


ModelArts

Presented by Thu Ta Naing

ModelArts (ExeML) provides the following four AI services:

- (1) **Image Classification** - detects and classifies images
- (2) **Object Detection** - detects whether a certain class of object is included in an input image
- (3) **Predictive Analytics** - on structured data, which can make classification or prediction.
- (4) **Sound Classification** - identifies whether a certain sound appears in a sound file. It can be used to monitor abnormal sounds in production or security scenarios.

Note: Before Using ExeML Services, we must add AK (Access Key) and Secret Key (SK)


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Settings

ExeML

AK

Enter an access key ID.

SK

Enter a secret access key.

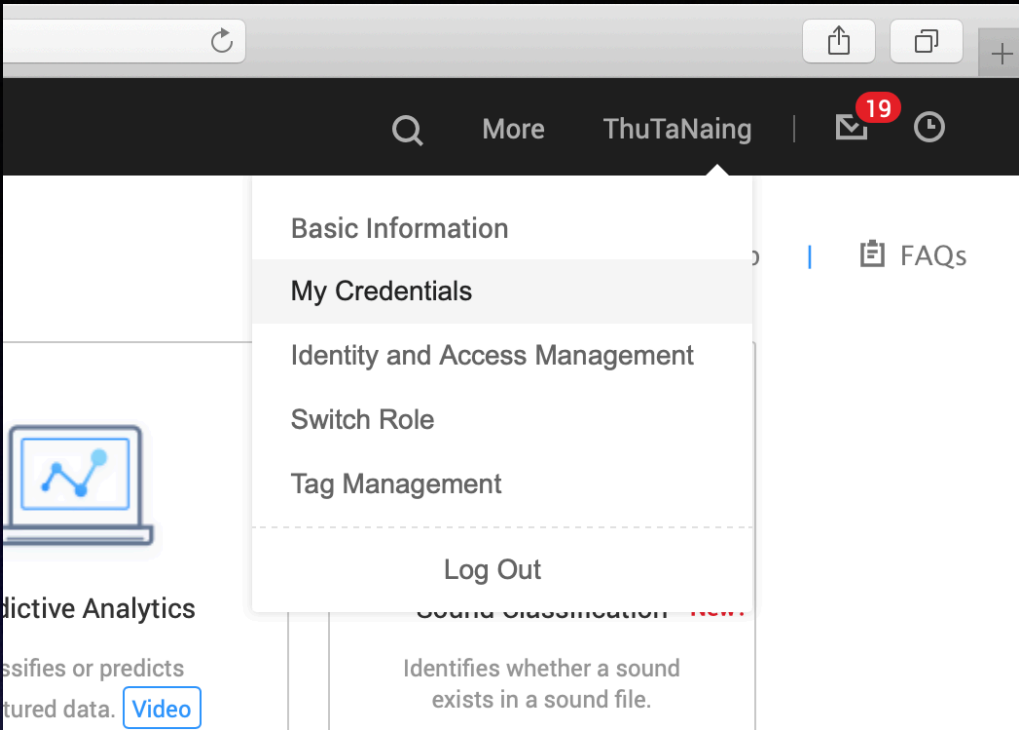
You need to configure an access key for authorizing access to other cloud services such as OBS when using ModelArts. [Add Access Key](#)

OK

Cancel

Project Name	Project ID	Training Status	Training Dataset	Created
ModelArt-test	Object Dete...	Successful	/storage-modelart/...	Jul 15, 2019 12:58:16 GMT+...
exeML-c01c	Image Clas...	Successful	/obscarmodel/cars/	Jul 15, 2019 11:12:31 GMT+...

Go to Ur Account Name-> My Credentials.



Then in Access Keys, Click “Add Access Key”. Credentials.csv will be downloaded into ur computer.

