Practice: Creating SQL Scripts in Oracle Machine Learning

Get your free cloud account: click [here](#).

Overview

In this practice, you create SQL scripts in Oracle Machine Learning.

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** ⧉ Service Console option.

   c. If required, log in as the **admin** user.

   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** 🏠 on the top-right corner.

   h. If you had signed out, you will be prompted to log in. Log in as the **OMLUSER1** user.

   i. Ensure you are in the **MyFirstproject[OMLUSER1SAMPLE]** project and workspace, which was created in the previous project. If not, change the project using the **Select Project** menu option from the project/workspace drop-down list.
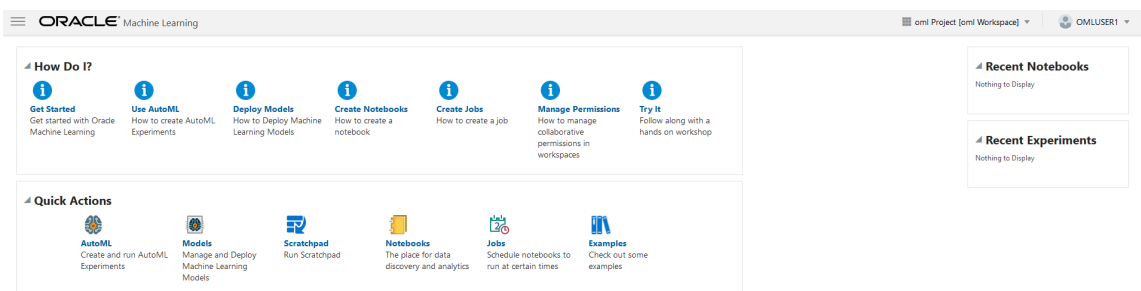
3. Click **Scratchpad**.
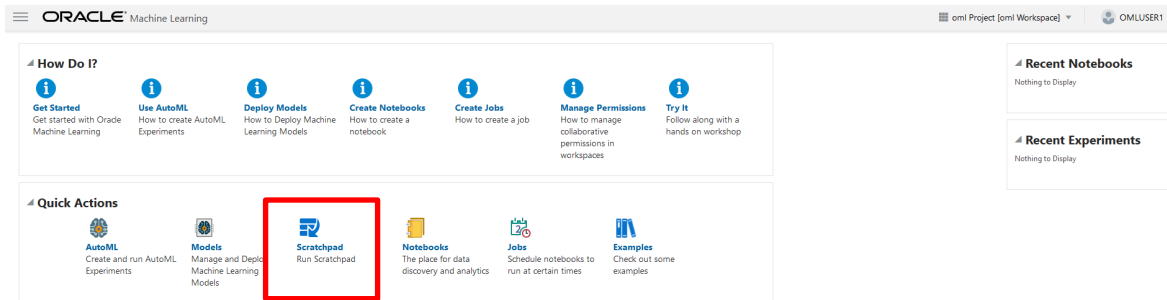
You will find the `%script` tag in the beginning of the scratchpad. Do not delete it. Let this be the first line. Copy and paste the following SQL script into the scratchpad:

```
%script
BEGIN
      EXECUTE IMMEDIATE 'DROP Table
SUPPLEMENTARY_DEMOGRAPHICS3';
   EXCEPTION
      WHEN OTHERS THEN NULL;
END;
```

