

Sri Lanka Institute of Information Technology



Assignment – 2023

Database System Administration

IE2010

IT22365200 – RANGANA WIJESINGHE

12/02/2023

Part B

1. Log in to the Oracle server using sqlplus.

```
Administrator: Command Prompt - sqlplus / as sysdba
Microsoft Windows [Version 10.0.19045.3324]
(c) Microsoft Corporation. All rights reserved.

C:\Users\DSA_IT22365200>sqlplus / as sysdba

SQL*Plus: Release 12.1.0.2.0 Production on Sat Dec 2 14:31:12 2023

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Connected to:
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options

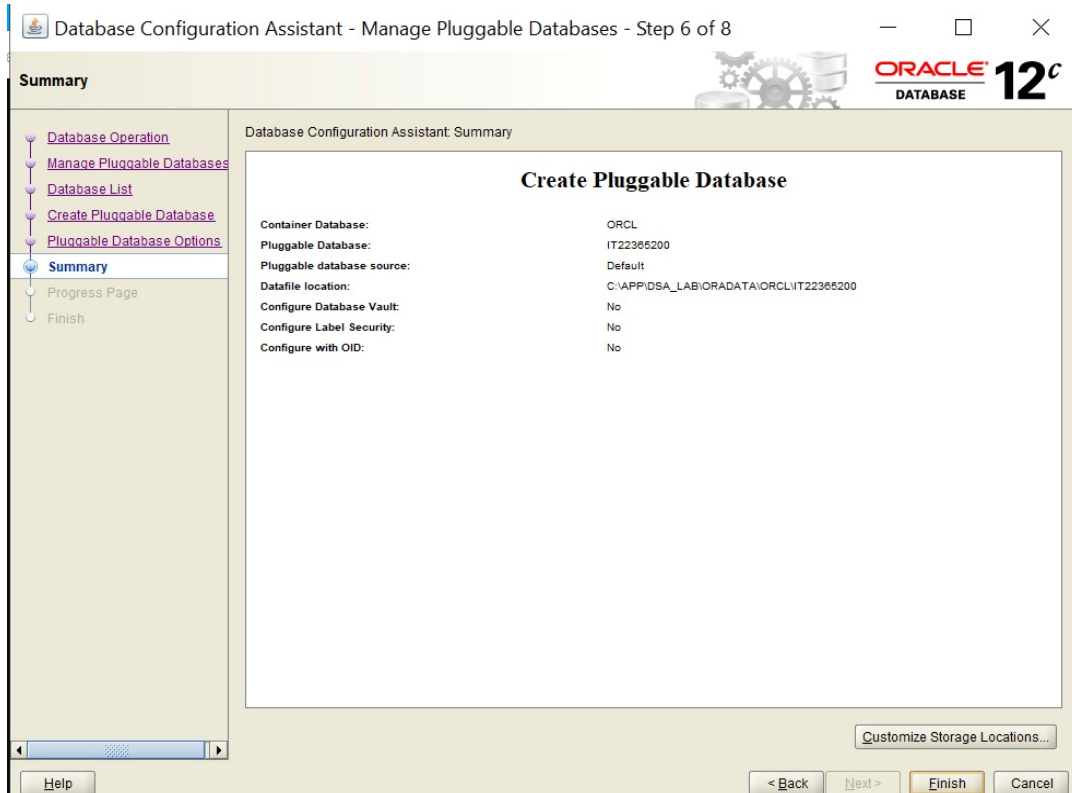
SQL> show pdbs;

  CON_ID CON_NAME              OPEN MODE  RESTRICTED
-----
      2 PDB$SEED                READ ONLY  NO
      3 PDBORCL                MOUNTED
      4 IT22365200              READ WRITE NO

SQL> alter session set container=IT22365200;

Session altered.
```

