Tutorial on Huawei Cloud

SG Healthcare AI Datathon 2020

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Components

- Elastic Cloud Server (ECS)
  - Remote CPU/GPU Server
- Relational Database Service (RDS) + Data Admin Service (DAS)
  - EHR Databases
- Object Storage Service (OBS)
  - Downloading Imaging Datasets to your ECS

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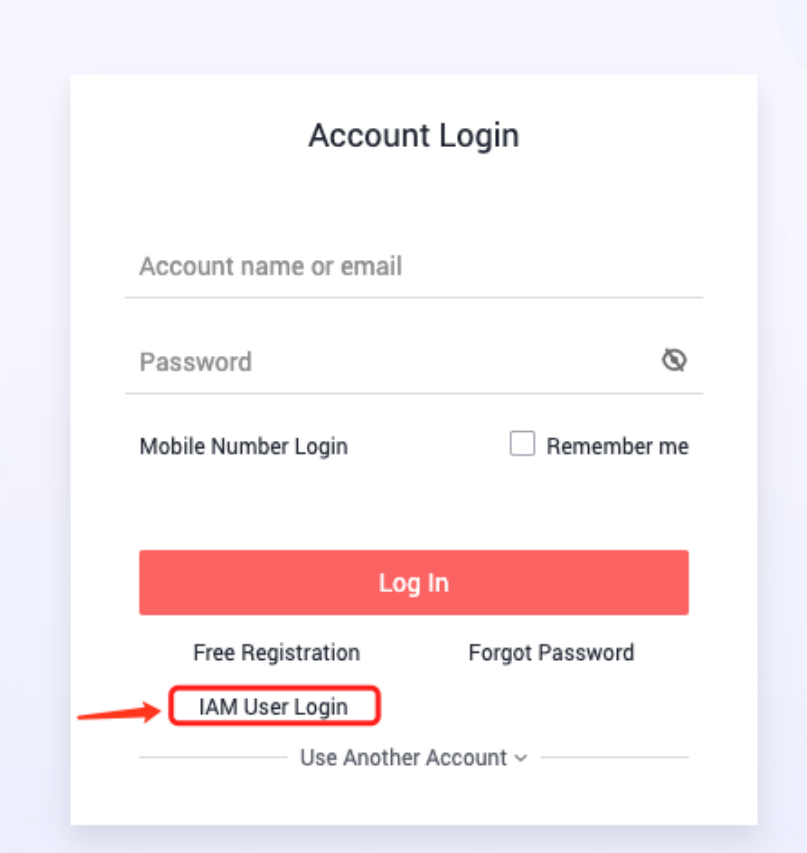
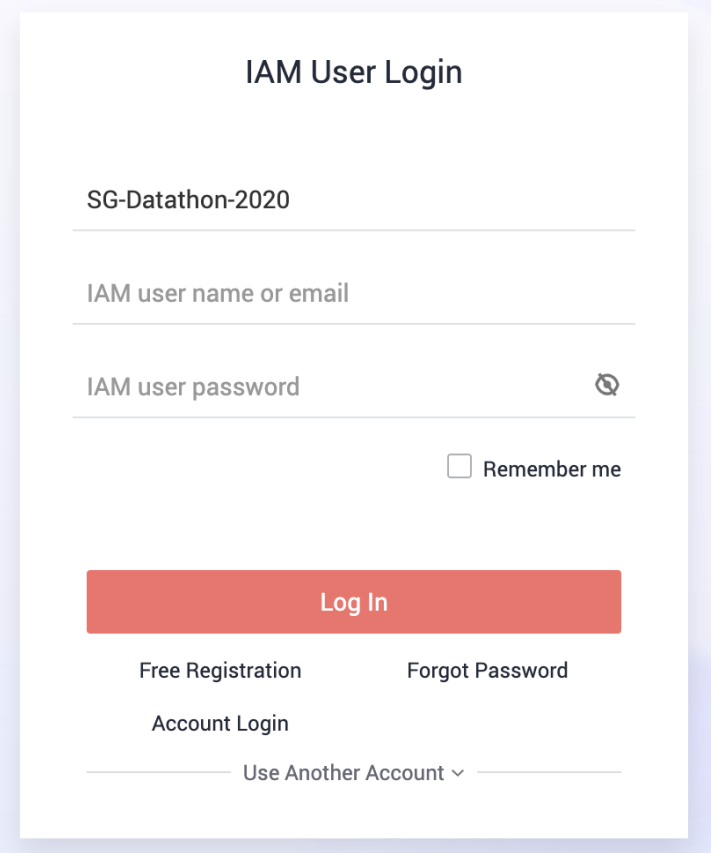
Log into Huawei Cloud

https://auth.huaweicloud.com/authui/login.html#/login
https://tinyurl.com/huaweicloud2020





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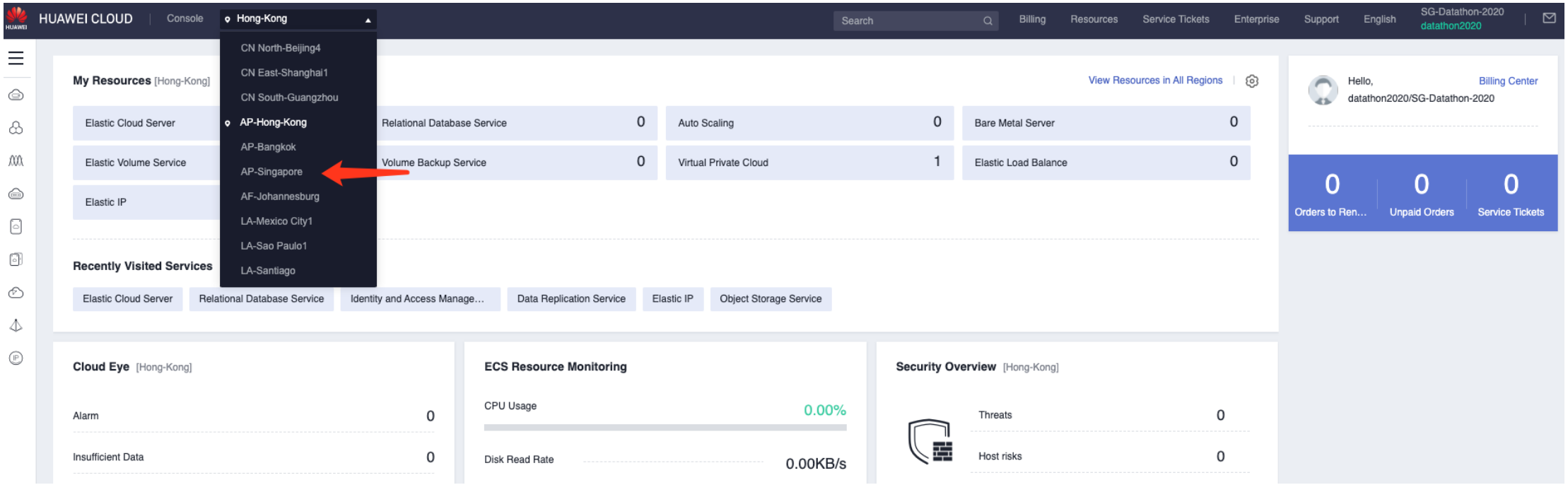
Elastic Cloud Server (ECS)