4. Click **Run** next to the SQL Script Scratchpad and click **OK** in the confirmation window. The script executes and you will see the successful execution message.
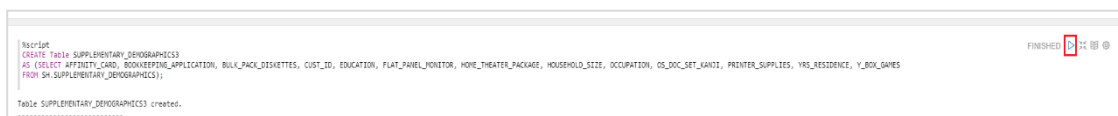
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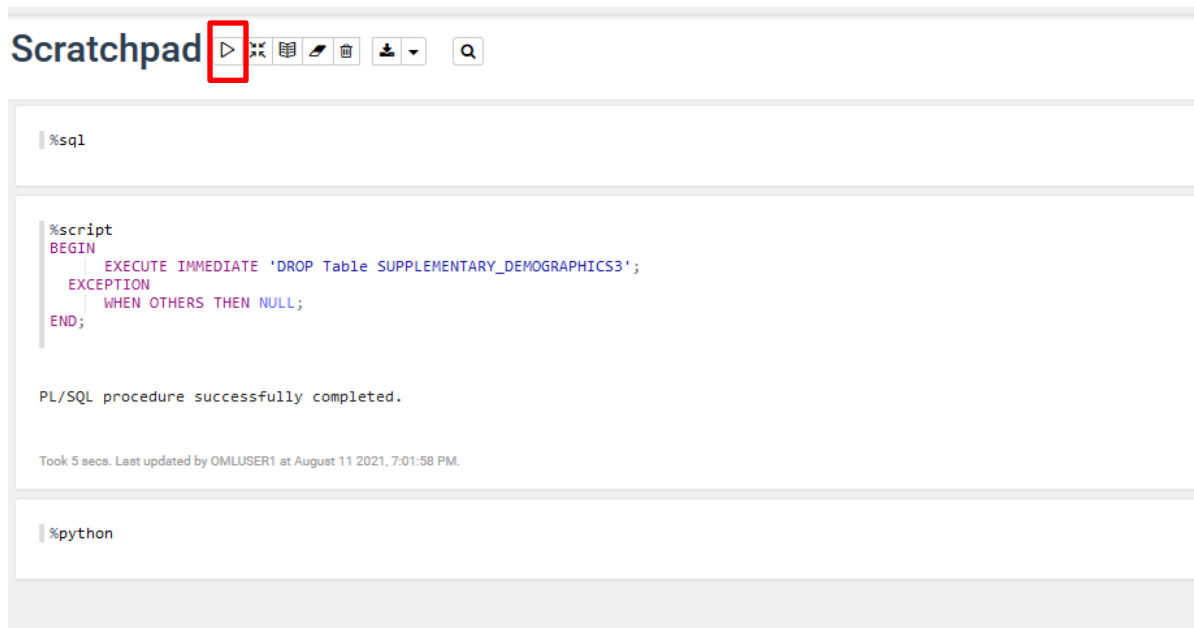
5. Copy and paste the following SQL scripts into the SQL scratchpad, run them one by one, and see the execution message.

Scripts:

a. Create the **SUPPLEMENTARY_DEMOGRAPHICS3** table:

```
%script
CREATE Table SUPPLEMENTARY_DEMOGRAPHICS3
AS (SELECT AFFINITY_CARD, BOOKKEEPING_APPLICATION,
BULK_PACK_DISKETTES, CUST_ID, EDUCATION,
FLAT_PANEL_MONITOR, HOME_THEATER_PACKAGE,
HOUSEHOLD_SIZE, OCCUPATION, OS_DOC_SET_KANJI,
PRINTER_SUPPLIES, YRS_RESIDENCE, Y_BOX_GAMES
FROM SH.SUPPLEMENTARY_DEMOGRAPHICS);
```

```
%script
CREATE Table SUPPLEMENTARY_DEMOGRAPHICS3                                                                                                       FINISHED  ▷  :: ⊞ ⚙
AS (SELECT AFFINITY_CARD, BOOKKEEPING_APPLICATION, BULK_PACK_DISKETTES, CUST_ID, EDUCATION, FLAT_PANEL_MONITOR, HOME_THEATER_PACKAGE, HOUSEHOLD_SIZE, OCCUPATION, OS_DOC_SET_KANJI, PRINTER_SUPPLIES, YRS_RESIDENCE, Y_BOX_GAMES
FROM SH.SUPPLEMENTARY_DEMOGRAPHICS);

Table SUPPLEMENTARY_DEMOGRAPHICS3 created.
---------------------------
```
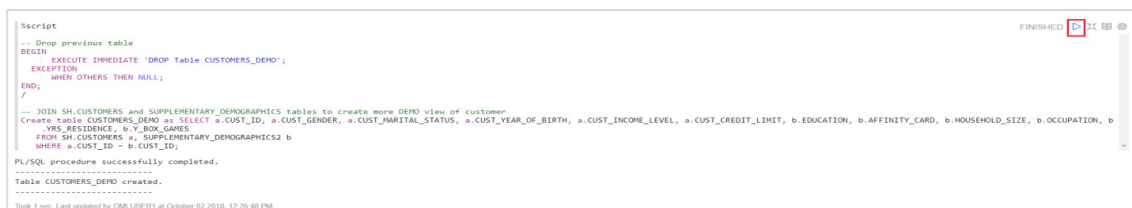
b. Create the **CUSTOMERS_DEMO** table:

```
%script
-- Drop previous table
BEGIN
        EXECUTE IMMEDIATE 'DROP Table
CUSTOMERS_DEMO';
   EXCEPTION
        WHEN OTHERS THEN NULL;
END;
 /
```

```
-- JOIN SH.CUSTOMERS and SUPPLEMENTARY_DEMOGRAPHICS tables to
create more DEMO view of customer
Create table CUSTOMERS_DEMO 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, SUPPLEMENTARY_DEMOGRAPHICS3
b
    WHERE a.CUST_ID = b.CUST_ID;
```

```
%script
-- Drop previous table                                                                                                                        FINISHED  ▷  :: ⊞ ⚙
BEGIN
      EXECUTE IMMEDIATE 'DROP Table CUSTOMERS_DEMO';
  EXCEPTION
      WHEN OTHERS THEN NULL;
END;
/
-- JOIN SH.CUSTOMERS and SUPPLEMENTARY_DEMOGRAPHICS tables to create more DEMO view of customer
Create table CUSTOMERS_DEMO 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, SUPPLEMENTARY_DEMOGRAPHICS2 b
   WHERE a.CUST_ID = b.CUST_ID;

PL/SQL procedure successfully completed.
---------------------------
Table CUSTOMERS_DEMO created.
---------------------------
Took 1 sec. Last updated by OMLUSER1 at October 02 2018, 12:26:48 PM.
```

c. Create the View for Sales Transactional data:

```
%script
CREATE VIEW sales_trans_cust AS
SELECT DISTINCT cust_id, prod_name, prod_category
FROM (SELECT a.cust_id, b.prod_name, b.prod_category
        FROM SH.sales a, SH.products b
      WHERE a.prod_id = b.prod_id AND
            a.cust_id between 100001 AND 104500);
```

```
%script
CREATE VIEW sales_trans_cust AS
SELECT DISTINCT cust_id, prod_name, prod_category
FROM (SELECT a.cust_id, b.prod_name, b.prod_category
        FROM SH.sales a, SH.products b
      WHERE a.prod_id = b.prod_id AND
            a.cust_id between 100001 AND 104500);

View SALES_TRANS_CUST created.
```

d. Drop and clean the Sample Settings table:

```
%script
BEGIN
    EXECUTE IMMEDIATE 'DROP Table ar_sh_sample_settings';
  EXCEPTION
    WHEN OTHERS THEN NULL;
  END;
```

```
%script
BEGIN
    EXECUTE IMMEDIATE 'DROP Table ar_sh_sample_settings';
  EXCEPTION
    WHEN OTHERS THEN NULL;
  END;

PL/SQL procedure successfully completed.
Took 0 sec. Last updated by OMLUSER1 at October 02 2018, 1:22:51 PM
```

