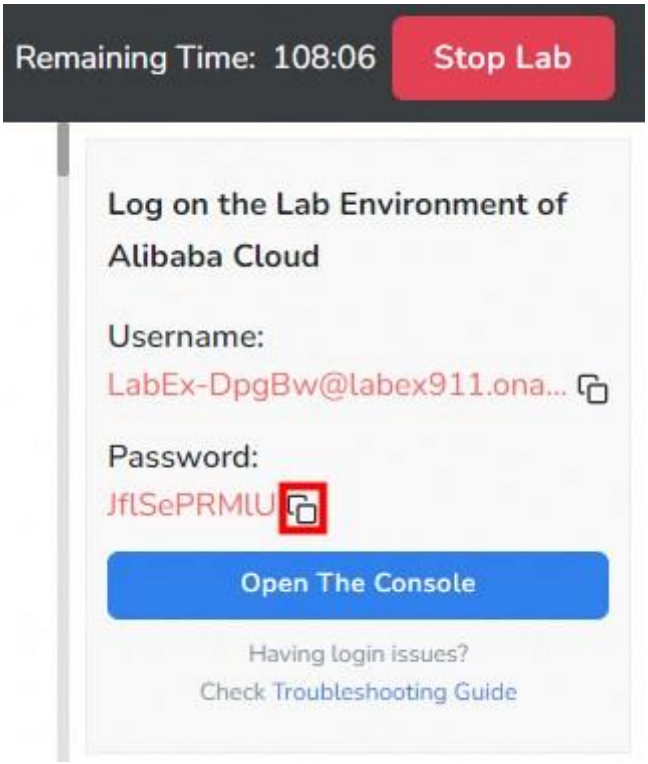
A countdown timer starts when the environment is ready, giving me two hours to complete the lab. I need to monitor the time and plan accordingly.

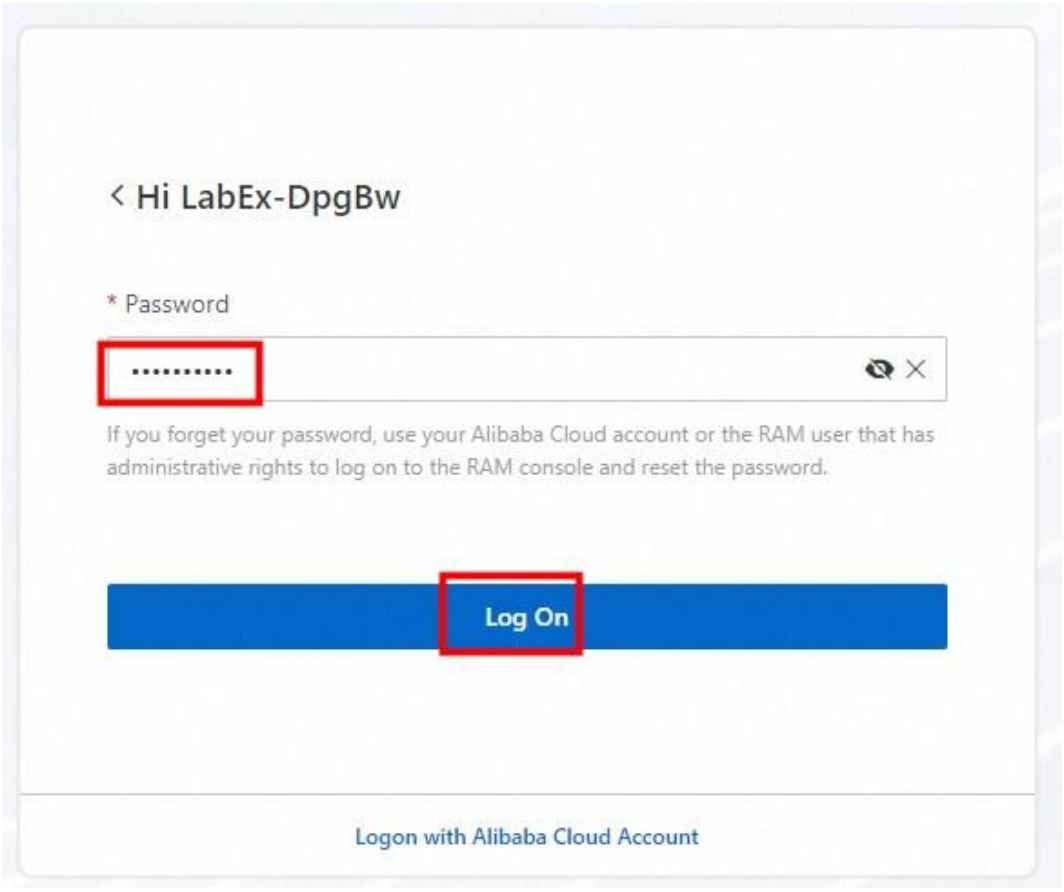
Next, I click "**Open the Console**" to access the Alibaba Cloud RAM login page. Using the provided Username and Password, I log in and access relevant resources.



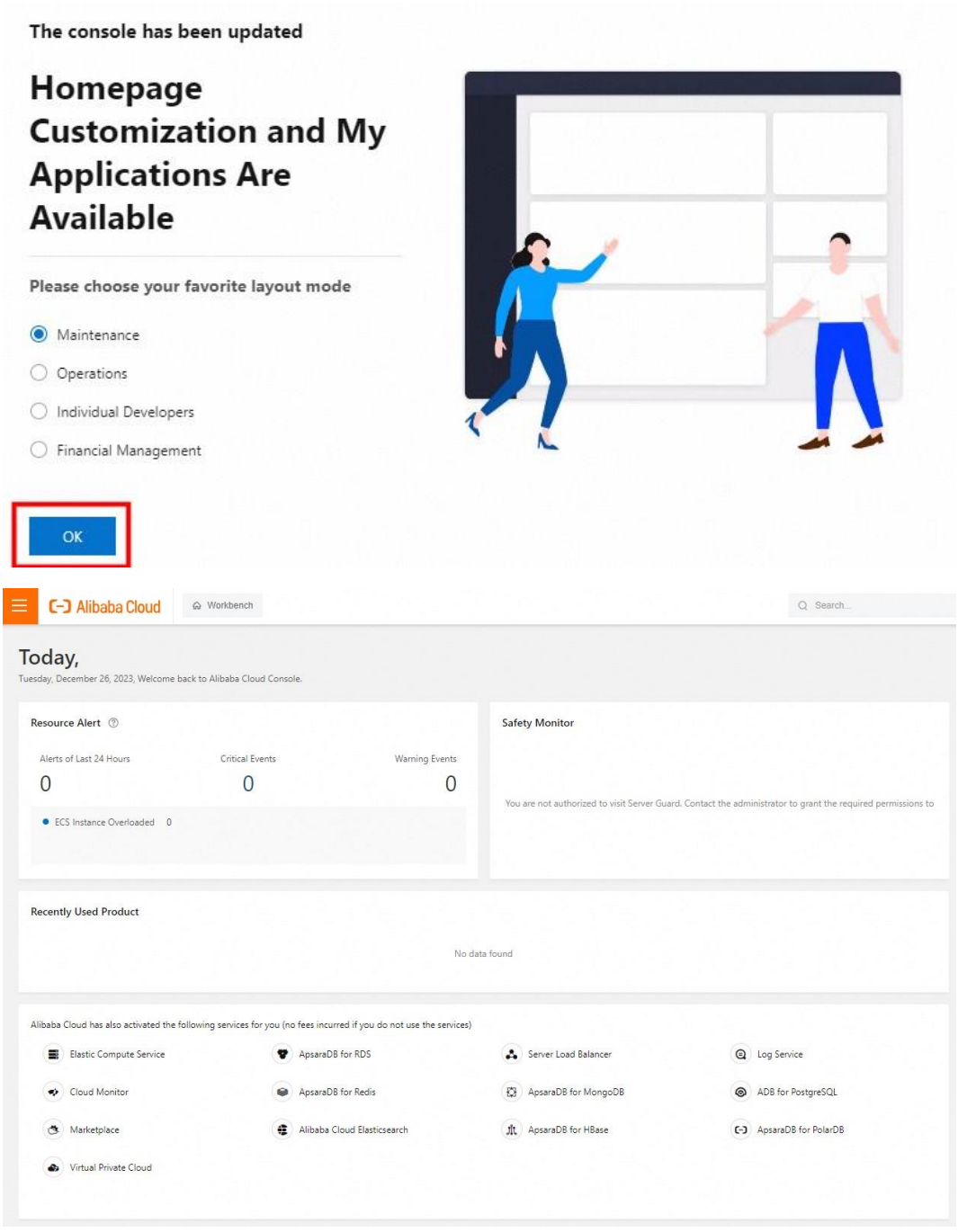

Remaining Time: 108:25
Stop Lab
Log on the Lab Environment of Alibaba Cloud
Username:
LabEx-DpgBw@labex911.ona...
Password:
JflSePRMlU
Open The Console
Having login issues?
Check Troubleshooting Guide


RAM User Logon
* Username
LabEx-DpgBw@labex911.onaliyun.com
Example: username@company.onaliyun.com or username@company-alias.
Next
Logon with Alibaba Cloud Account


Remaining Time: 108:06
Stop Lab
Log on the Lab Environment of Alibaba Cloud
Username:
LabEx-DpgBw@labex911.ona...
Password:
JflSePRMlU
Open The Console
Having login issues?
Check Troubleshooting Guide

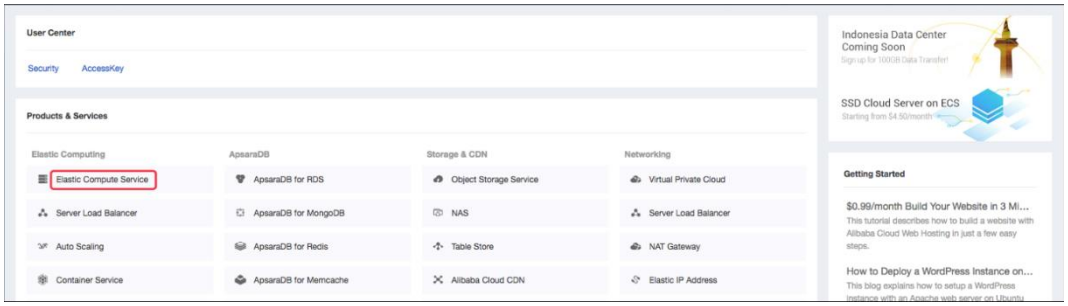

Hi LabEx-DpgBw
* Password
If you forget your password, use your Alibaba Cloud account or the RAM user that has administrative rights to log on to the RAM console and reset the password.
Log On
Logon with Alibaba Cloud Account

After I successfully logging in, click **OK** to view the main console page.