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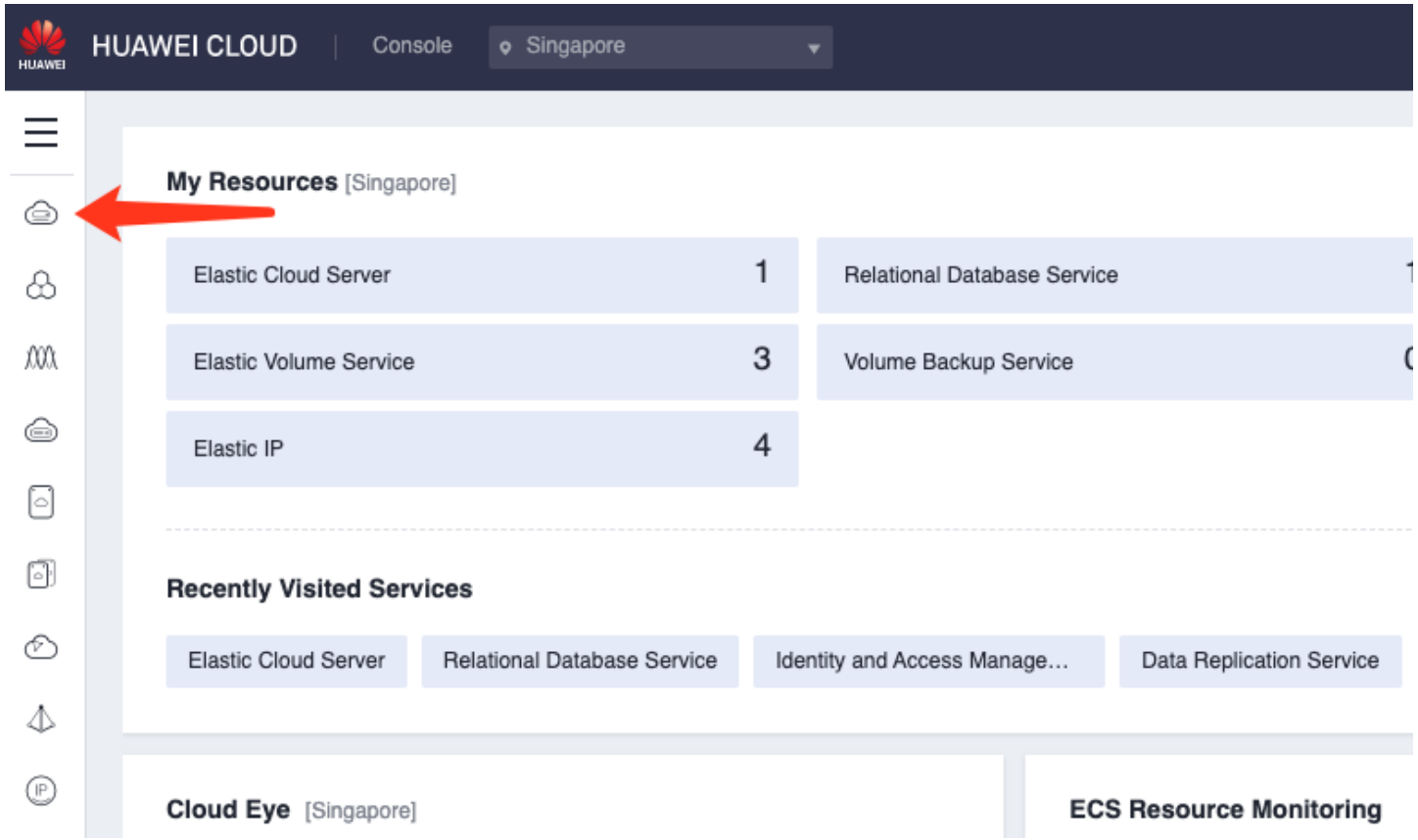
Elastic Cloud Server (ECS)



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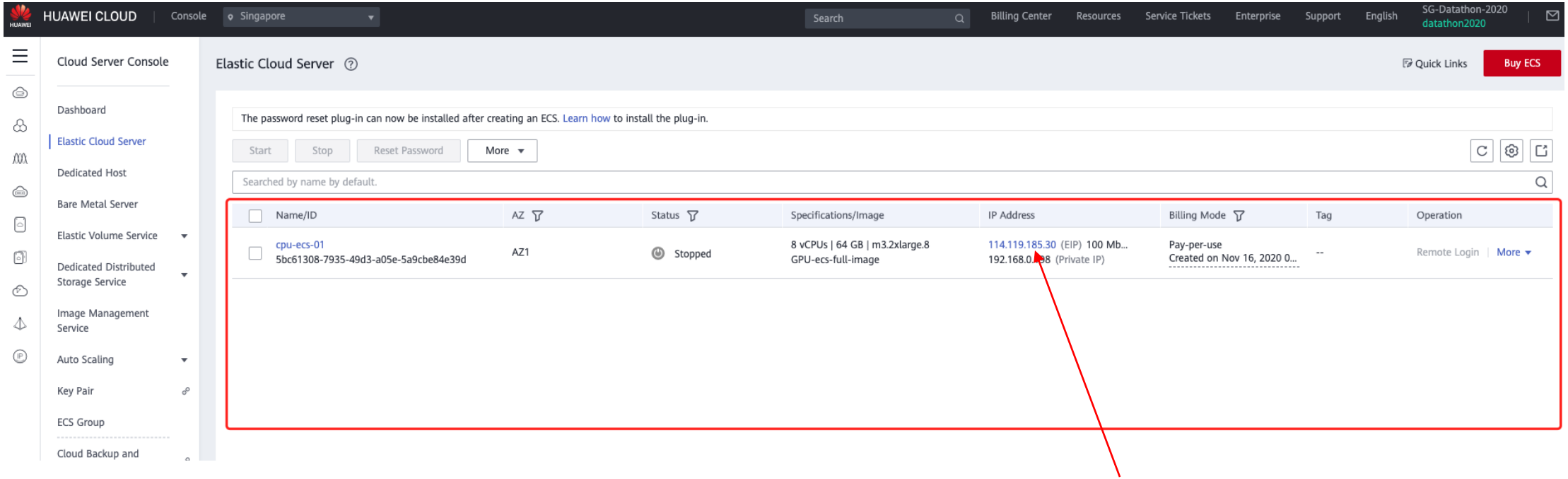
Elastic Cloud Server (ECS)

