Practice: Creating and Scheduling Jobs in Oracle Machine Learning

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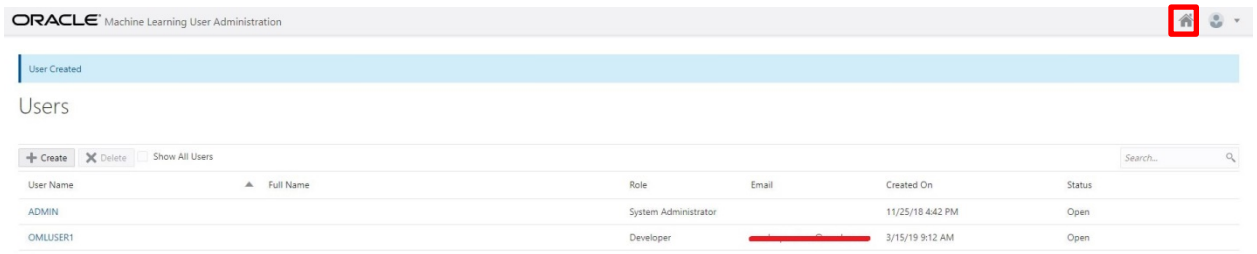
Overview

In this practice, you create and schedule a job to run in Oracle Machine Learning. First create a notebook you want to schedule to run as a job.

Tasks

1. Log into your Oracle Cloud Free Tier Account
2. Navigate to the **Oracle Autonomous Databases** home page where your instance is listed.
   a. Click your Data Warehouse instance name.
   b. Click the **Service Console** option 

   .
   c. If required, log in as the **admin** user. Here, you are signing in to the Oracle Autonomous Data Warehouse cloud console.
   d. On the left hand side menu, click **Administration**.
   e. Click Manage Oracle ML Users.
   f. If required, log in as the **admin** user. Here, you are signing in to the Oracle Machine Learning console.
   g. Click **Home** in the top-right corner, highlighted in the following screenshot:

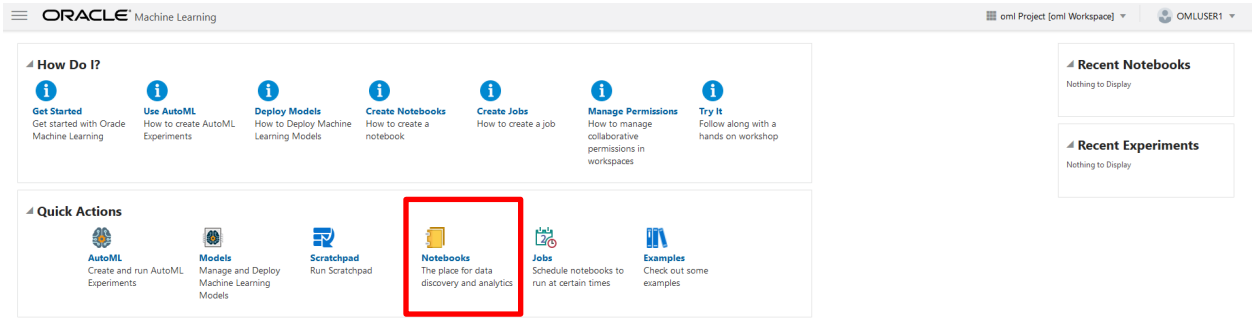


   h. Log in as the **OMLUSER1** user. This time, you are signing in to the Oracle Machine Learning console as the **OMLUSER1** user.

   After you have successfully signed in to OML, the application home page will be displayed.

i. Ensure you are in the **MyFirstproject[OMLUSER1SAMPLE]** project and workspace, which was created in the previous project.