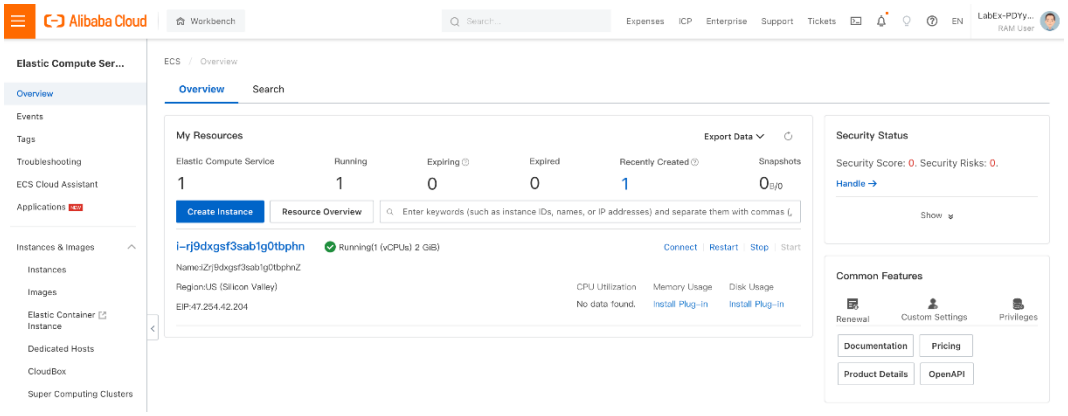


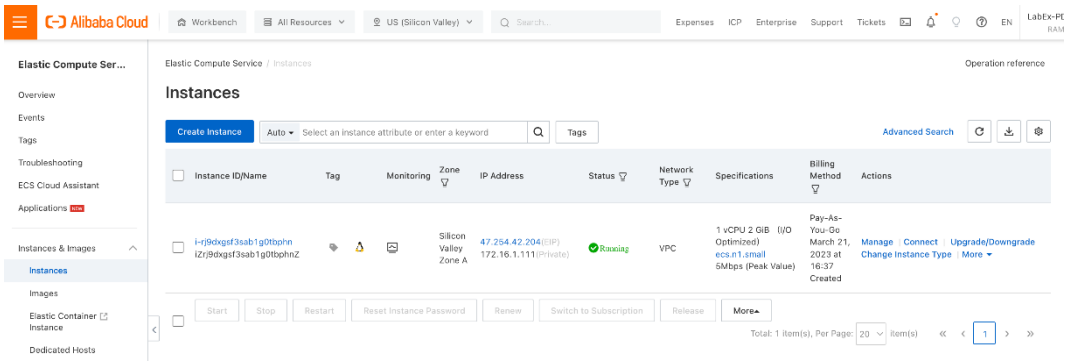
2.2 View ECS instances

I Click **Elastic Computer Service**, as shown in the following picture



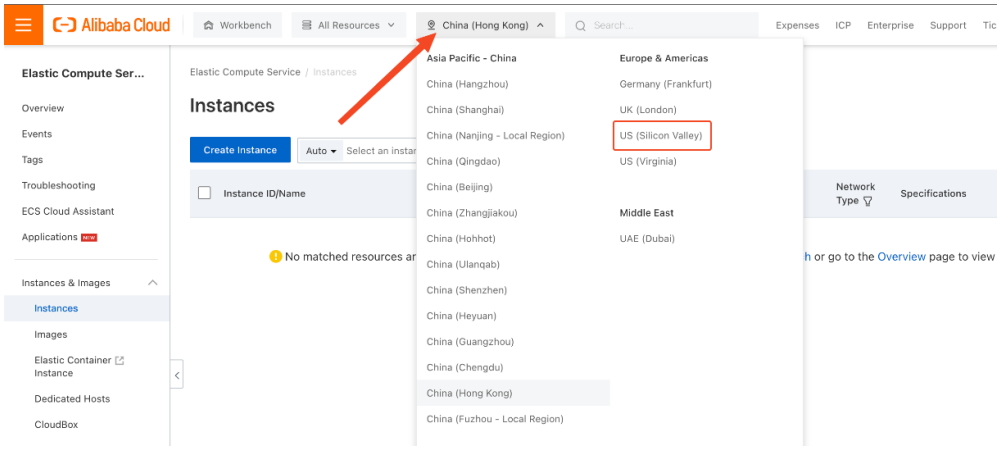
In the ECS console, I can see one running instance in the US (Silicon Valley) region. I click on it to view more details, including configuration, Private IP, and Elastic IP Address (EIP) for remote access.



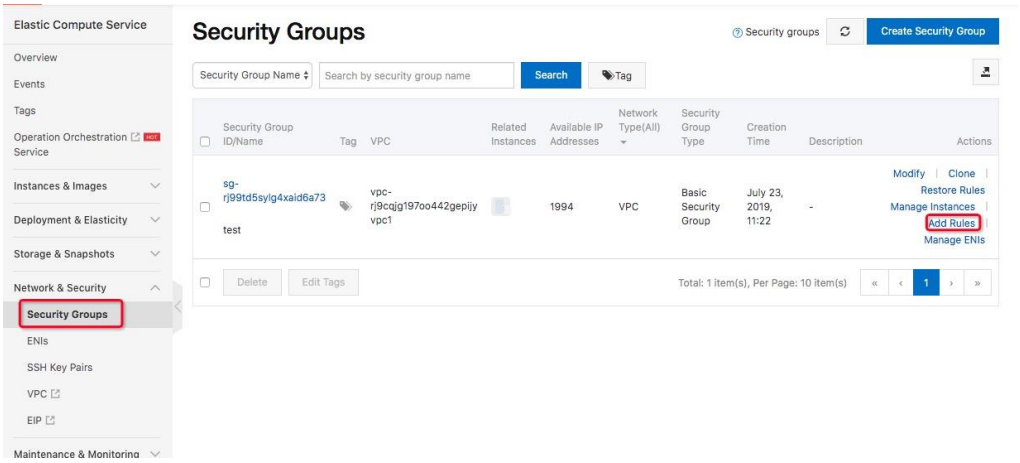


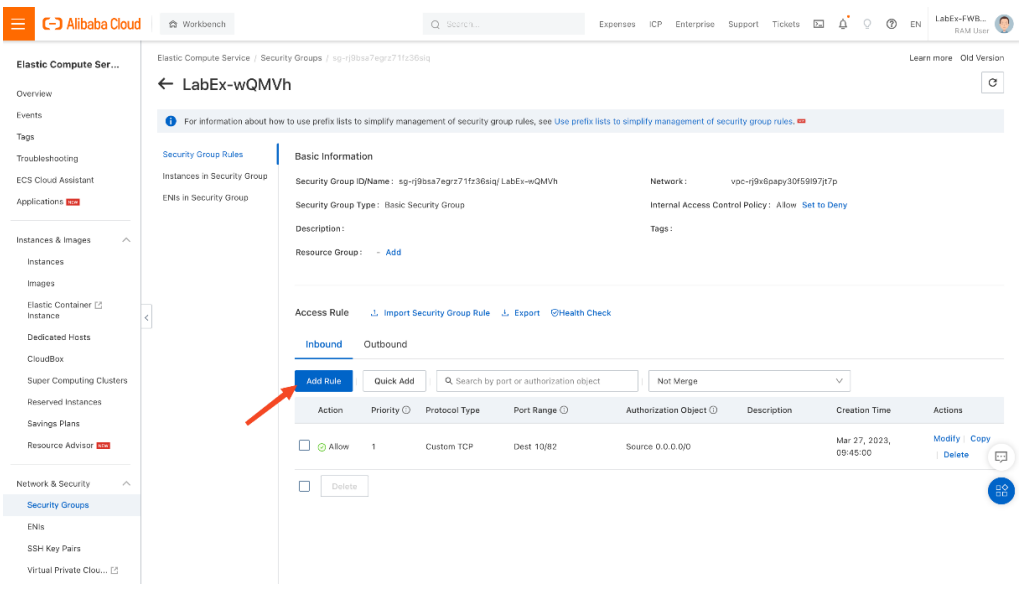
Because of I don't see instances in the Indonesian region, I switch to the US (Silicon Valley) region.

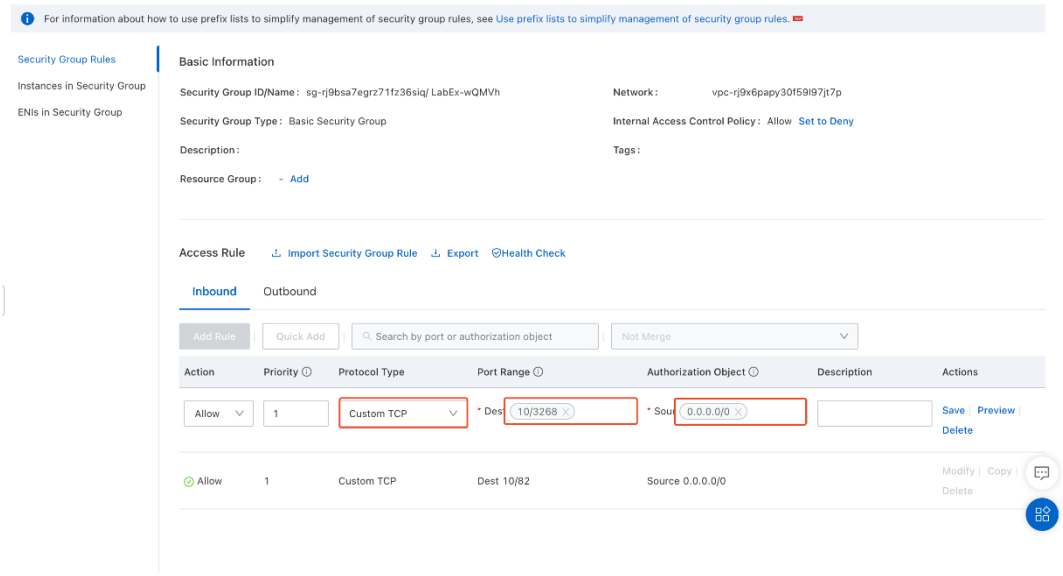
The same applies when using other services.



Following the instructions in the image, I will first modify the security group rules. I click "**Add Security Group Rule**" and add a rule to open port 3268, which I will use later, then click "**Save**."