- Find the ECS of your own team



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Elastic Cloud Server (ECS)

- Access via SSH
  - ssh root@your_ECS_EIP
- Username: root
- Password of your team's ECS will be given via MS Teams

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Elastic Cloud Server (ECS)

- Default virtual environment: conda_env
- Installed packages:
  - Anaconda packages, PyTorch 1.7.0, TensorFlow 2.3.1
  - Feel free to install more packages that you need
- To use Jupyter Lab (Python and R), do the following:
  - On the ECS terminal:
    - Just one of the team members do:
    - run “tmux”, enter tmux session
    - run “jupyter lab --no-browser --allow-root”, start jupyter lab server
    - Copy the token and save it somewhere for later use
    - press ctrl+b, then press d, back to main screen
  - On your own laptop’s terminal
    - run “ssh –f –L 8888:localhost:8888 root@your_ECS_EIP –N”
      - Change to 8123:localhost:8888 to use local 8123 port if your local computer has port 8888 occupied
    - Go to your browser, type url “localhost:8888/lab/workspaces/<ID>”, enter
      - ID should be unique for each user in your team, you can set your own ID
      - e.g. localhost:8888/lab/workspaces/batman, localhost:8888/lab/workspaces/spiderman

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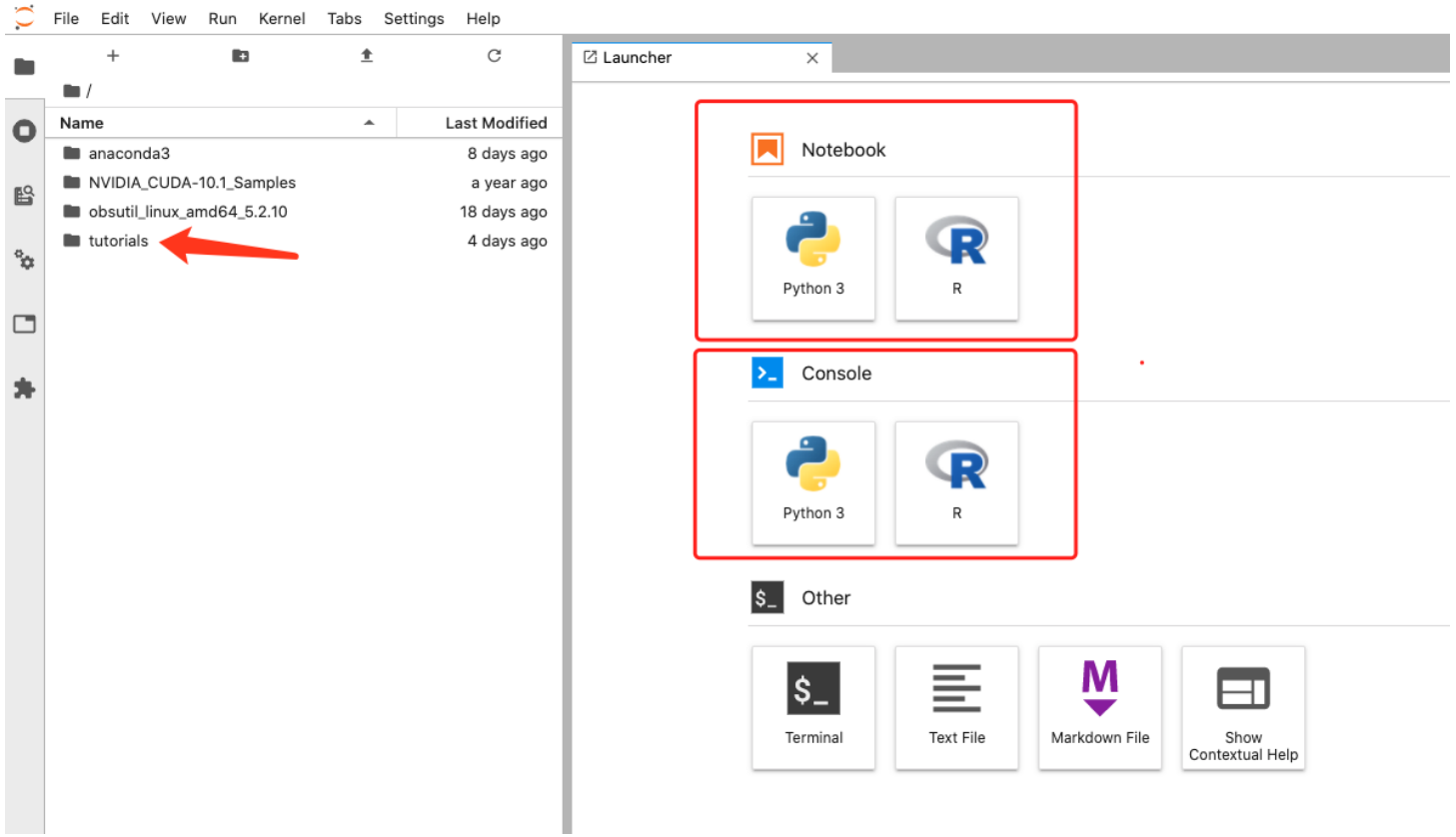
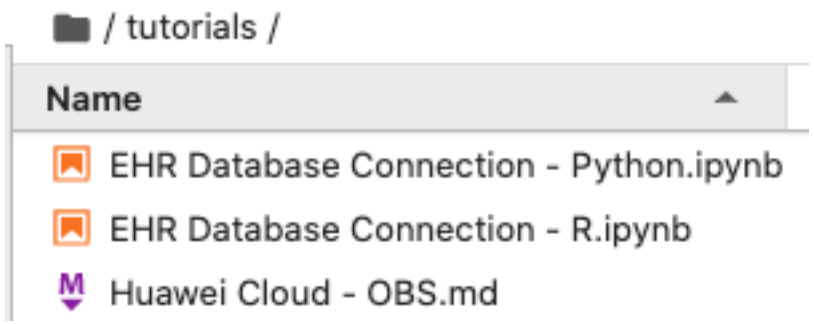
Remote Jupyter Lab