Projects

Access Keys

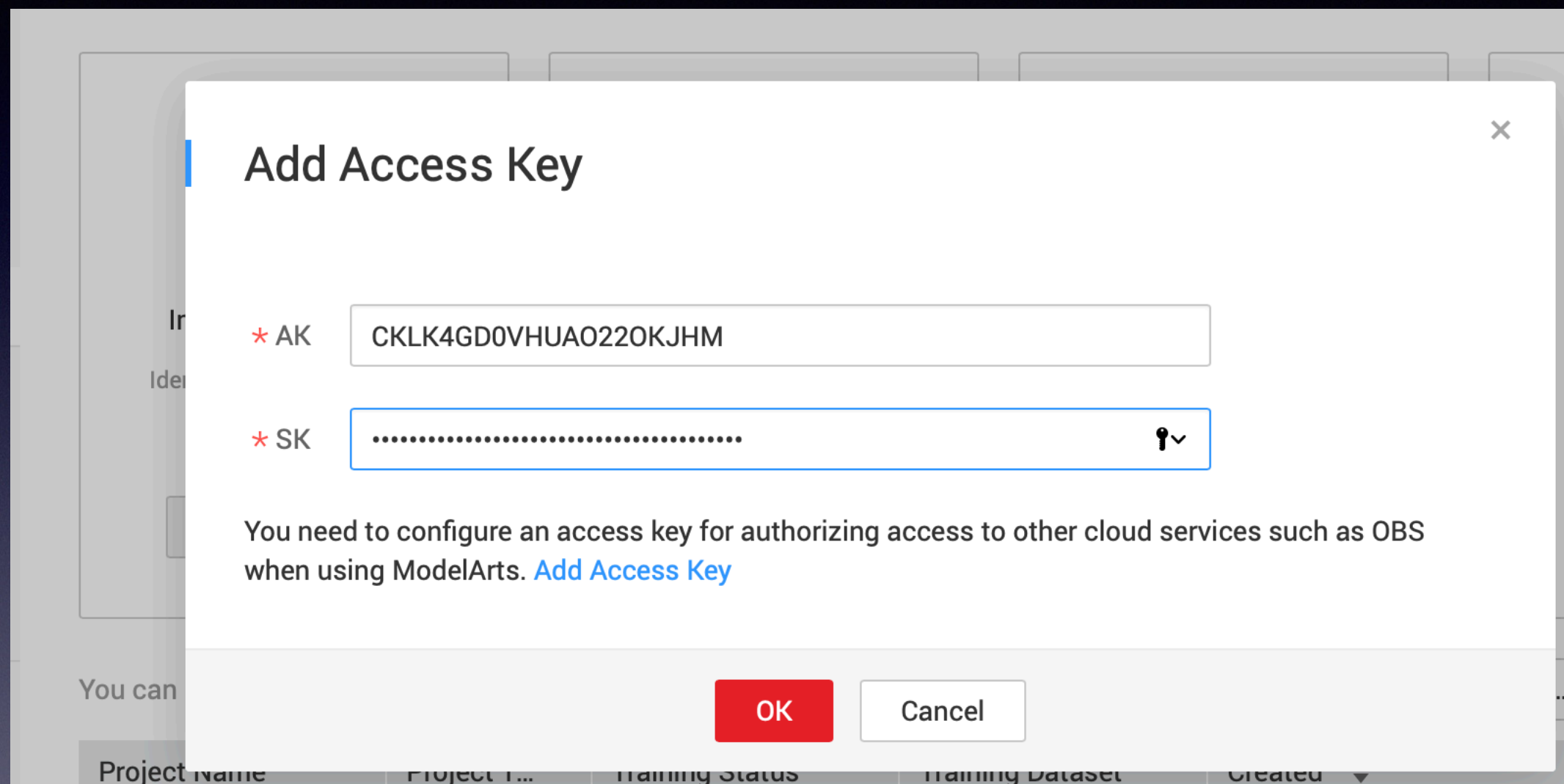
Access keys allow expanding the permissions of a user, **so make sure they are kept secure and change them periodically.** Leaked access key

+ Add Access Key

You can add 0 more access keys.