3. On the Oracle Machine Learning home page, click **Notebooks**.



4. Create a notebook called Sales_test, as you created in Practice 5, and enter the following commands in the notebook:

Paragraph: One

```
 %sql
select count(*) from sh.sales;
```

Paragraph: Two

```
 %sql
drop table sales01;
```

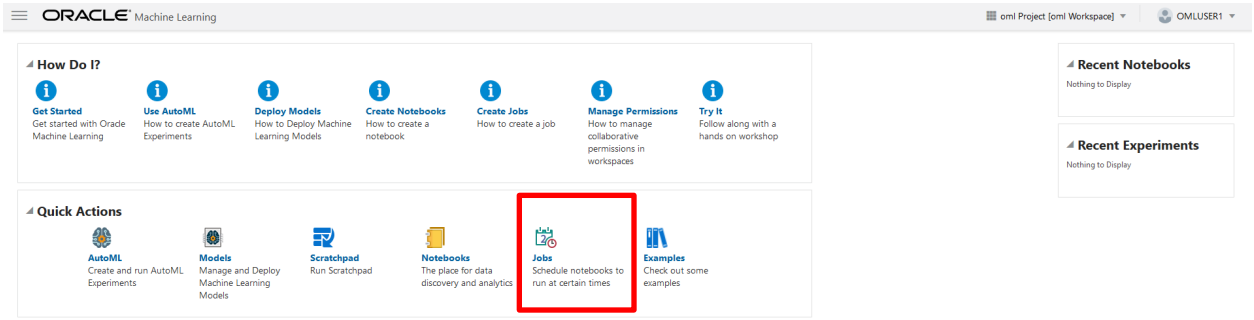
Paragraph: Three

```
 %sql
create table sales01 as select * from sh.sales;
```

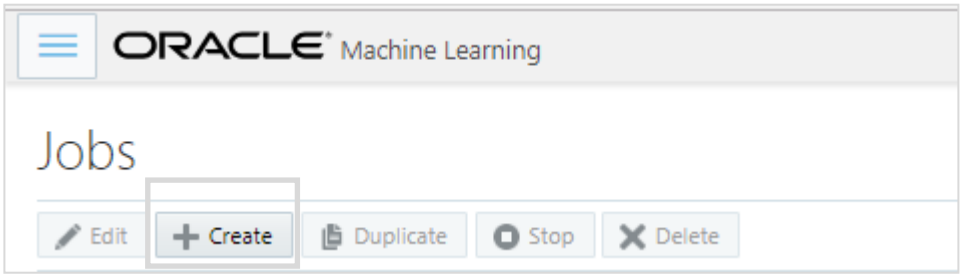
Paragraph: Four

```
%sql
select count(*) from sales01;
```

5. Click **Jobs** on the home page, or go to the **hamburger menu** on the left and select **Jobs**.



6. Click **Create**, as shown in the following screenshot. This job will create a SALES table in OMLUSER1 schema from the SH.SALES table every night to update the table with newly updated rows in the SH.SALES tables.

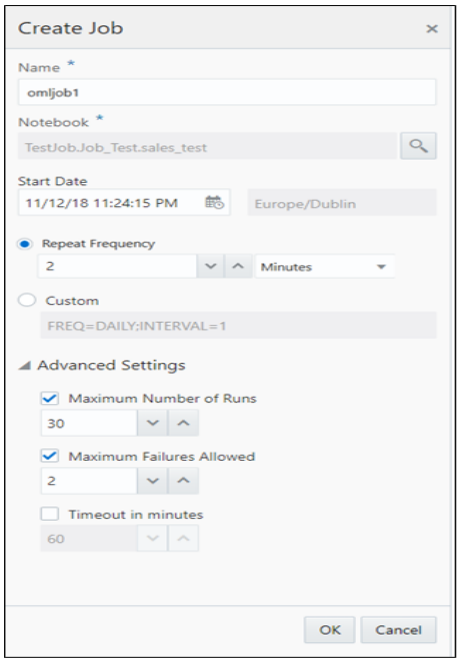


7. Enter the following details in the **Create Job** window:
   a. Name: OMLJOB1
   b. Notebook: Click the search icon, expand your workspace, select your notebook, and click **OK**. In this example, we are scheduling a notebook called Sales_test.
   c. Enter the Start Date and Time. Select the previous day as the start date and choose a time.
   d. Enter the Repeat Frequency as every **2 Minutes**. (You can choose any value)