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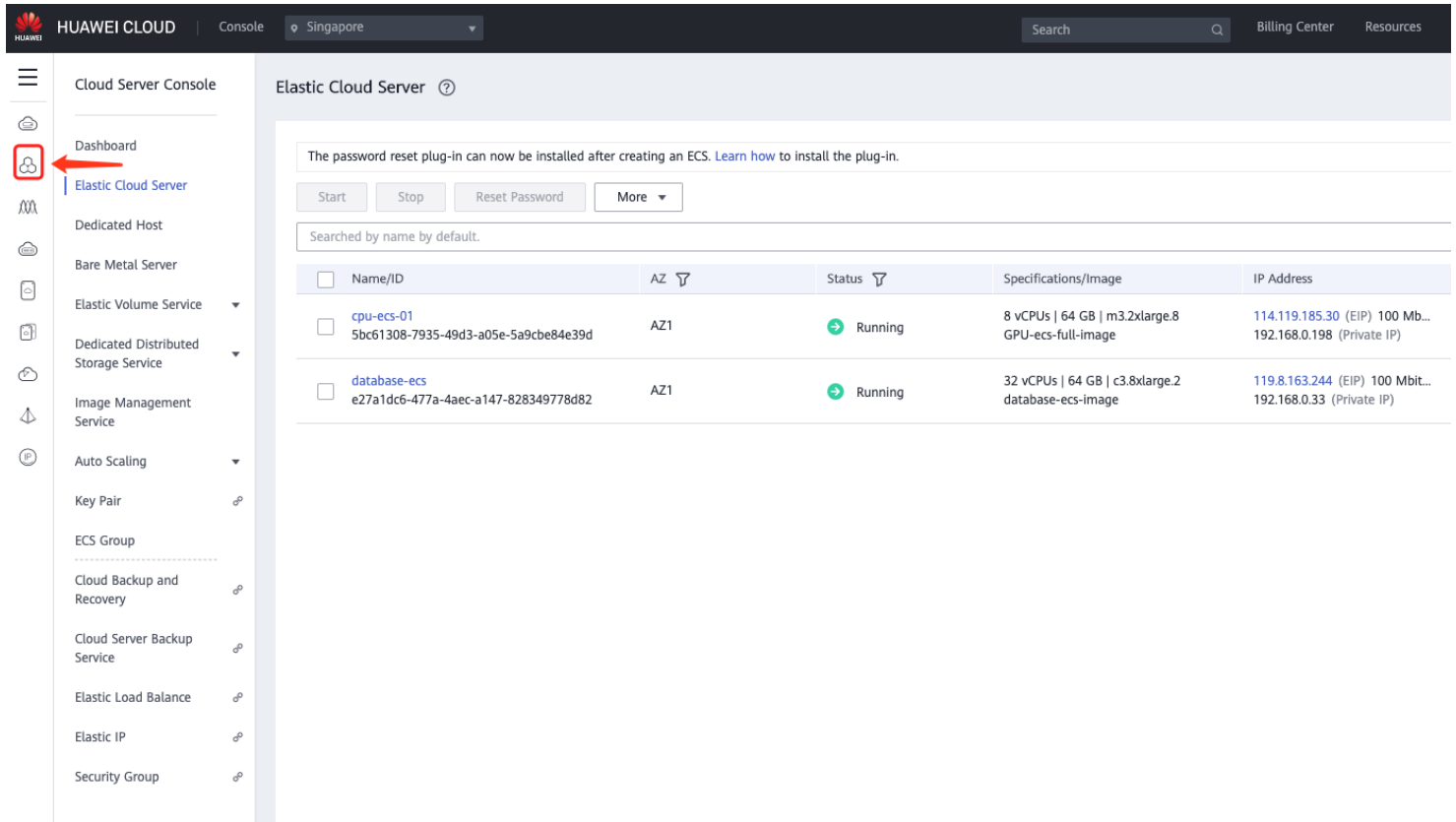
Relational Database Service (RDS)