Access Key ID	Created	Status
RPNLSWSBJ0QRQRHYZDZZ	Jul 15, 2019 15:48:00 GMT+06:30	Active
CKLK4GD0VHUAO22OKJHM	Jul 22, 2019 15:40:55 GMT+06:30	Active

Then, add AK value and SK value .



The image shows a modal dialog box titled "Add Access Key" with a close button (X) in the top right corner. The dialog contains two input fields, each preceded by a red asterisk (*). The first field is labeled "AK" and contains the text "CKLK4GD0VHUA022OKJHM". The second field is labeled "SK" and contains a series of dots, indicating a password or secret key, with a key icon and a dropdown arrow on the right. Below the input fields, there is a paragraph of text: "You need to configure an access key for authorizing access to other cloud services such as OBS when using ModelArts. [Add Access Key](#)". At the bottom of the dialog, there are two buttons: a red "OK" button and a white "Cancel" button with a grey border. The background of the image is a blurred screenshot of a web application interface, showing a table with columns like "Project name", "Project ID", "Training Status", "Training Dataset", and "Created".

Add Access Key

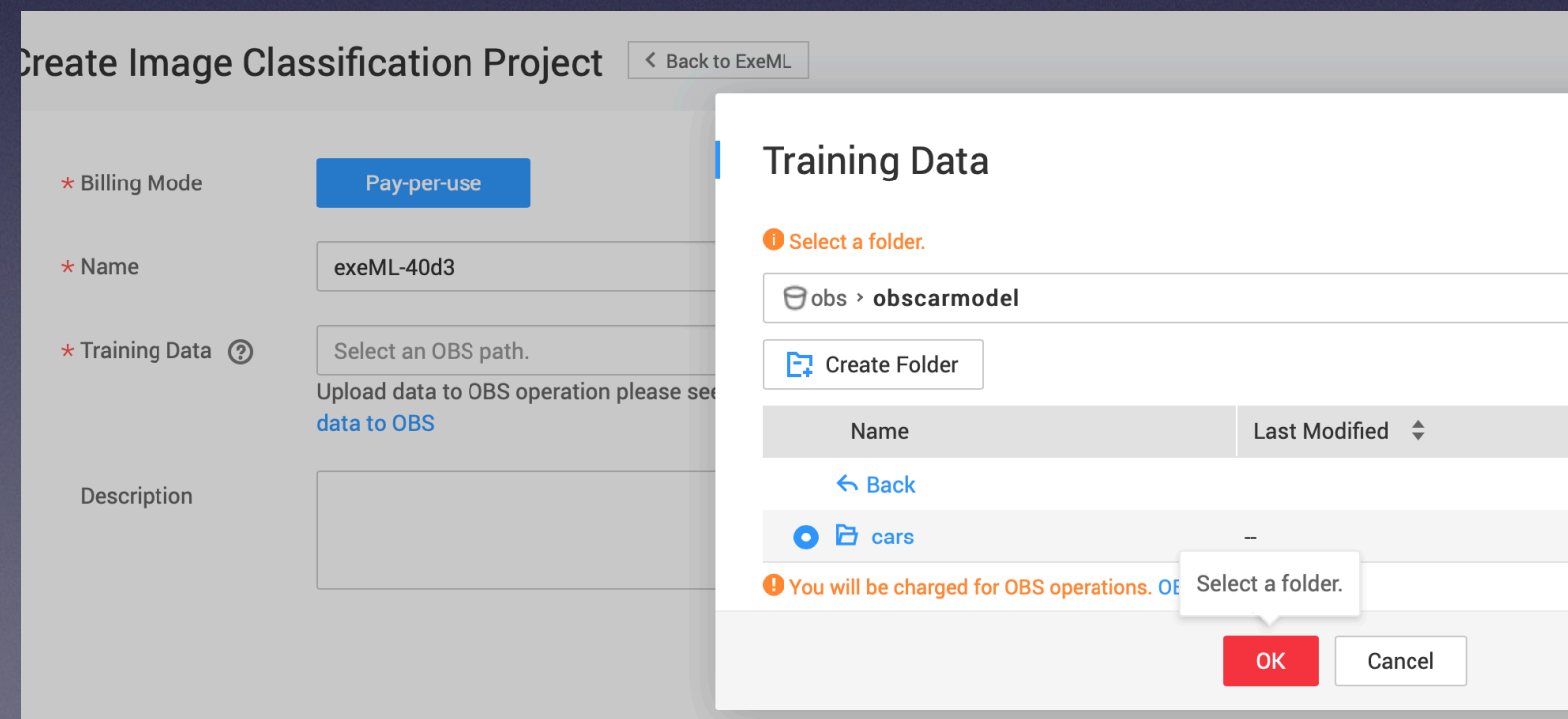
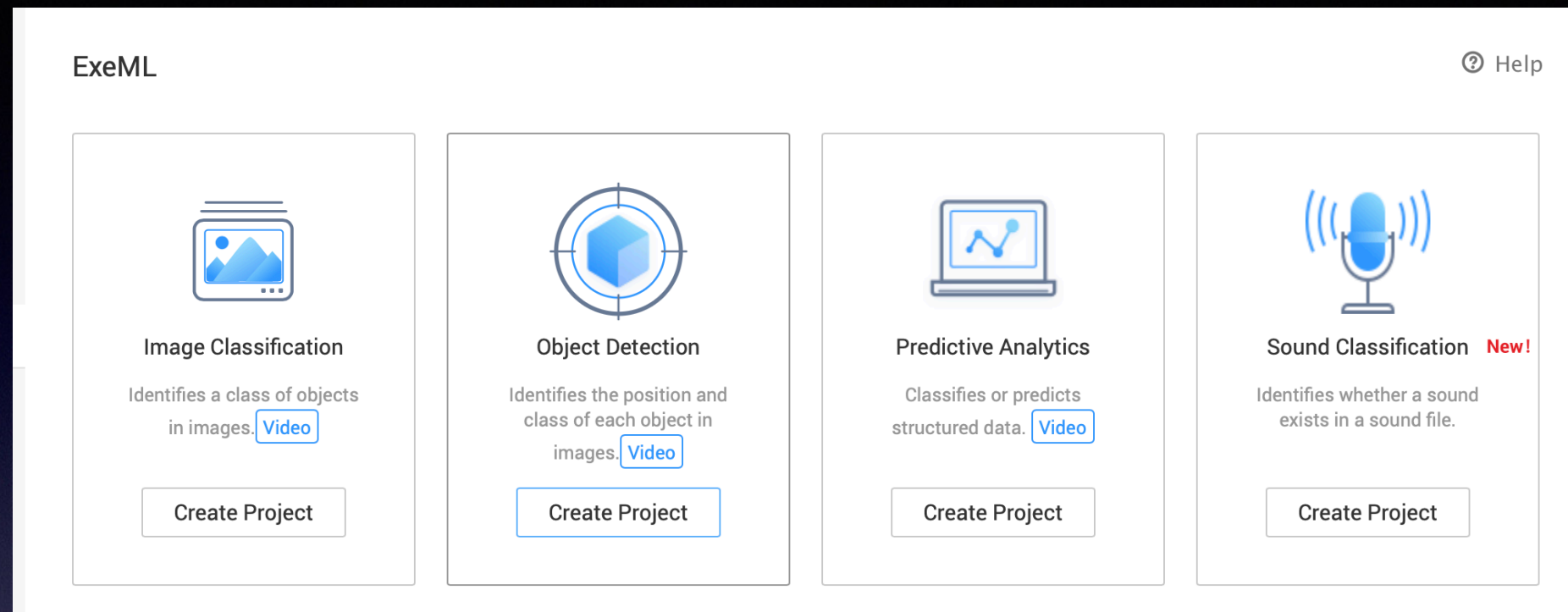
* AK CKLK4GD0VHUA022OKJHM

* SK

You need to configure an access key for authorizing access to other cloud services such as OBS when using ModelArts. [Add Access Key](#)

OK Cancel




ExeML has four services as shown below.



Upload the Images you want to train and make labels. In this case, Cars Image Classification Project is used, so Different types of car images will need to be uploaded.