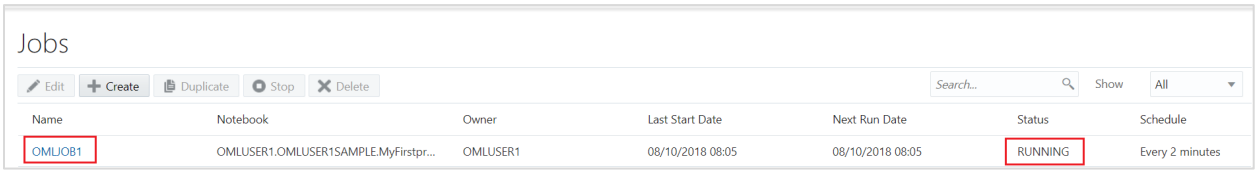
e. Click Advanced Settings and enter value 30 for Maximum Number of Runs and **2** for **Maximum Failures Allowed**. (You can choose any value)

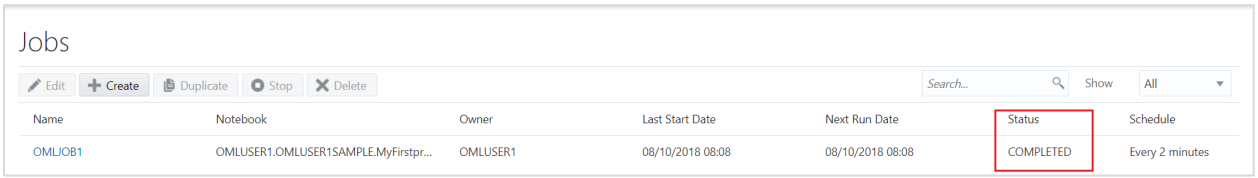
f. Finally, click **OK**.

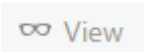
Note: You might need to refresh to see the job.

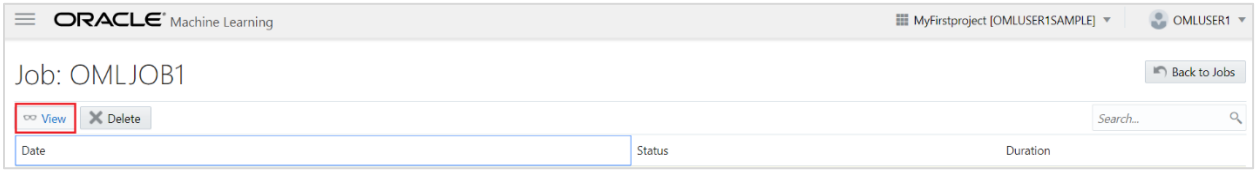


8. After the job is created, its status can be tracked. The status changes from Scheduled to Running and then to Completed, as shown below.

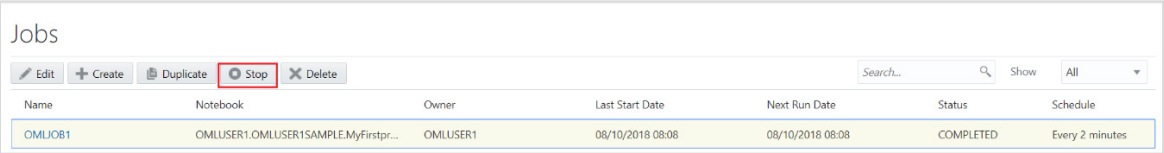




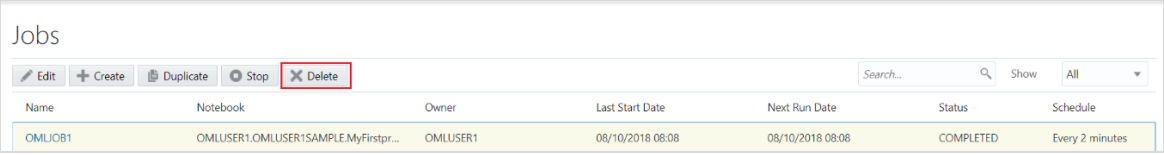
9. Click the job name. Select a row, that is a time frame, and click **View**  to get the run details and output along with the time stamp.