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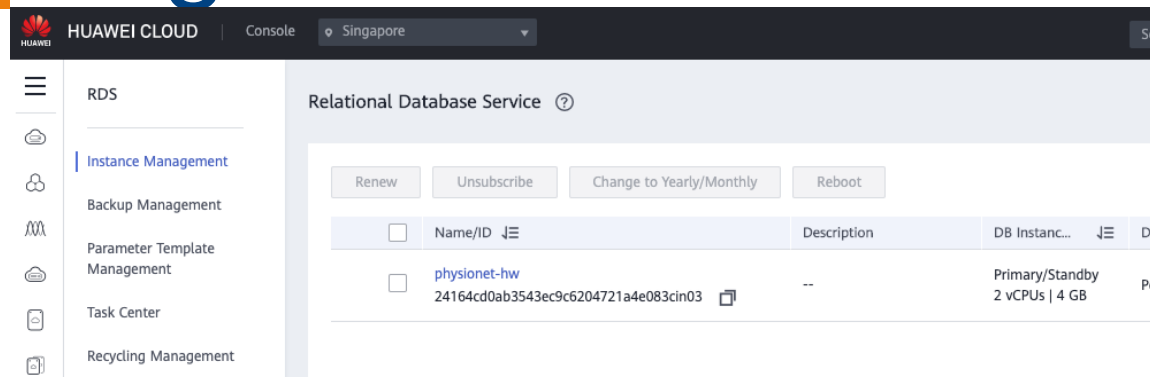
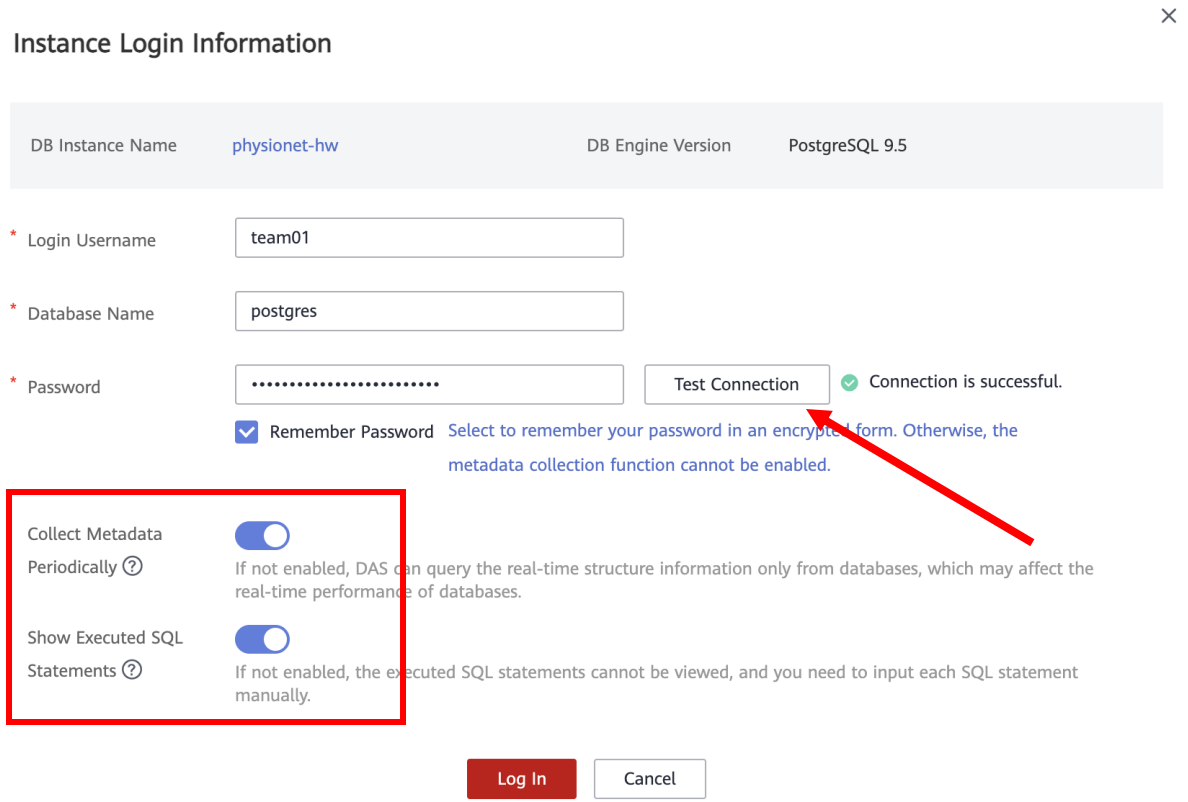
Log in to RDS





- Username: teamxx, e.g. team01
- Password of your team will be given via MS Teams

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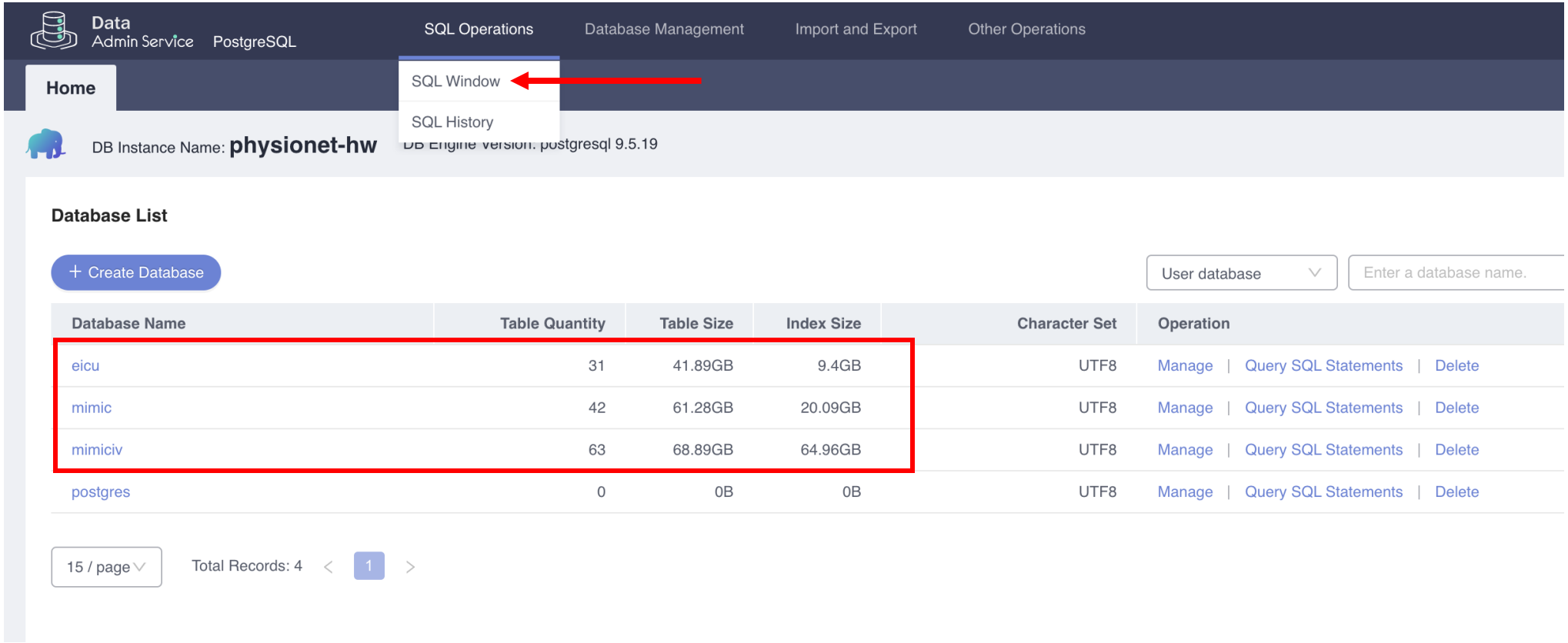
Data Admin Service (DAS)