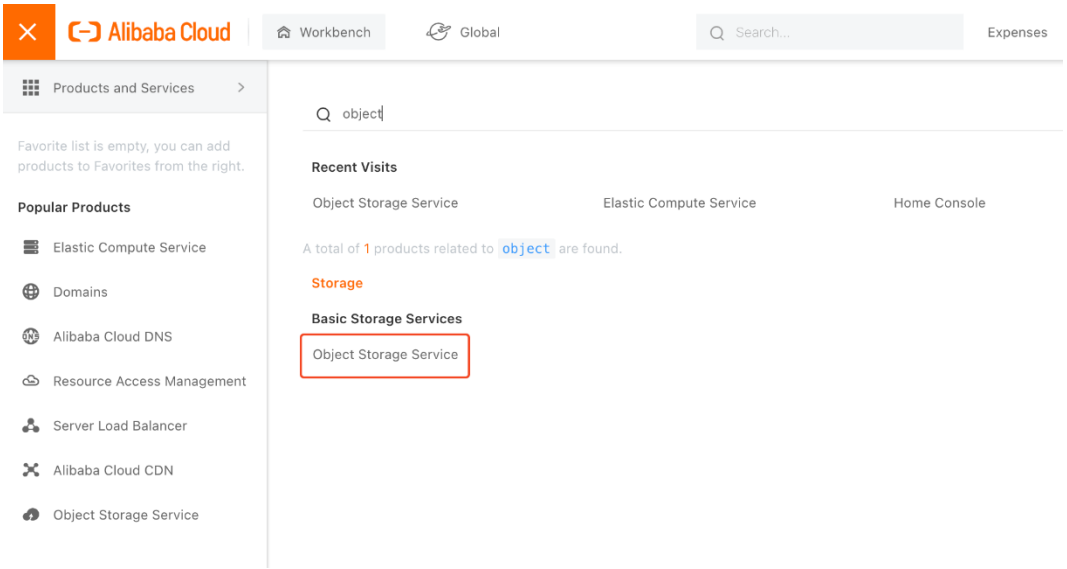




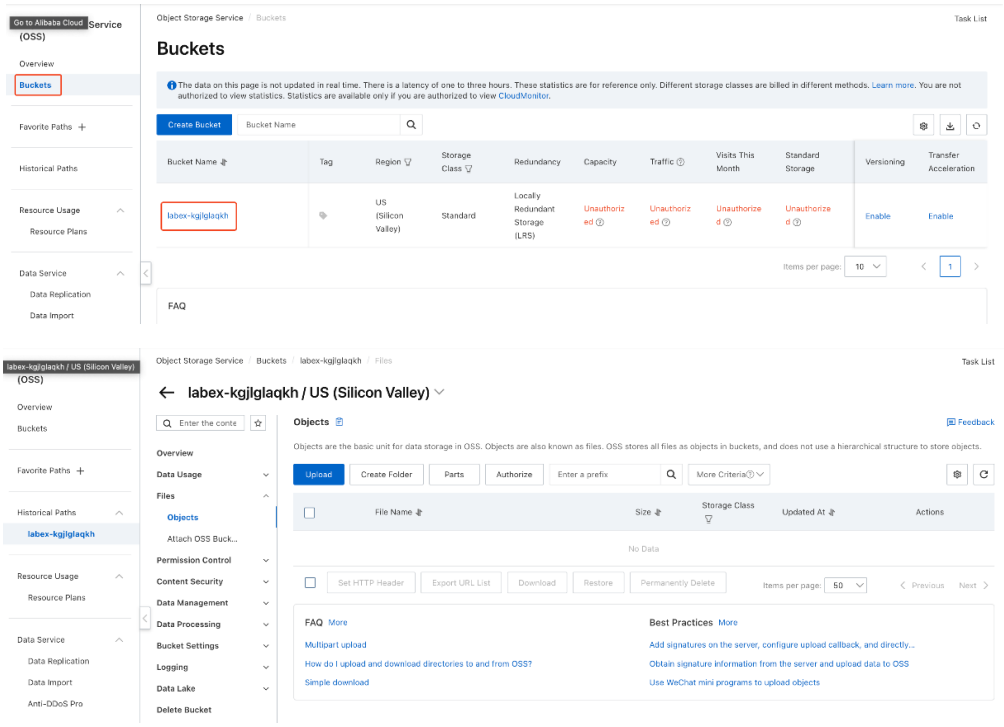


2.3 View the OSS bucket

Since I am using OSS in this lab, I need to create a bucket to store data. The system has already created a default bucket, so I can view and use it directly.

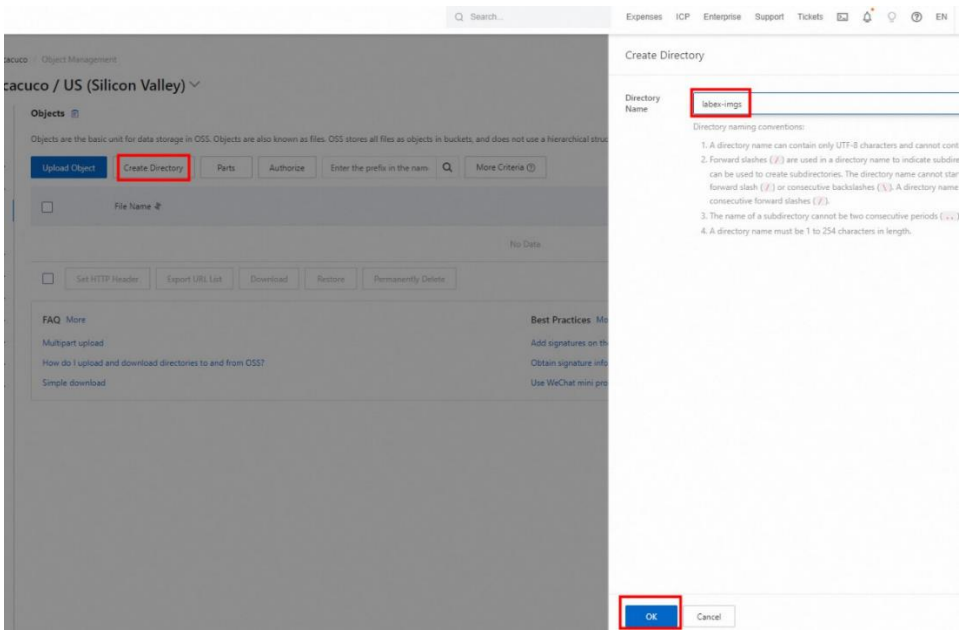


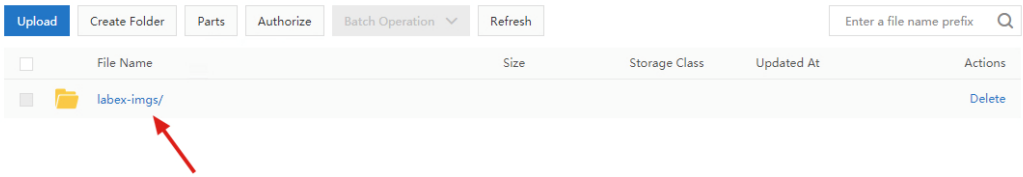
I click the bucket name to view more details.



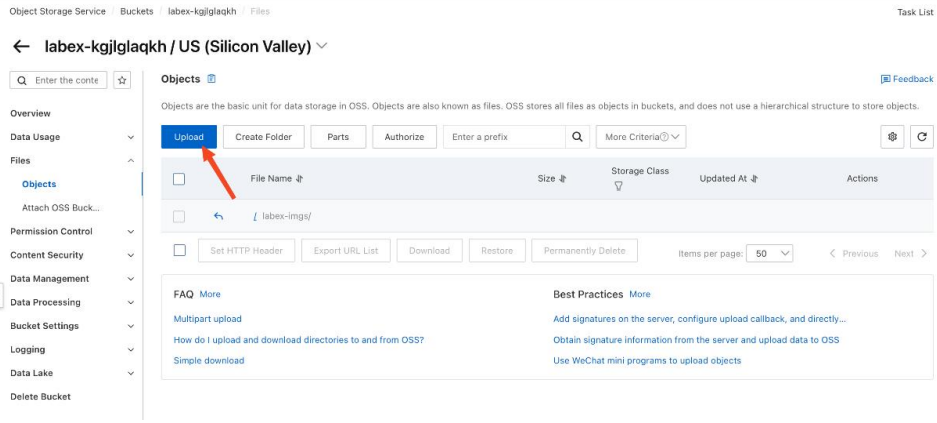
2.4 Use the OSS console to manage image resources

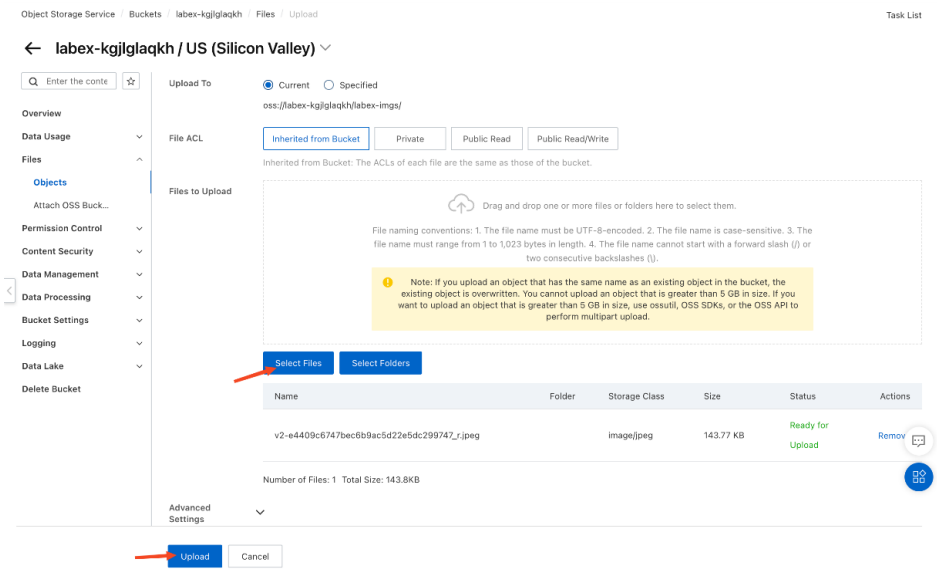
To make it easier to manage uploaded files, I click "**Create Directory**" to set up a directory.

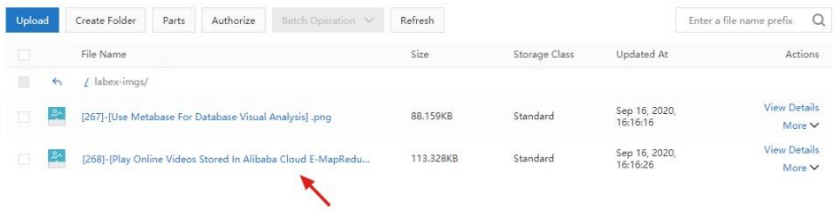


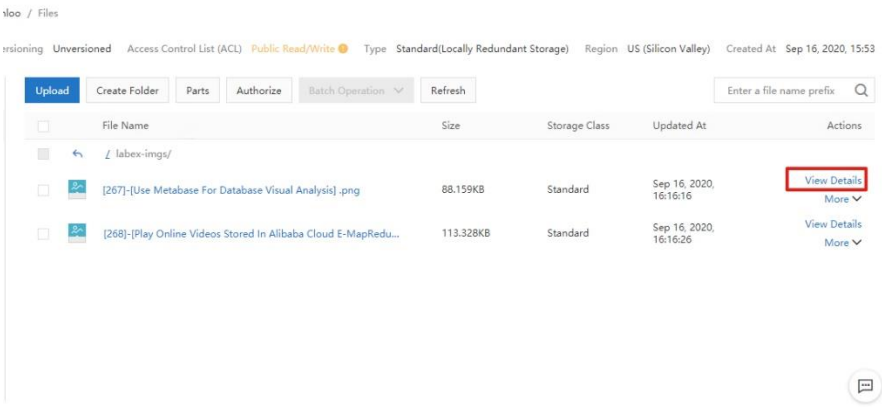


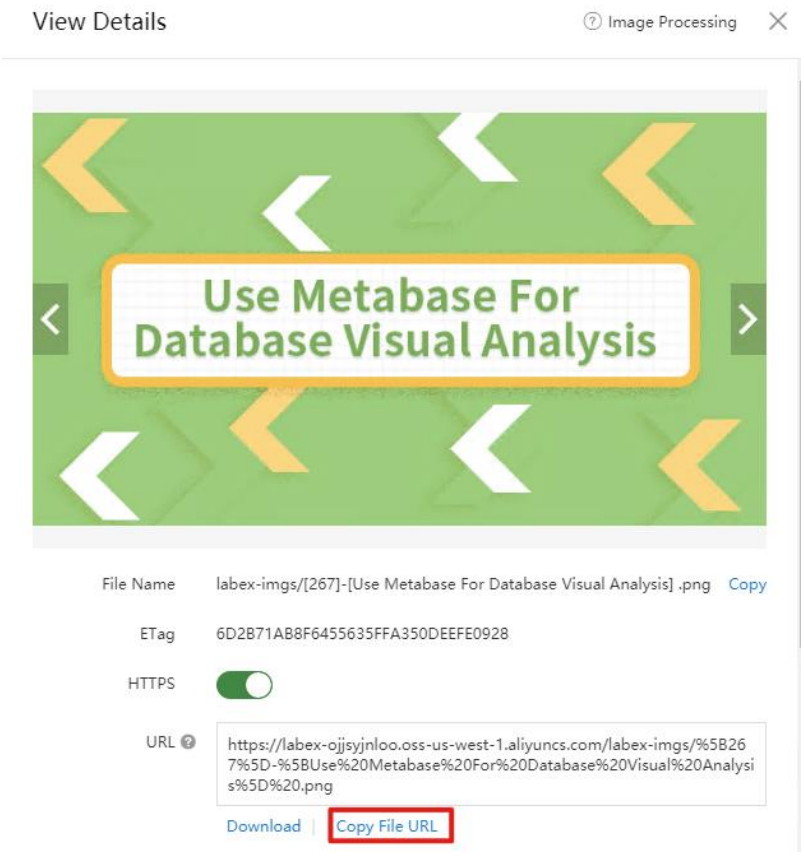
I enter the labex-imgs directory and click the "**Upload**" button to upload files. I can either drag or select files to upload. After uploading, I can see a list of images, although no images are provided, so I will need to upload my own test image.