e. Create the Sample Settings table:
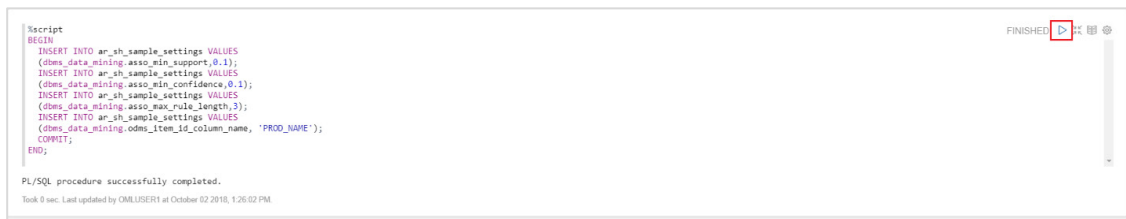
```
%script
CREATE TABLE ar_sh_sample_settings (
  setting_name  VARCHAR2(30),
  setting_value VARCHAR2(4000));
```

```
%script
CREATE TABLE ar_sh_sample_settings (
  setting_name  VARCHAR2(30),
  setting_value VARCHAR2(4000));

Table AR_SH_SAMPLE_SETTINGS created.
```

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f. Develop the Model Settings:

```
%script
BEGIN
  INSERT INTO ar_sh_sample_settings VALUES
  (dbms_data_mining.asso_min_support,0.1);
  INSERT INTO ar_sh_sample_settings VALUES
  (dbms_data_mining.asso_min_confidence,0.1);
  INSERT INTO ar_sh_sample_settings VALUES
  (dbms_data_mining.asso_max_rule_length,3);
  INSERT INTO ar_sh_sample_settings VALUES
  (dbms_data_mining.odms_item_id_column_name,
'PROD_NAME');
  COMMIT;
END;
```


6. SQL scripts can be saved on your system as a `.json` file by clicking the **Export the notebook** option.
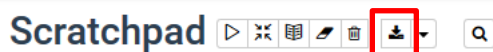
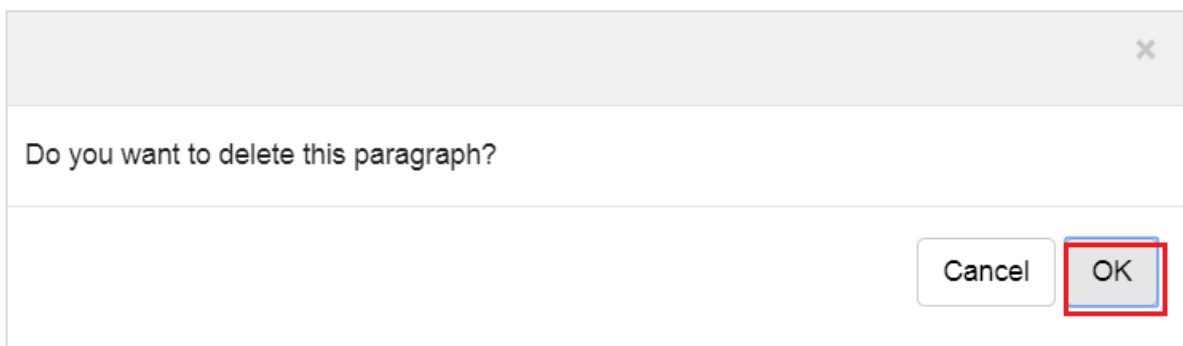a. Open the downloaded .json file and check the script.