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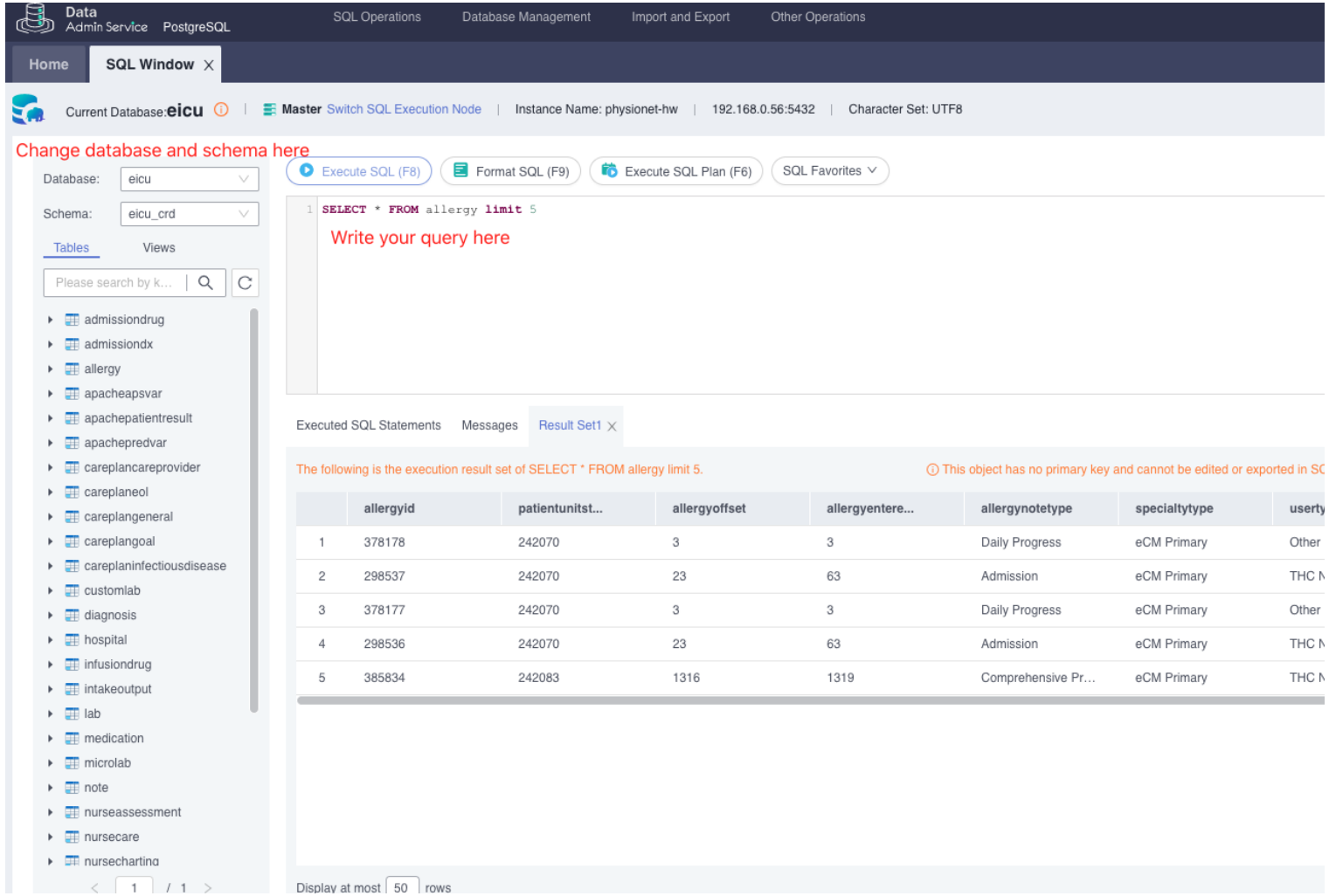
Data Admin Service (DAS)



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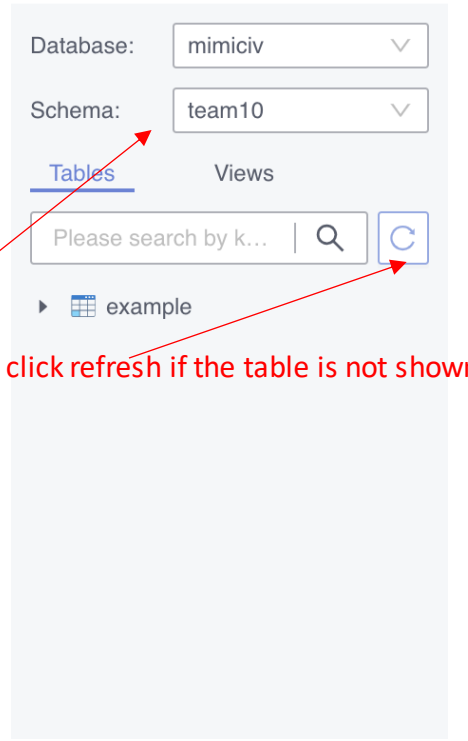
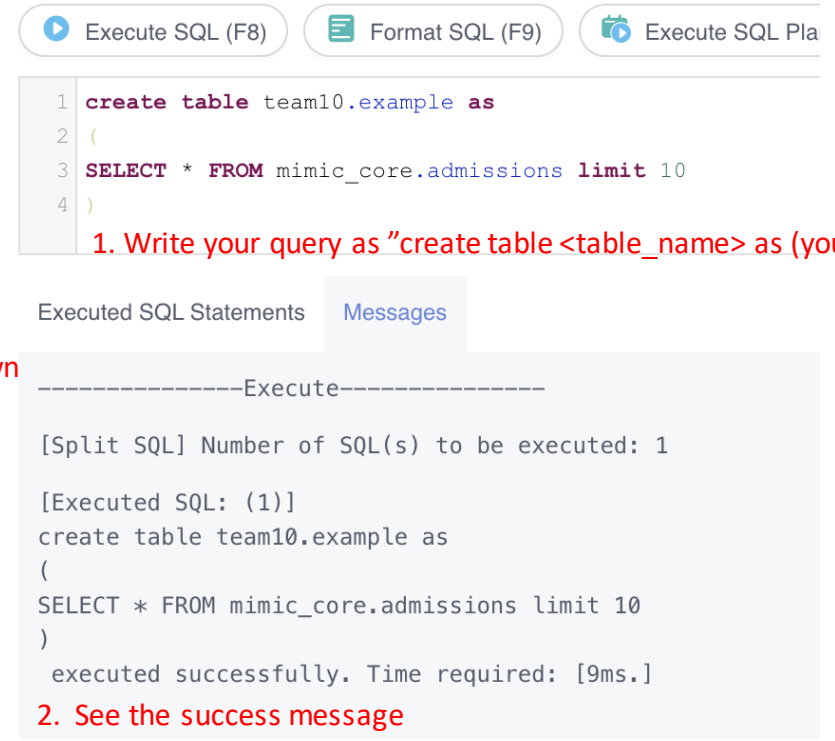
Create tables