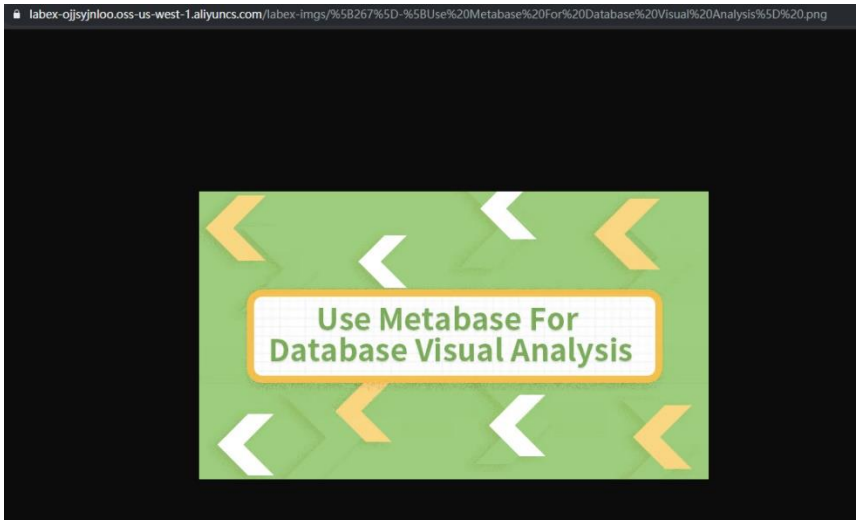





Upload
Create Folder
Parts
Authorize
Batch Operation
Refresh
Enter a file name prefix
File Name
Size
Storage Class
Updated At
Actions
labex-imgs/
[267]-[Use Metabase For Database Visual Analysis] .png
88.159KB
Standard
Sep 16, 2020, 16:16:16
View Details
More
[268]-[Play Online Videos Stored In Alibaba Cloud E-MapRedu...
113.328KB
Standard
Sep 16, 2020, 16:16:26
View Details
More


Files
Unversioned
Access Control List (ACL)
Public Read/Write
Type
Standard(Locally Redundant Storage)
Region
US (Silicon Valley)
Created At
Sep 16, 2020, 15:53
Upload
Create Folder
Parts
Authorize
Batch Operation
Refresh
Enter a file name prefix
File Name
Size
Storage Class
Updated At
Actions
labex-imgs/
[267]-[Use Metabase For Database Visual Analysis] .png
88.159KB
Standard
Sep 16, 2020, 16:16:16
View Details
More
[268]-[Play Online Videos Stored In Alibaba Cloud E-MapRedu...
113.328KB
Standard
Sep 16, 2020, 16:16:26
View Details
More


View Details
Image Processing
Use Metabase For Database Visual Analysis
File Name
labex-imgs/[267]-[Use Metabase For Database Visual Analysis] .png
Copy
ETag
6D2B71AB8F6455635FFA350DEEFE0928
HTTPS
URL
https://labex-ojjsyjnloo.oss-us-west-1.aliyuncs.com/labex-imgs/%5B267%5D-%5BUse%20Metabase%20For%20Database%20Visual%20Analysis%5D%20.png
Download
Copy File URL

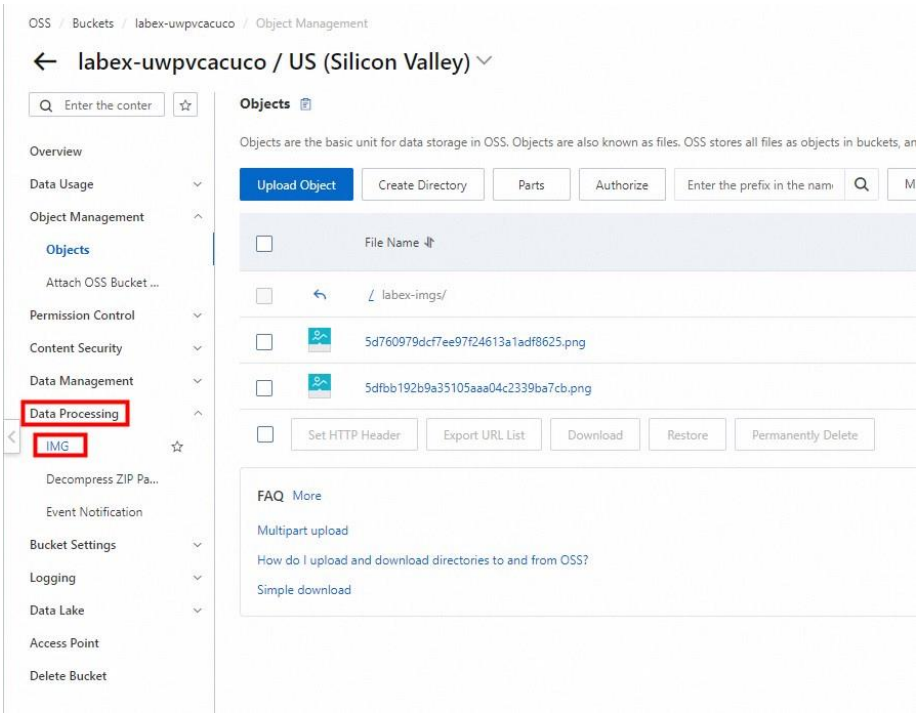


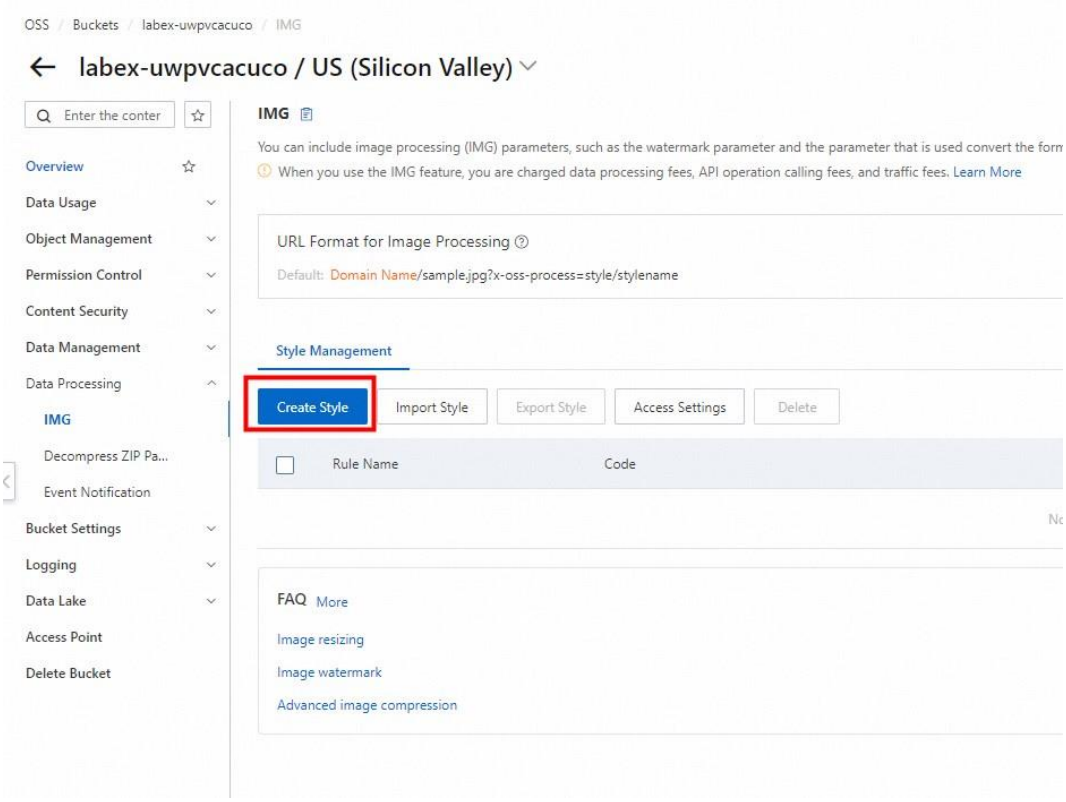
By following these instructions, I can use the Alibaba Cloud OSS service to store my picture resources. The OSS service also allows for storing other resource types.