10. To stop a job, go back to the **Jobs** page. When the job is running, select your job (that is, select the row listing your job), click **Stop**, and then click **OK**.



11. To delete a job, go to the **Jobs** page, select your job (that is, select the row listing your job), click **Delete**, and then click **OK**.



12. Create a new notebook with the following commands. Name the notebook ***Customers_details***.

```
 %sql
select * from tab;
```

```
%sql
DROP Table CUSTOMERS01_details;
```

```
%sql
Create table CUSTOMERS01_details as SELECT a.CUST_ID,
a.CUST_GENDER, a.CUST_MARITAL_STATUS, a.CUST_YEAR_OF_BIRTH,
a.CUST_INCOME_LEVEL, a.CUST_CREDIT_LIMIT, b.EDUCATION,
b.AFFINITY_CARD, b.HOUSEHOLD_SIZE, b.OCCUPATION,
b.YRS_RESIDENCE, b.Y_BOX_GAMES
   FROM SH.CUSTOMERS a, SH.SUPPLEMENTARY_DEMOGRAPHICS b
   WHERE a.CUST_ID = b.CUST_ID;
```

```
%sql
SELECT * FROM CUSTOMERS01_details;
```

13. Create a job for another notebook and schedule it by following these steps:

    Enter the following details in the **Create Job** window:

    a. Name: OMLJOB2

    b. Notebook: Click the search icon, expand your workspace, select your notebook, and click **OK**. In this example, we are scheduling a notebook called ***Customers_details***.

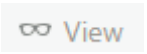
    c. Enter the Start Date and Time. Select the "previous day" as the start date and choose a time.

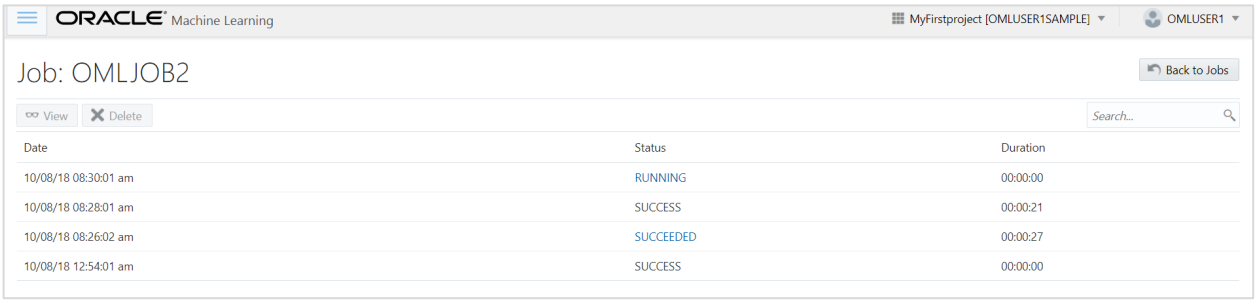
    d. Enter the Repeat Frequency as every **2 minutes**.

    e. Click Advanced Settings and enter value 30 for Maximum Number of Runs and 2 for Maximum Failures Allowed.

    f. Finally, click **OK**.

14. After the job is created, its status can be tracked. The status changes from Scheduled to Running and then to Completed.

15. Click the job name. Select a row, that is a time frame, and click **View**  to get the run details and output along with the time stamp.



This completes the practice for creating and scheduling a job to run in Oracle Machine Learning.