Synchronize Data Source

☐ Select Current Page



Add Label Selected 1 images.

Label

Toyota_Vios

×

OK

Cancel










All Labels 4

Label	Count	Operation
Alphard	6	
Bugatti	10	
Toyota_Vios	6	


For Commercial Purposes, each class (e.g. Car Type) must contain at least 100 Images to achieve enough accuracy.


Then, click Train for this model.

All Labels 4

Label	Count 	Operation
Alphard	6	 
Bugatti	10	 
Toyota_Vios	7	 
lambo	10	 

Training Configuration

Max Training Duration (h) 

Advanced Settings 

Train

The Trained Model is Running Now. Currently, This is in Version 4.

exeML-c01c

< Back to ExeML

1 Label Data ✓

2 Train Model ✓

3 Deploy Service ⌵

Version Manager

Running

V004 (job608014f4)

Jul 22, 2019 16:08:26

Accuracy: —

Deploy

Delete

Successful

V003 (job6273341d)

Jul 15, 2019 15:07:29

Accuracy: 88%

Deploy

Delete

Successful

V002 (joba711e4d5)

Jul 15, 2019 13:38:12

Accuracy: 73%

Deploy

Delete

Successful

V001 (job0cee333d)

Jul 15, 2019 13:05:18

Accuracy: 81%

Deploy

Delete

Training Details

✓

Training task submitted successfully.

The training status of the current version is **Running** . Please wait.

Back to ExeML

V004 has been performed successfully.

ExeML-c01c

[< Back to ExeML](#)

1 Label Data

2 Train Model

3 Deploy Service

Version Manager

	V004 (job608014f4) Jul 22, 2019 16:08:26 Accuracy: 79%	Deploy Delete
	V003 (job6273341d) Jul 15, 2019 15:07:29 Accuracy: 88%	Deploy Delete
	V002 (joba711e4d5) Jul 15, 2019 13:38:12 Accuracy: 73%	Deploy Delete
	V001 (job0cee333d) Jul 15, 2019 13:05:18 Accuracy: 81%	Deploy Delete

Training Details

Successful
Start Time Jul 22, 2019 16:08:34
Training Duration 00:02:10






Evaluation Result


Recall		0.798
Precision		0.799
Accuracy		0.788
F1 Score		0.797


Custom Parameter

Max Training Duration (h)		1
Max Inference Duration (ms)		500
Incremental Training Version		--

V004 has been performed successfully. Accuracy is 79%. To improve more accuracy, remove the low resolution photos, add more photos for each class & retrain again.

Classification Statistics				<input type="text" value="Enter a keyword."/> 	
Label 	F1 Score 	Precision 	Recall 		
Alphard	<div><div></div></div> 83%	0.833	0.833		
Bugatti	<div><div></div></div> 76%	0.727	0.800		
lambo	<div><div></div></div> 74%	0.778	0.700		
Toyota_Vios	<div><div></div></div> 86%	0.857	0.857		