7. You can clear the output by clicking ⚙ at the right corner.

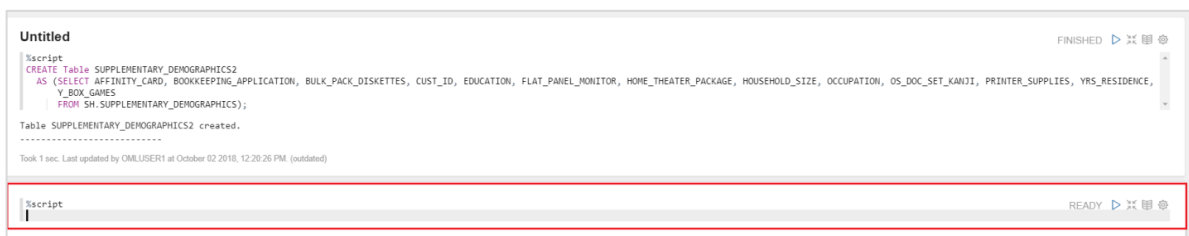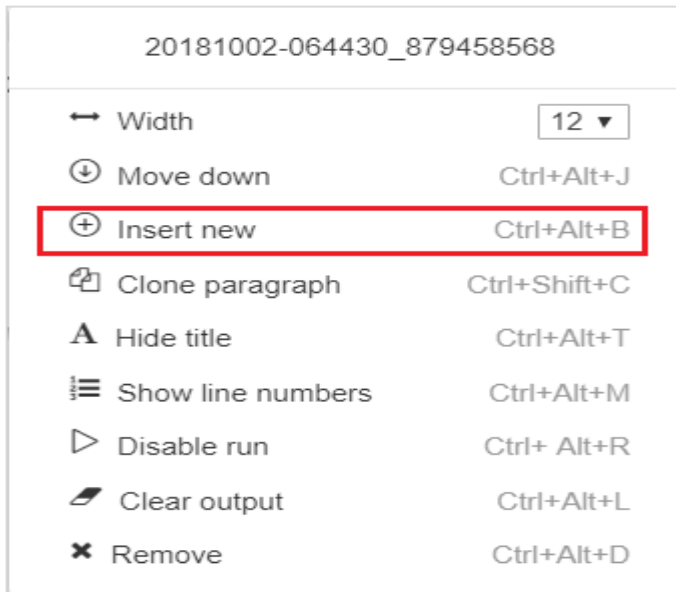8. To remove the particular paragraph, click **Remove**.
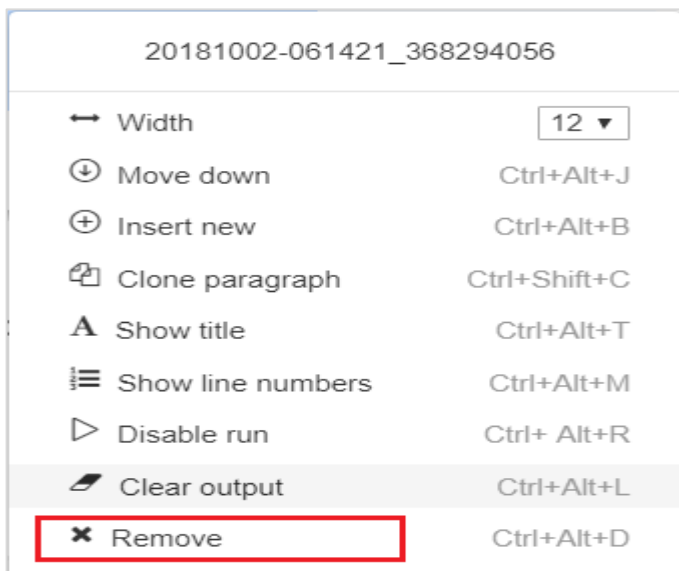
9. Click **OK** to confirm the paragraph deletion.

10. After you click **OK**, it will automatically delete and save it.

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11. To create a new paragraph, click **Insert new** as shown below.

The New paragraph has been created successfully.

12. To delete all the paragraphs, click **Clear notebook** as shown below.

All the paragraphs have been deleted successfully.

This completes the practice for creating SQL scripts in Oracle Machine Learning.