2. Run DBCA utility provided by Oracle to create a new pluggable database.



Part C

1. Create a profile.

C:\> Administrator: Command Prompt - sqlplus / as sysdba

```
SQL> CREATE PROFILE Accountant1 LIMIT
 2 SESSIONS_PER_USER UNLIMITED
 3 CPU_PER_SESSION UNLIMITED
 4 CPU_PER_CALL 3000
 5 CONNECT_TIME 40
 6 logical_READS_PER_SESSION DEFAULT
 7 LOGICAL_READS_PER_CALL 1000
 8 PRIVATE_SGA 25K
 9 COMPOSITE_LIMIT 5000000
10 FAILED_LOGIN_ATTEMPTS 3
11 PASSWORD_LIFE_TIME 180
12 PASSWORD_REUSE_TIME 30
13 PASSWORD_REUSE_MAX 7
14 PASSWORD_LOCK_TIME 1/24
15 PASSWORD_GRACE_TIME 7
16 PASSWORD_VERIFY_FUNCTION NULL;
```

Profile created.

2. Create default table space.

```
SQL> create tablespace Maleesha1TS
 2 DATAFILE 'Maleesha1_perm.dat'
 3 SIZE 100M
 4 REUSE
 5 AUTOEXTEND ON NEXT 10M MAXSIZE 200M;
```

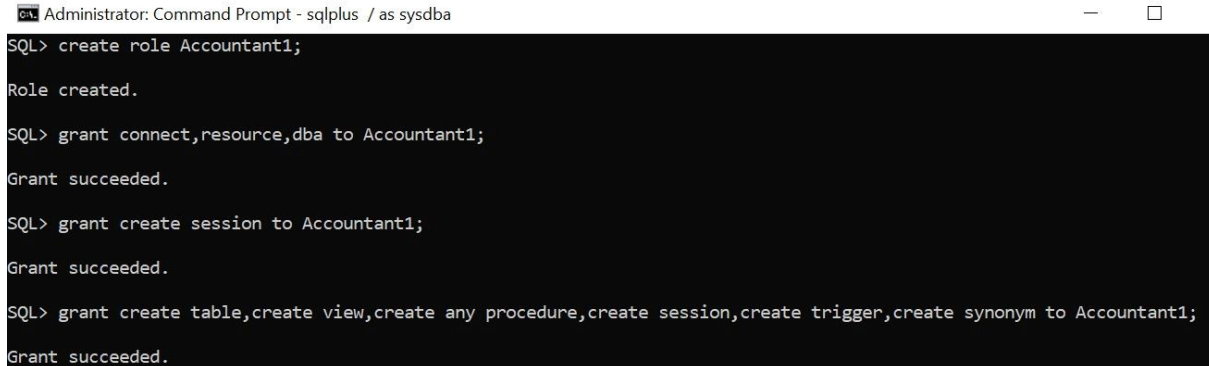
Tablespace created.

3. Create temporary table space

```
SQL> create temporary tablespace Maleesha1TEMP
  2  TEMPFILE 'Maleesha1_temp.dbf'
  3  SIZE 10M
  4  AUTOEXTEND ON;

Tablespace created.
```

4. Create role.



```
Administrator: Command Prompt - sqlplus / as sysdba
SQL> create role Accountant1;

Role created.

SQL> grant connect,resource,dba to Accountant1;

Grant succeeded.

SQL> grant create session to Accountant1;

Grant succeeded.

SQL> grant create table,create view,create any procedure,create session,create trigger,create synonym to Accountant1;

Grant succeeded.
```