Version Manager 

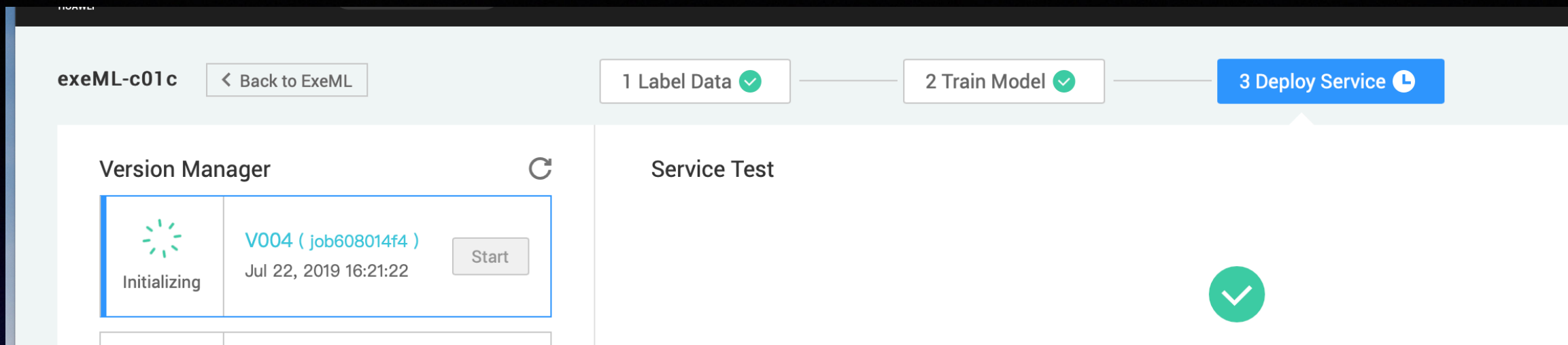

Successful

V004 (job608014f4)
Jul 22, 2019 16:08:26
Accuracy: **79%**

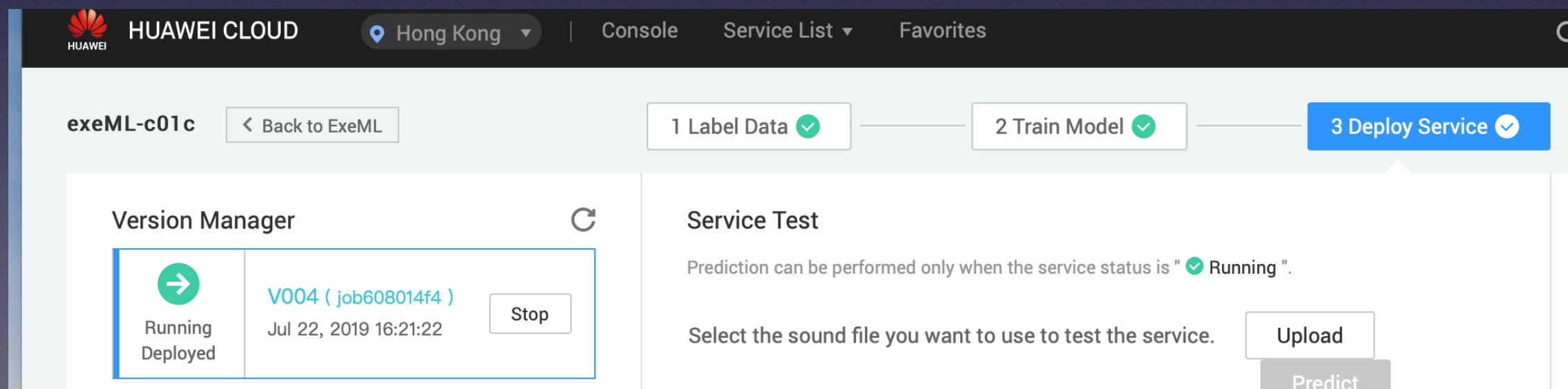
Deploy

Delete

To Deploy the Service, click “Deploy”.



After the Deploy is finished, you will see “Running Deployed” status.



Go to Service Deployment-> Real Time Services.

Name	exeML-c01c_ExeML_1...	Service ID	ddc40ca8-a45f-49ea-8c1d-940a3423af99
Status	→ Running	Source	My Deployment
Failed Calls/Total Calls ?	0 / 0	Network Configuration	Unconfigured
Description	-		

Usage Guides Prediction Configuration Updates Monitoring Logs Sharing [Traceback Diagrams](#)

Request Path

Image File

Upload

Predict

Test Image Preview



Test Result

✓ Prediction successful.

```
1 {  
2   "predicted_label": "Alphard",  
3   "scores": [  
4     [  
5       "Alphard",  
6       "0.515"  
7     ],  
8     [  
9       "Toyota_Vios",  
10      "0.185"  
11    ],  
12    [  
13      "Bugatti",  
14      "0.151"  
15    ],  
16    [  
17      "lambo",  
18      "0.149"  
19    ]  
19  ]  
}
```


Thank You

Contact-09976674229 For further support
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