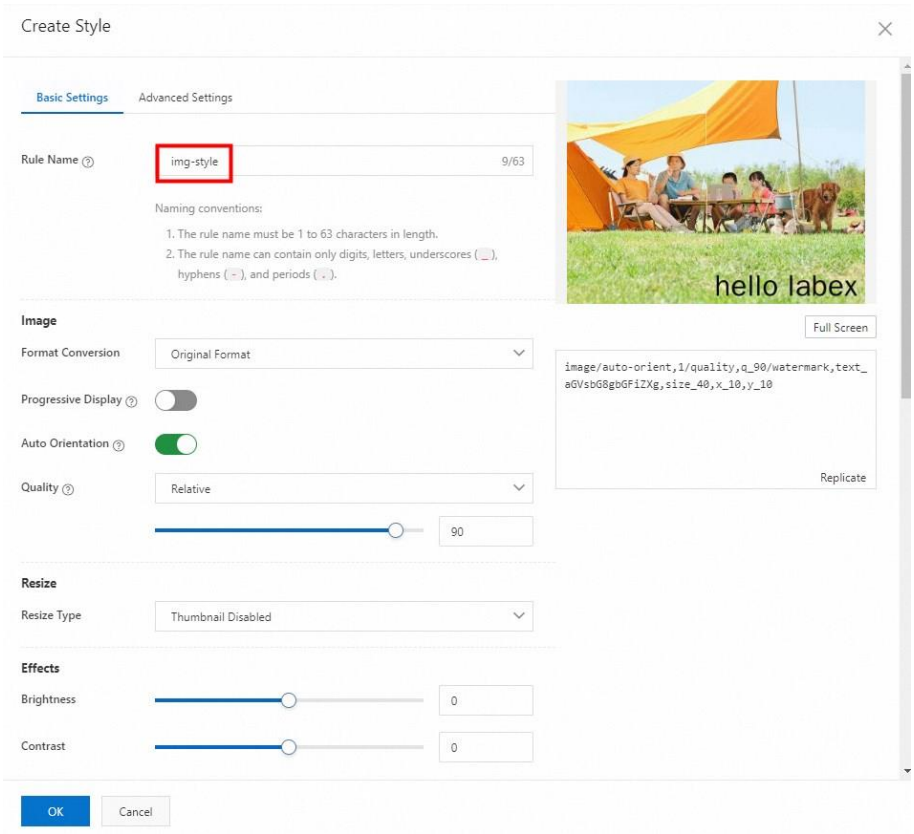
2.5 Add watermark

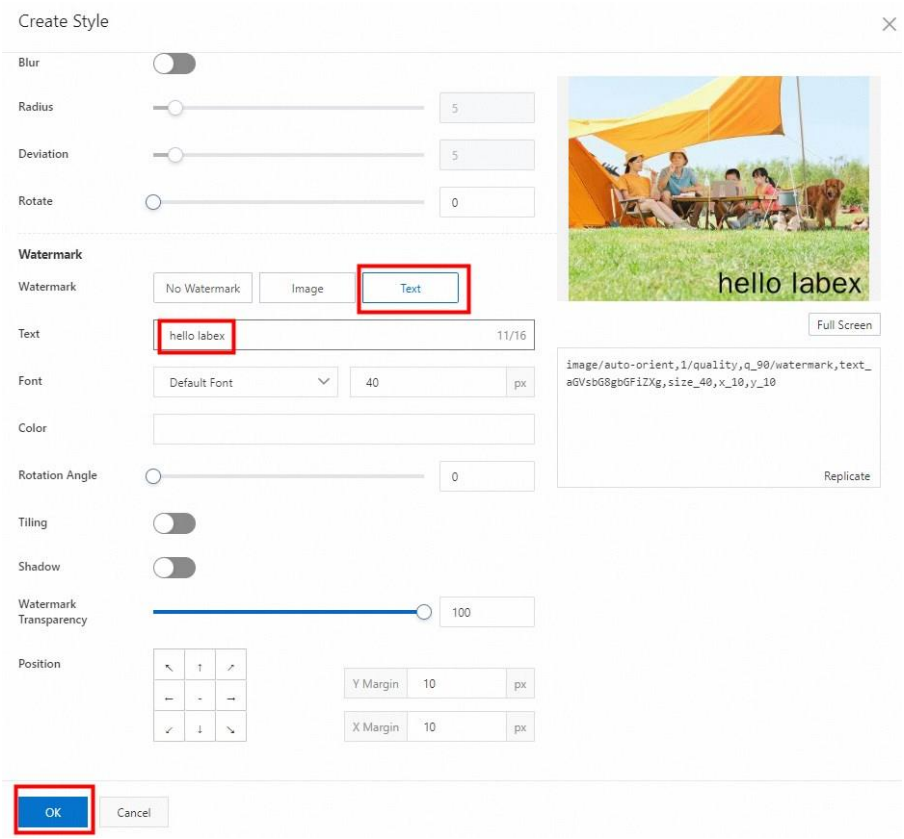
The OSS storage service provides multiple options for processing image resources. For instance, I can specify a domain name to view images for copyright protection. Here, I will add a watermark for added protection.

To add a watermark, I select IMG to enter the image processing console, then click "**Create Style**."




OSS / Buckets / labex-uwpvcacuco / IMG
labex-uwpvcacuco / US (Silicon Valley)
Enter the conter
Overview
Data Usage
Object Management
Permission Control
Content Security
Data Management
Data Processing
IMG
Decompress ZIP Pa...
Event Notification
Bucket Settings
Logging
Data Lake
Access Point
Delete Bucket
IMG
You can include image processing (IMG) parameters, such as the watermark parameter and the parameter that is used convert the form
When you use the IMG feature, you are charged data processing fees, API operation calling fees, and traffic fees. Learn More
URL Format for Image Processing
Default: Domain Name/sample.jpg?x-oss-process=style/stylename
Style Management
Create Style
Import Style
Export Style
Access Settings
Delete
Rule Name
Code
FAQ More
Image resizing
Image watermark
Advanced image compression

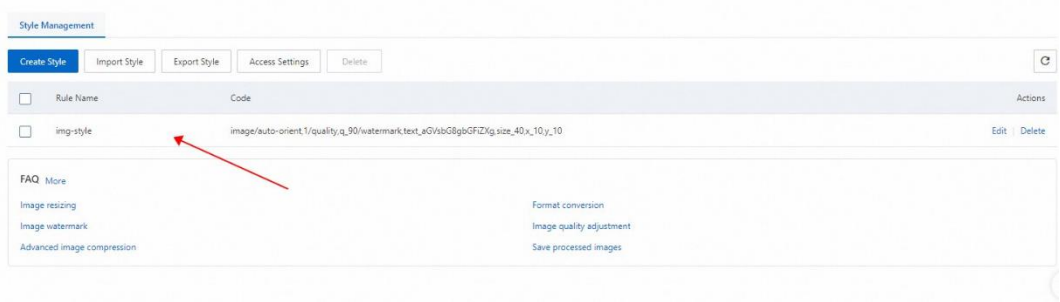

Create Style
Basic Settings
Advanced Settings
Rule Name
img-style
9/63
Naming conventions:
1. The rule name must be 1 to 63 characters in length.
2. The rule name can contain only digits, letters, underscores (_), hyphens (-), and periods (.).
hello labex
Full Screen
image/auto-orient,1/quality,q_90/watermark,text_aGVsbG8gbGFiZXg,size_40,x_10,y_10
Replicate
Image
Format Conversion
Original Format
Progressive Display
Auto Orientation
Quality
Relative
90
Resize
Resize Type
Thumbnail Disabled
Effects
Brightness
0
Contrast
0
OK
Cancel



In the dialog box, I set the "**Style Name**" to img-style and choose "**Text Watermark**" with the content set as "**labex**."

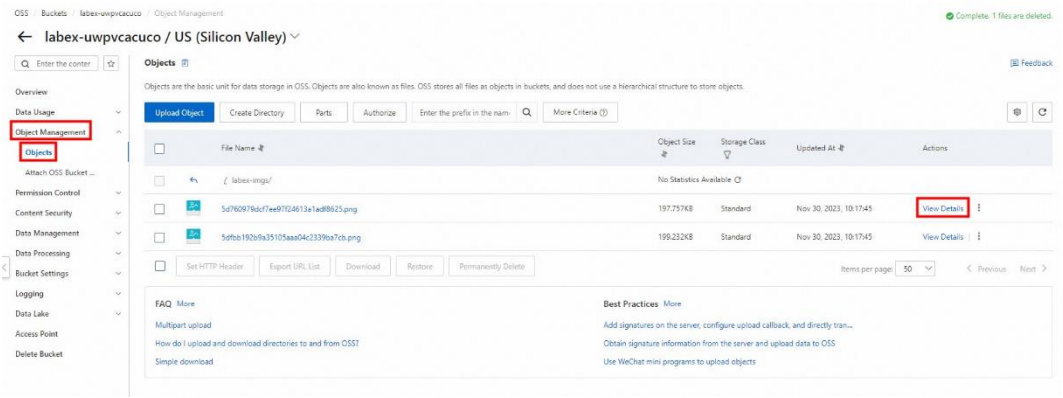
- **Style Name：**img-style
- **Watermark：**Text Watermark
- **Text Content：**labex

This will preview the watermark effect on the right side. I can experiment with other settings if I choose, then click "**OK**" to apply the changes.

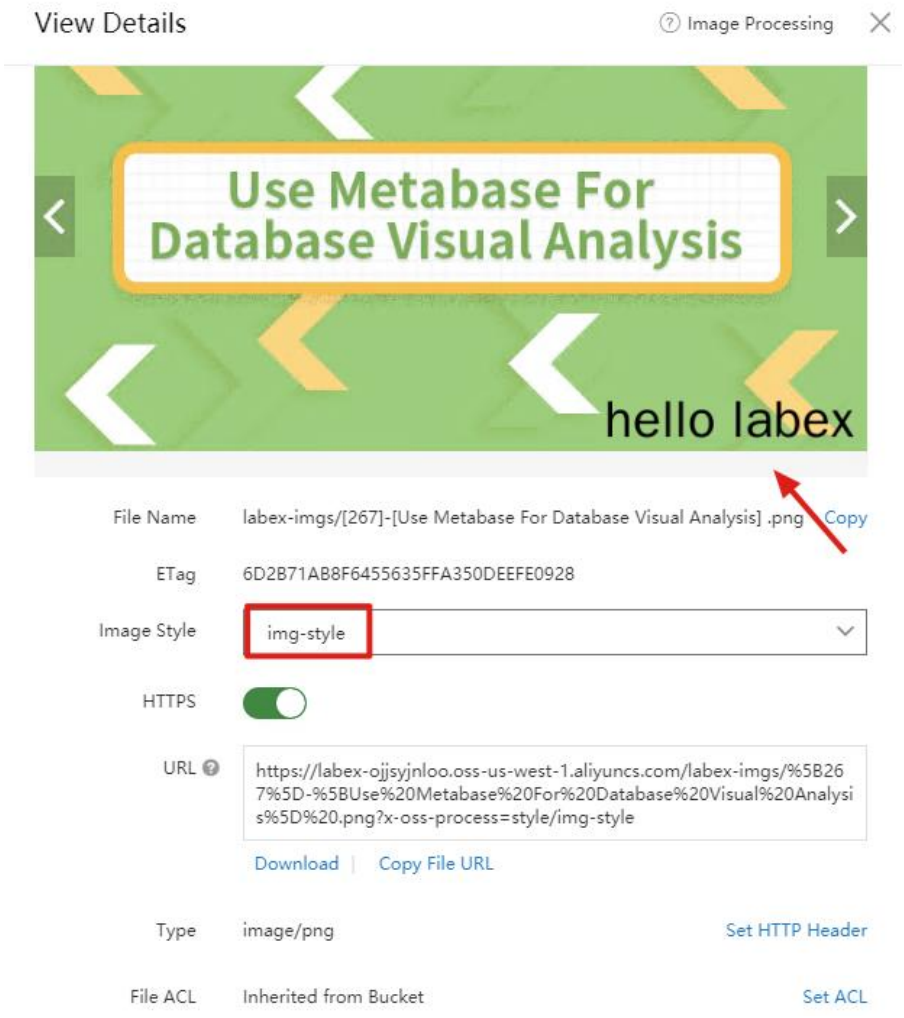


Click "**Edit**" to modify the style, and "**Delete**" to delete the style.

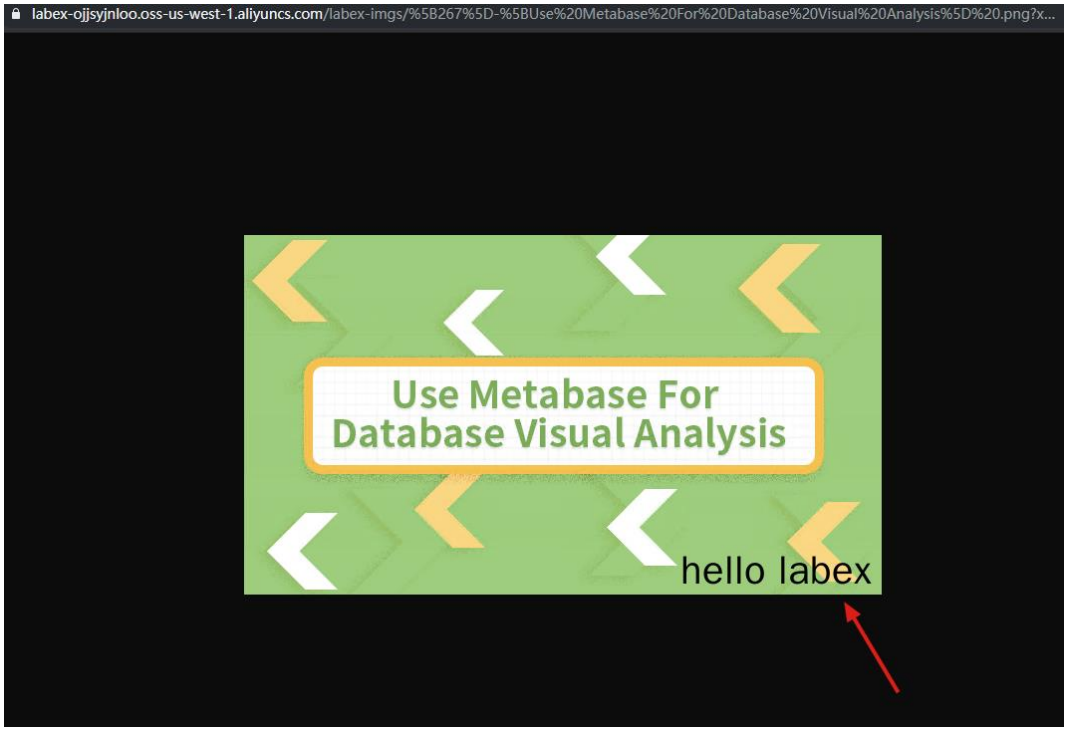
If i want to edit the picture, go back to Files management page, view picture list and click **View Details**.