- You might want to store your intermediate results in a table



3. Go to your team's schema, click refresh if the table is not shown



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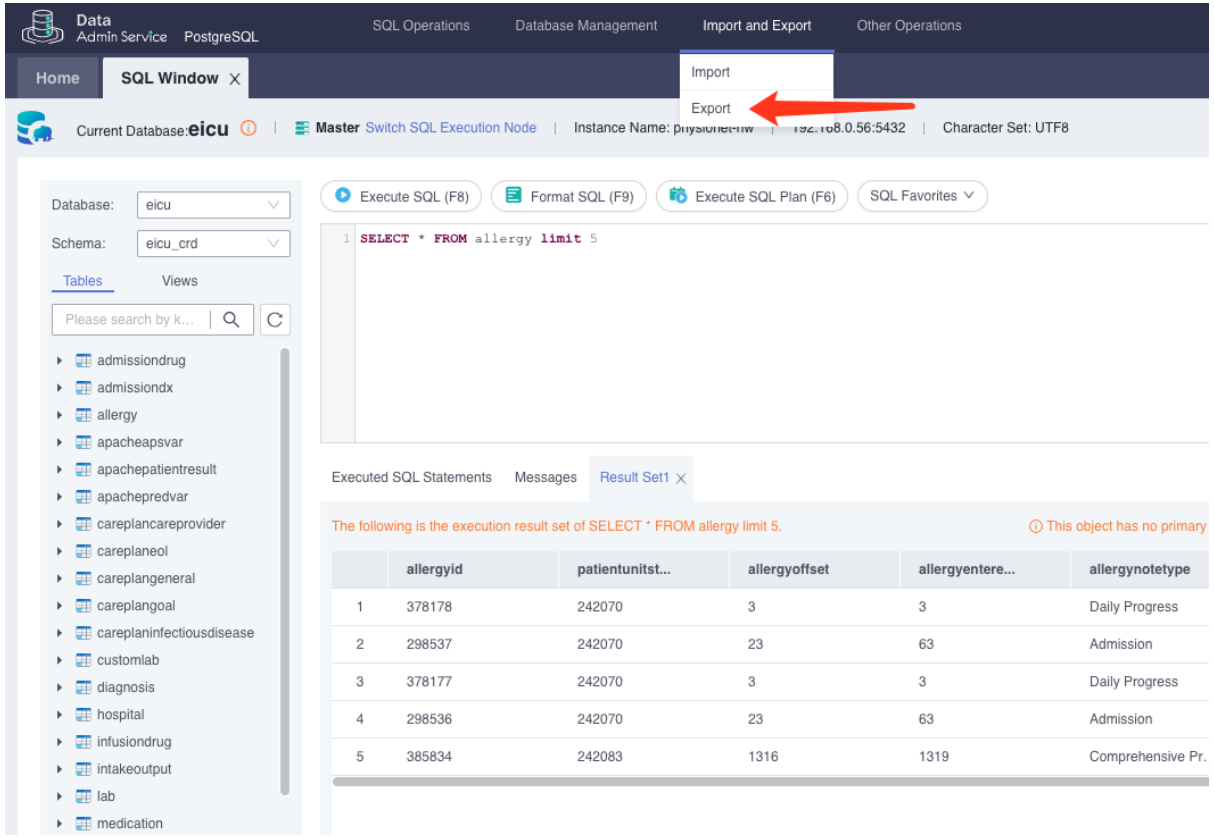
Export results to local CSV



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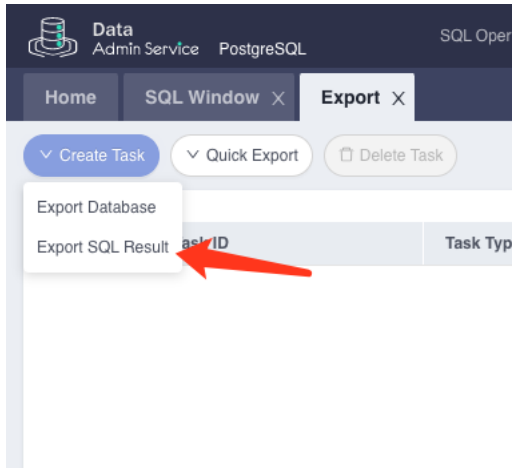
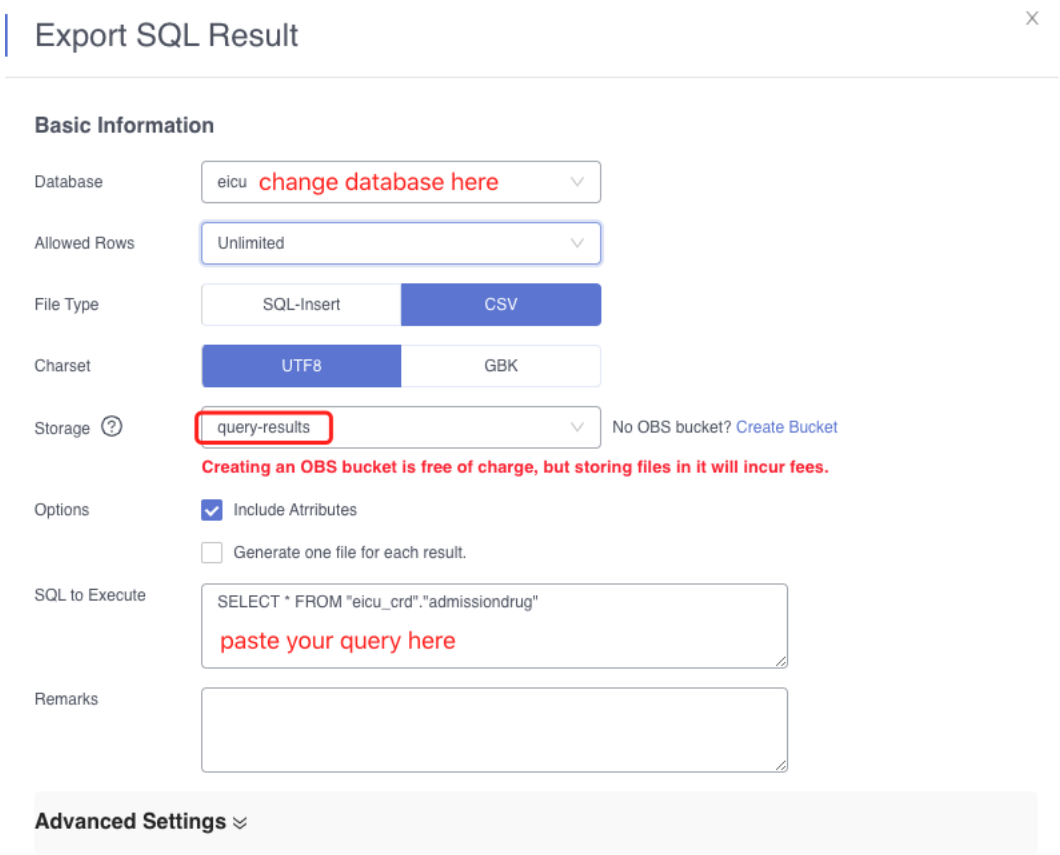
Export results to local CSV