In **Image Style**, select **img-styles** i just created and i can see that the URL has changed and watermark is added in image preview.



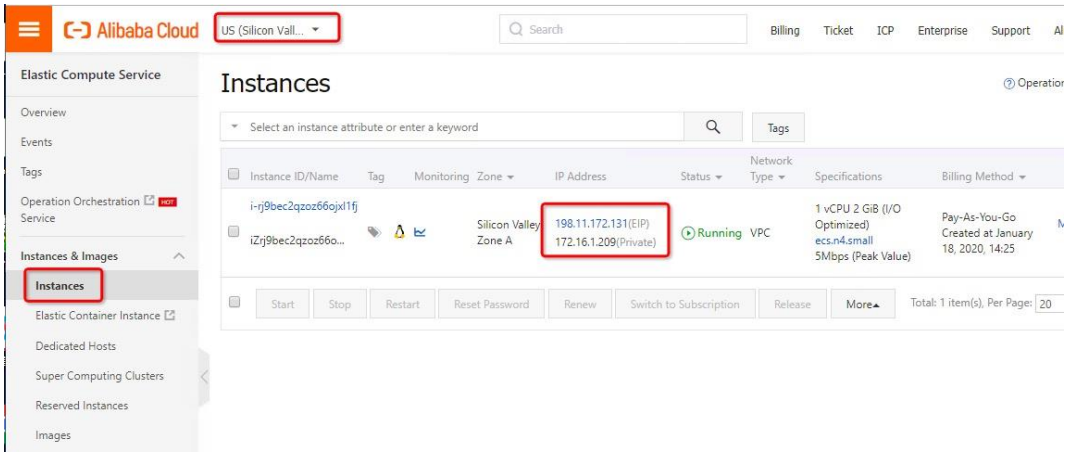
Copy the image URL address after applying the watermark style and access it in the browser:



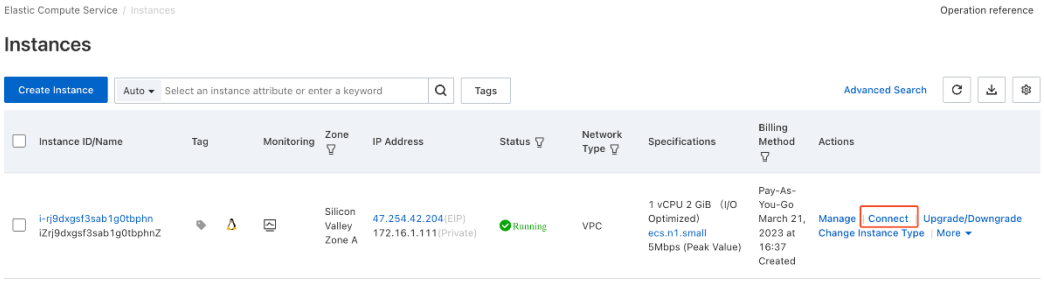
3. Set up the Ghost Blog System on the ECS Instance

3.1 Remotely log on to the ECS instance

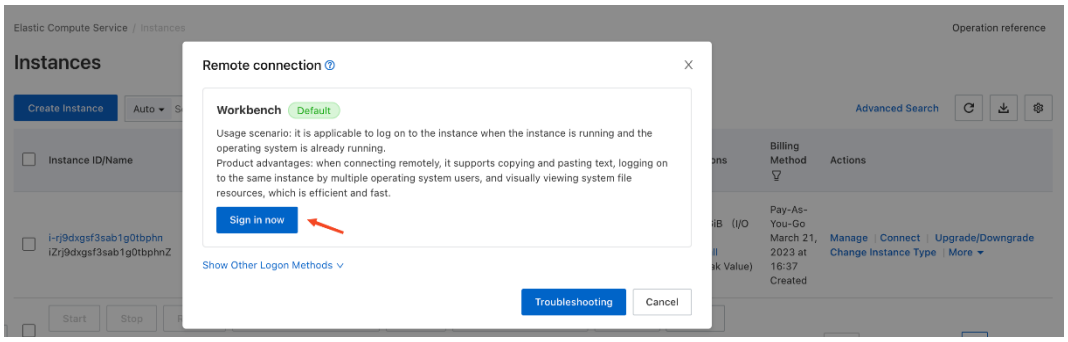
After checking my running ECS instance in the console, I can now remotely log on to it and deploy the application. First, I view the IP address (EIP) of the ECS instance.



In the ECS console, I locate the target ECS instance and click "**Connect**" in the Actions column.

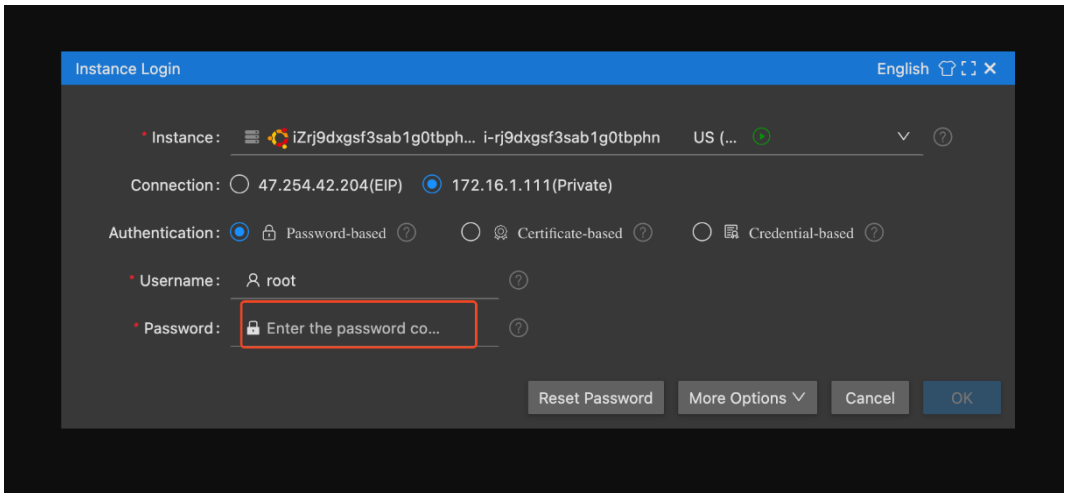


Alibaba Cloud provides a useful tool called Workbench, which is a terminal program that runs in the browser and connects seamlessly to my instance, offering advanced features. If I want to use Workbench, I click "**Sign in now**."

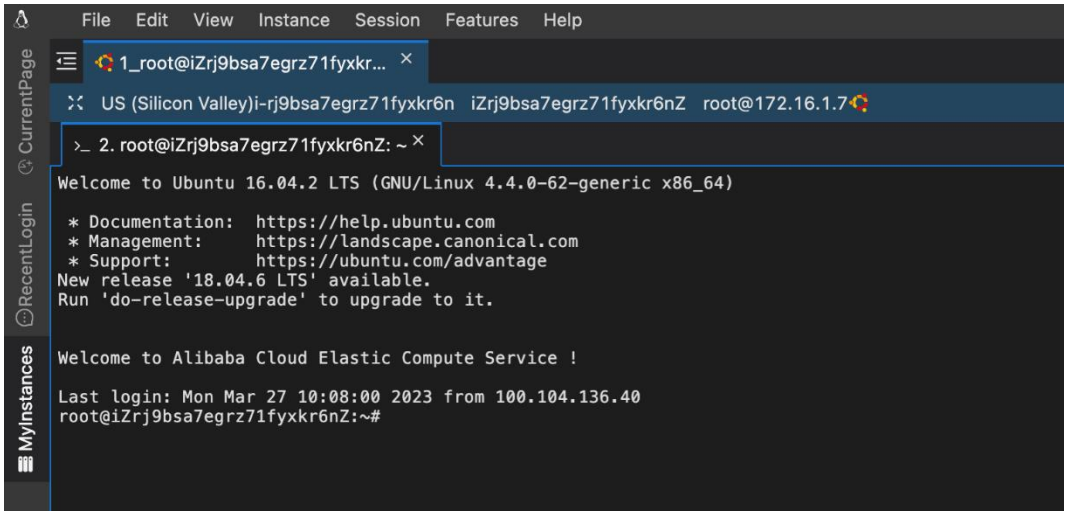


The default account name and password of my ECS instance:
Account name: root
Password: nkYHG890..

In the pop-up window, I only need to enter the password since all other configurations are already associated with this instance by default.



Then I click "**OK**" to connect to the instance, and I am logged in successfully.



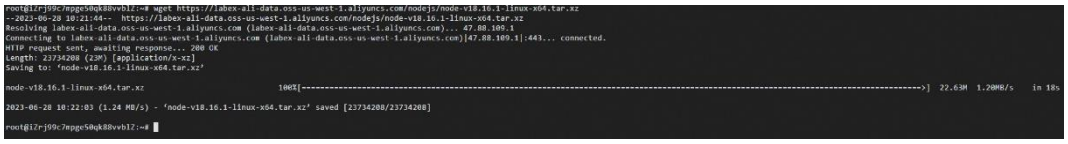
I can also choose the tool i prefer to connect to the ECS instance. For details of remote logon, refer to logon.

3.2 Configure the Node.js environment

The Ghost blog system relies on the Node.js environment to function. I will first configure the Node.js development environment on the ECS instance by following these steps:

1). Download the Node.js installation package:

wget https://labex-ali-data.oss-us-west-1.aliyuncs.com/nodejs/node-v18.16.1-linux-x64.tar.xz



2). Decompress the package:

tar -xf node-v18.16.1-linux-x64.tar.xz

```
root@iZrj99c7mpge50qk88vvblZ:~# tar -xf node-v18.16.1-linux-x64.tar.xz
root@iZrj99c7mpge50qk88vvblZ:~#
```

3). Move the unzipped directory to /usr/local:

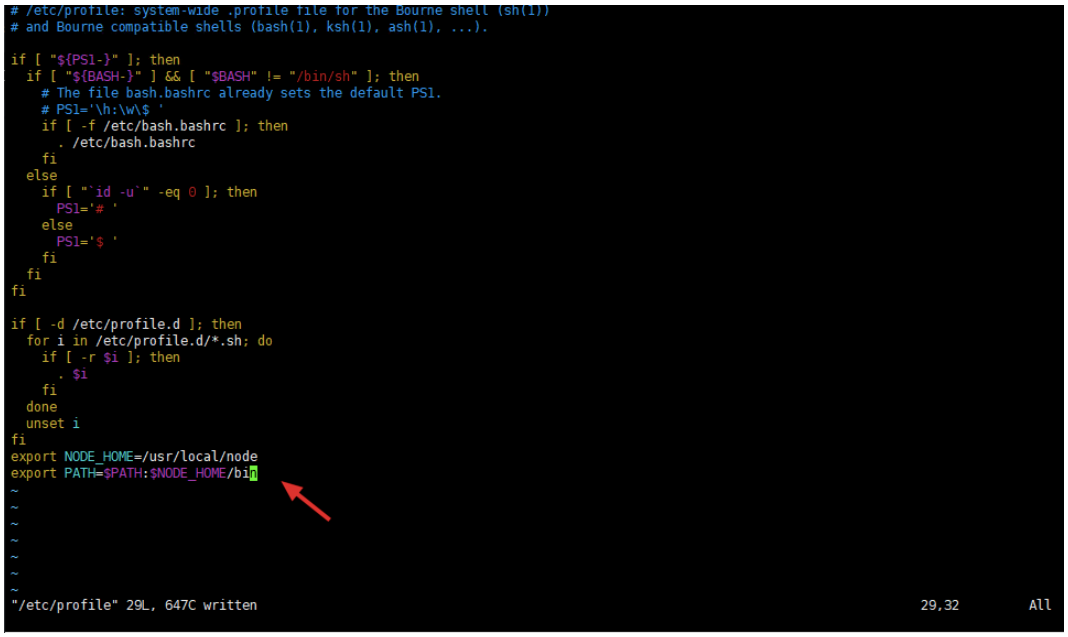
mv node-v18.16.1-linux-x64 /usr/local/node

```
root@iZrj981lvk487fv5xk4r19Z:~# mv node-v18.16.1-linux-x64 /usr/local/node
root@iZrj981lvk487fv5xk4r19Z:~#
root@iZrj981lvk487fv5xk4r19Z:~#
```

4). Add Node.js to the system path by editing /etc/profile :

export NODE_HOME=/usr/local/node

export PATH=$PATH:$NODE_HOME/bin



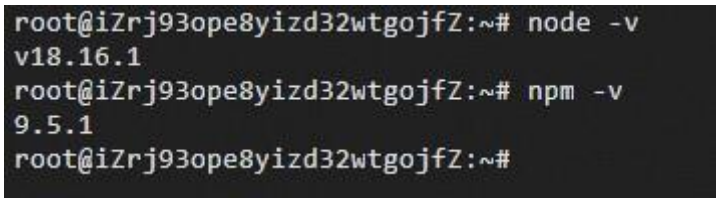
5). Apply the changes:

source /etc/profile

6). Verify the installation by checking the version:

node -v

npm -v



3.3 Deploy the Ghost blog system

What is Ghost?

Ghost is a blog platform written in JavaScript and available in open source code based on the MIT license. Ghost aims to simplify publishing of personal websites and online publishing. Ghost is a personal blog system, which is developed based on Node.js and MySQL. Ghost supports MySQL, MariaDB, SQLite, and PostgreSQL.

Since Ghost is developed based on Node.js, the Node.js environment has already been configured. To deploy the Ghost blog system, I:

1). Install the Ghost CLI:

npm install ghost-cli -g

```
root@iZrj9gxoc6yghya0ifsng2Z:~# npm install ghost-cli -g

> yarn@1.22.10 preinstall /usr/local/node/lib/node_modules/ghost-cli/node_modules/yarn
> :; (node ./preinstall.js > /dev/null 2>&1 || true)

/usr/local/node/bin/ghost -> /usr/local/node/lib/node_modules/ghost-cli/bin/ghost
+ ghost-cli@1.17.3
added 417 packages from 207 contributors in 21.01s
root@iZrj9gxoc6yghya0ifsng2Z:~#
```

2). Create a new user "**ghost**" and set permissions:

useradd ghost

mkdir /home/ghost

chown -R ghost:ghost /home/ghost

```
root@iZrj9guyozsg67nt9r36icZ:~# useradd ghost
root@iZrj9guyozsg67nt9r36icZ:~#
root@iZrj9guyozsg67nt9r36icZ:~# mkdir /home/ghost
root@iZrj9guyozsg67nt9r36icZ:~#
root@iZrj9guyozsg67nt9r36icZ:~# chown -R ghost:ghost /home/ghost
root@iZrj9guyozsg67nt9r36icZ:~#
root@iZrj9guyozsg67nt9r36icZ:~#
```

3). Switch to the "**ghost**" user:

su – ghost

```
root@iZrj9guyozsg67nt9r36icZ:~# su - ghost
$
$
```

4). Install Ghost:

ghost install local

```
$ ghost install local
✔ Checking system Node.js version - found v14.18.0
✔ Checking current folder permissions
✔ Checking memory availability
✔ Checking free space
✔ Checking for latest Ghost version
✔ Setting up install directory
✔ Downloading and installing Ghost v4.17.1
✔ Finishing install process
✔ Configuring Ghost
✔ Setting up instance
✔ Starting Ghost

Ghost uses direct mail by default. To set up an alternative email method read our docs at https://ghost.org/docs/config/#mail

------------------------------------------------------------------------

Ghost was installed successfully! To complete setup of your publication, visit:

    http://localhost:2368/ghost/

$
```

5). Stop the Ghost service:

ghost stop

```
$
$ ghost stop
✔ Stopping Ghost: ghost-local
$
$
$
```

The Ghost application has been deployed on the ECS instance in the preceding step. However, some further modifications are required for normal use of the Ghost application.

To make the Ghost content accessible on the public network, I need to modify the configuration file to set the listener port to 80, which is a standard port for web pages.

Modify the Ghost configuration file.

ls

vim config.development.json

```
$ ls
config.development.json  content  current  versions
$
$ vim config.development.json
```

Modify the configuration file, as shown in the following figure. ***Please replace the public IP address of your current ECS instance***

```
{
  "url": "http://47.88.53.37:3268/",
  "server": {
    "port": 3268,
    "host": "0.0.0.0"
  },
  "database": {
    "client": "sqlite3",
    "connection": {
      "filename": "/home/ghost/content/data/ghost-local.db"
    }
  },
  "mail": {
    "transport": "Direct"
  },
  "logging": {
    "transports": [
      "file",
      "stdout"
    ]
  },
  "process": "local",
  "paths": {
    "contentPath": "/home/ghost/content"
  }
}
~
~
```

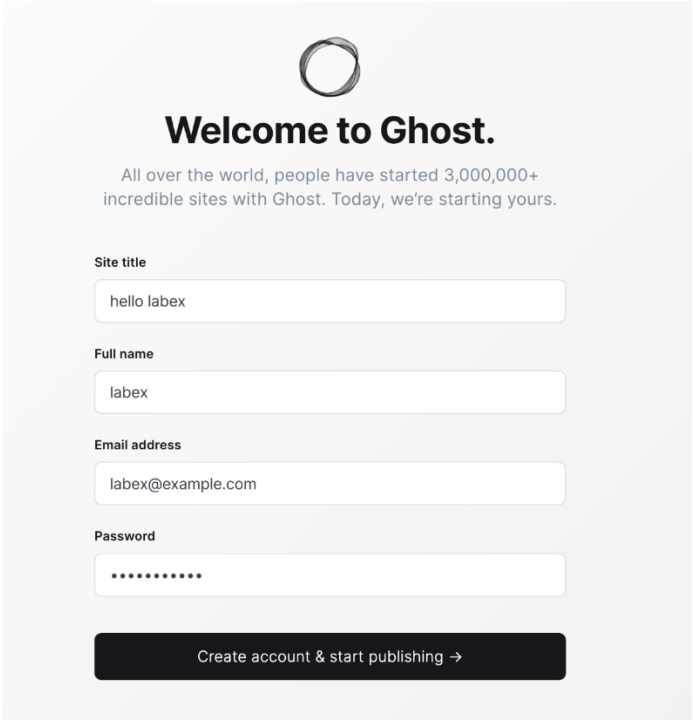
After editing the config.development.json file with my ECS instance's IP address, I restart Ghost.

After this, I can access the Ghost application by entering the ECS instance's IP address in my browser.