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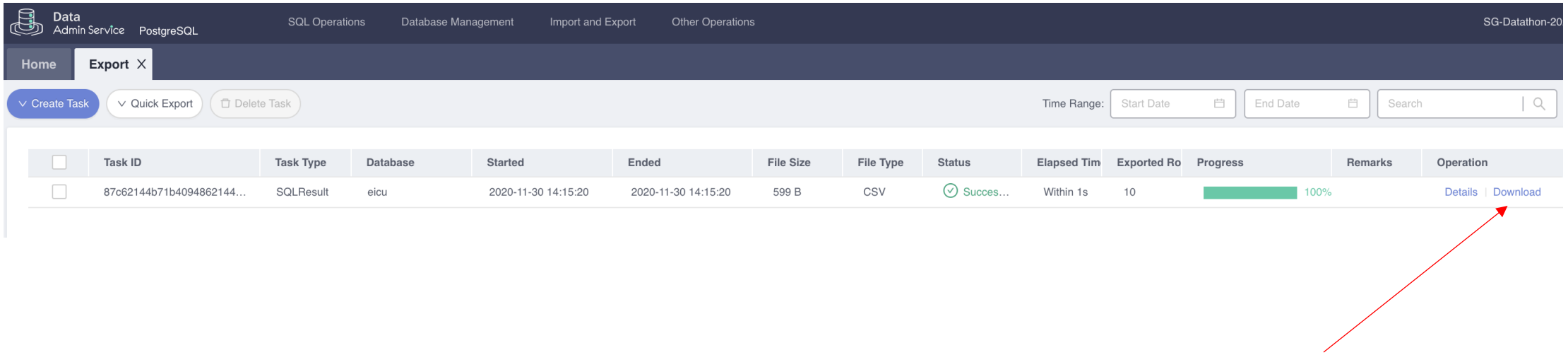
Download the result



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Suggestions

- SQL window
  - Explore the database and polish your query
- Export window
  - Copy the finished query and paste here

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Accessing the databases via local connection

- Locally / pgAdmin / etc.
  - host = 119.8.167.24
  - port = 5432
  - username = teamxx, e.g. team01
  - password = given via MS Teams

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Object Storage Service (OBS)

- For medical imaging teams: see all the available datasets

```
(conda_env) root@cpu-ecs-01:~# obsutil ls obs://datathon
Start at 2020-11-21 14:30:37.16038972 +0000 UTC

Listing objects .

Folder list:
obs://datathon/BraTS/
obs://datathon/CheXpert/
obs://datathon/ChestX-ray8/
obs://datathon/ChestX-ray8/ChestX-ray8/
obs://datathon/EMIDEC/
obs://datathon/HECKTOR challenge/
obs://datathon/MedicalSegmentationDecathlon/
obs://datathon/MedicalSegmentationDecathlon/MedicalSegmentation/
obs://datathon/RibFrac Dataset/
obs://datathon/VerSe2019/
obs://datathon/VerSe2020/
obs://datathon/autoimplant/
```

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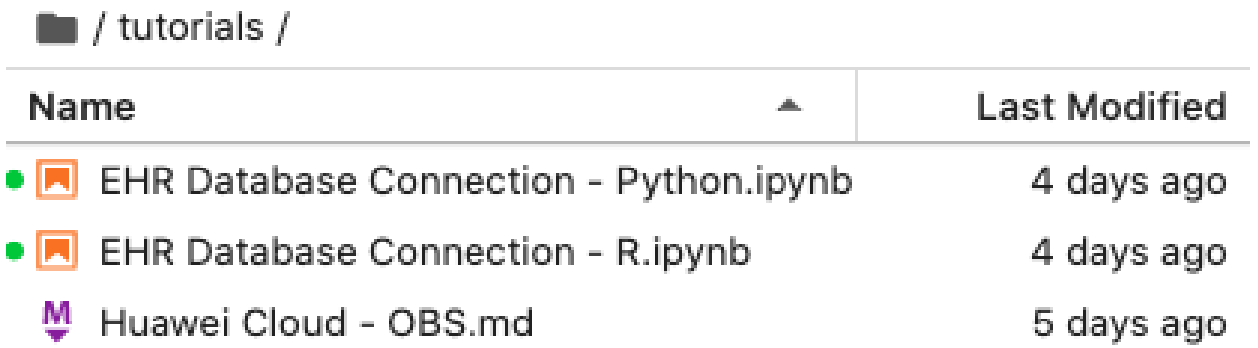
Object Storage Service (OBS)

- More about OBS: Check the OBS README



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Q&A

- If you have any questions, please feel free to contact me via MS Teams

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