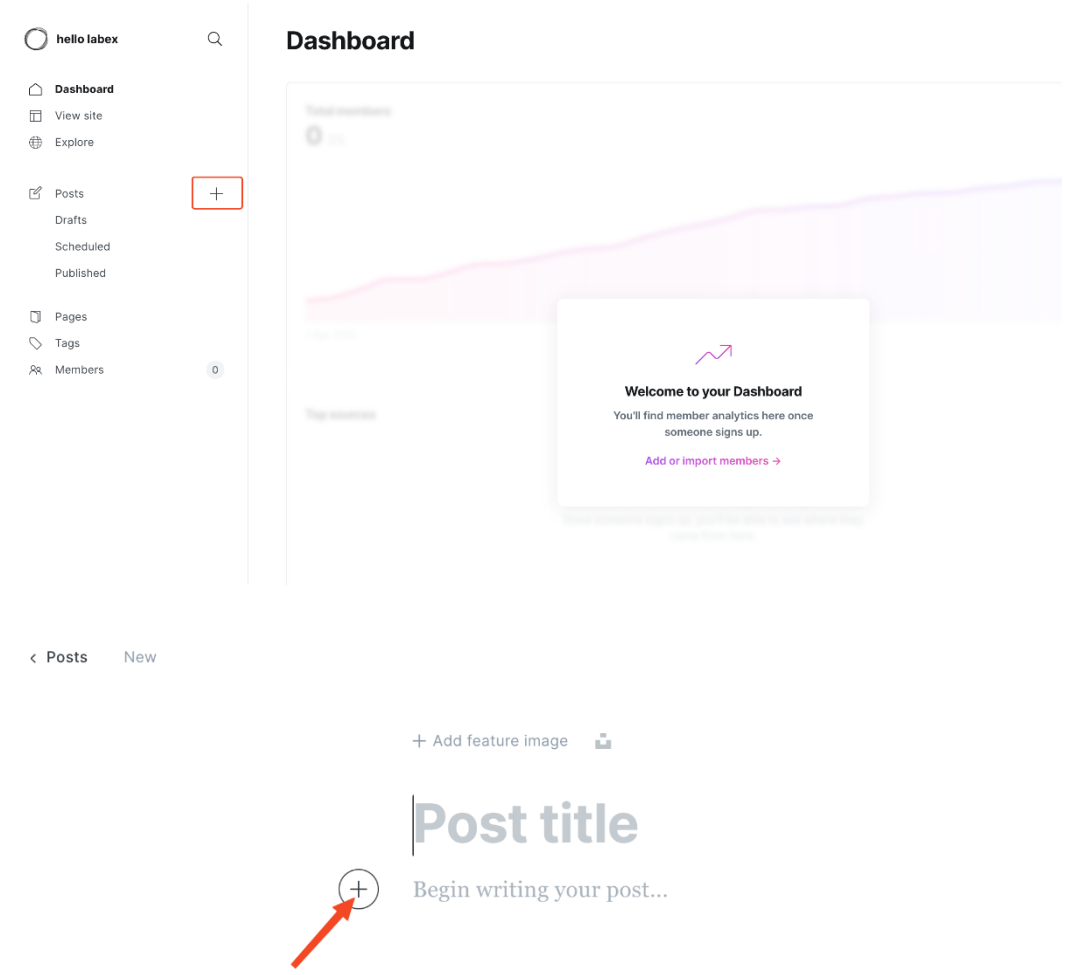
4. Use Ghost as your personal album

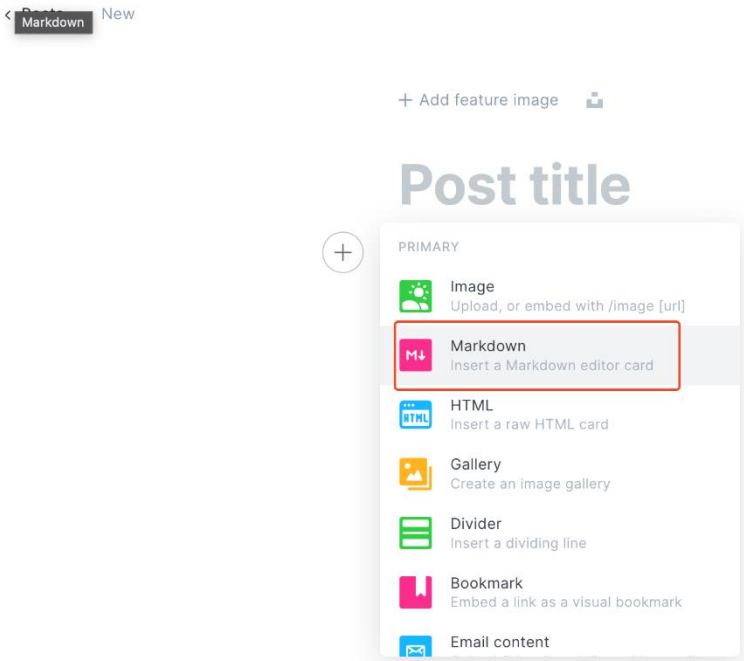
Once the Ghost application is ready, I create a user account to publish images or articles.

Refer to the figure below to set the account information. The password is set to **Aliyun-test.**



After logging in, I add a new post, replacing "**YOUR-OSS-PIC-URL**" with the URL address of the picture I stored on OSS, then click "**Publish**."



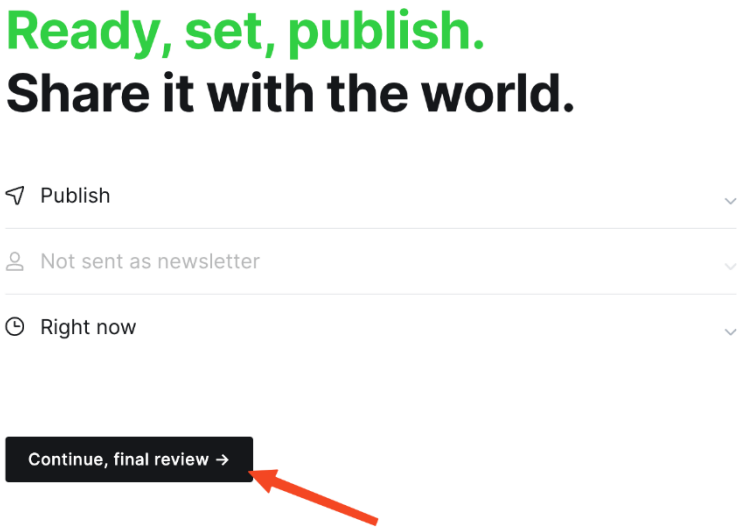

Markdown
New
+ Add feature image
Post title
PRIMARY
Image
Upload, or embed with /image [url]
Markdown
Insert a Markdown editor card
HTML
Insert a raw HTML card
Gallery
Create an image gallery
Divider
Insert a dividing line
Bookmark
Embed a link as a visual bookmark
Email content

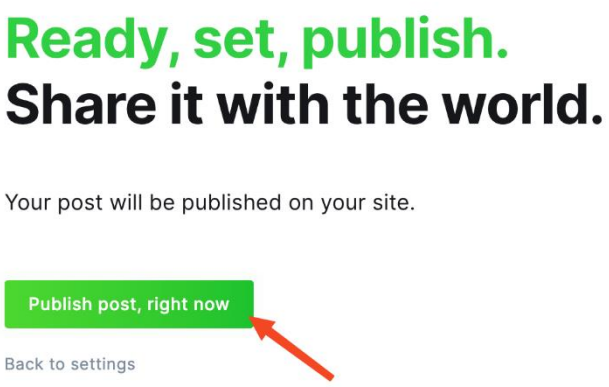
first

M↓

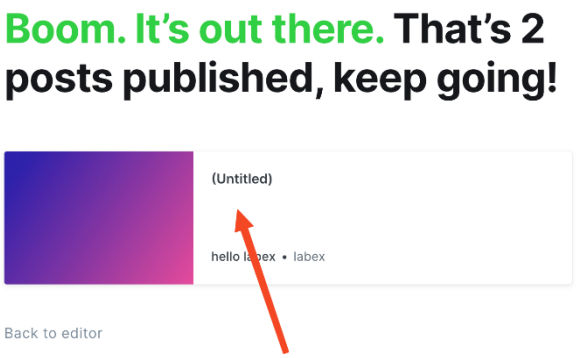
```
![image](https://labex-ojjsyjnloo.oss-us-west-1.aliyuncs.com/labex-imgs/%5B267%5D-%5BUse%20Metabase%20For%20Database%20Visual%20Analysis%5D%20.png?x-oss-process=style/img-style)
```

After publishing ready, click Continue.



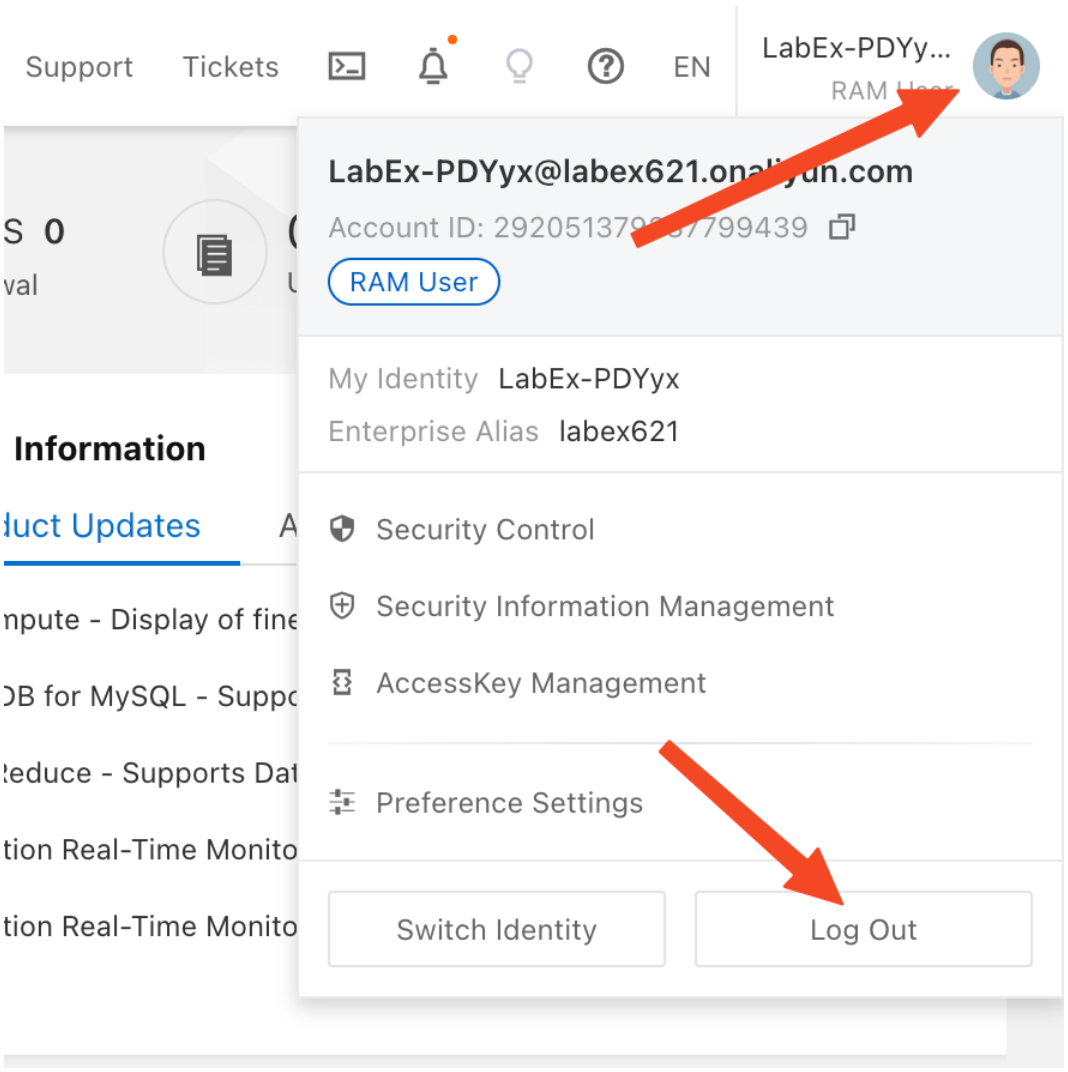


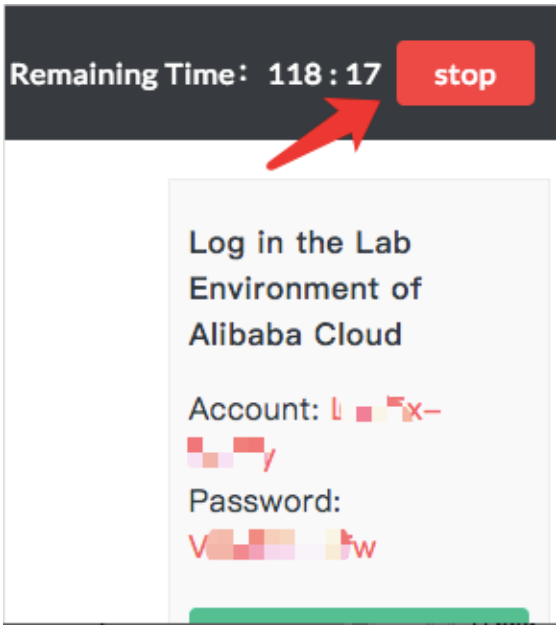
Click to view.



Users can cut off the above result picture when they are doing the lab and send it to the teacher, indicating that the current lab has been completed.

Reminder:
Before i leave this lab, remember to log out your Alibaba RAM account before you click the 'stop' button of your lab. Otherwise you'll encounter some issue when opening a new lab session in the same browser:


Support
Tickets
EN
LabEx-PDYy...
RAM User
LabEx-PDYyx@labex621.onaliyun.com
Account ID: 292051379[illegible]7799439
RAM User
My Identity LabEx-PDYyx
Enterprise Alias labex621
Security Control
Security Information Management
AccessKey Management
Preference Settings
Switch Identity
Log Out
Information
duct Updates
npute - Display of fine
DB for MySQL - Suppo
Reduce - Supports Dat
tion Real-Time Monito
tion Real-Time Monito


Remaining Time: 118 : 17
stop
Log in the Lab Environment of Alibaba Cloud
Account:
Password:

5. Experiment Summary

Here are my key takeaways from this experiment:

- How to use OSS to manage image resources
- How to configure the Node.js environment on an ECS instance
- How to deploy and modify the Ghost blog system for public access
- How to set up a personal album in the Ghost system using OSS to publish personal images