5. Create user

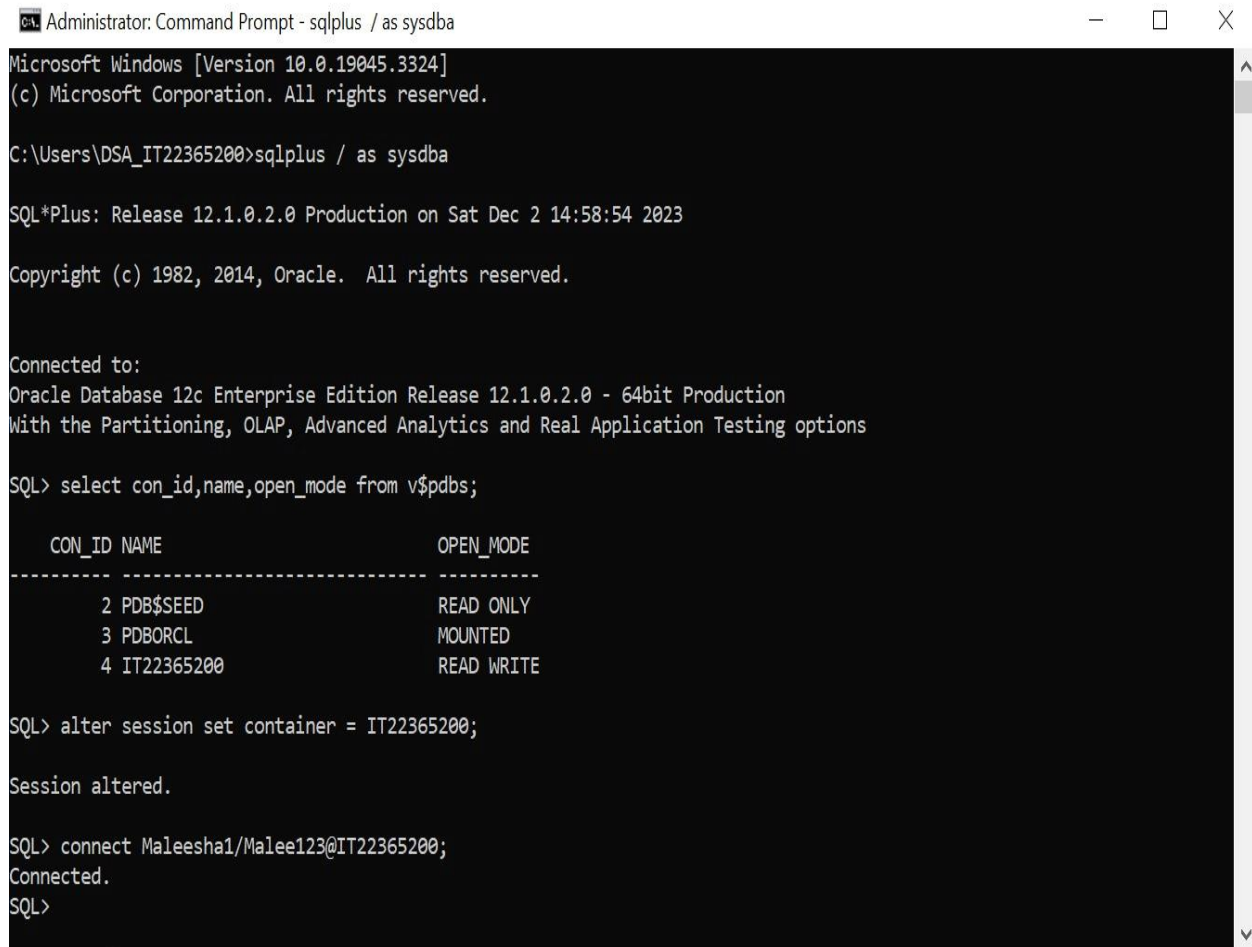
```
SQL>
SQL> CREATE USER Maleesha1 IDENTIFIED BY Malee123
  2  DEFAULT TABLESPACE Maleesha1TS
  3  TEMPORARY TABLESPACE Maleesha1TEMP
  4  QUOTA 50M ON Maleesha1TS
  5  PROFILE Accountant1;

User created.

SQL> grant Accountant1 to Maleesha1;

Grant succeeded.
```

6. Connect to the user account.



```
Administrator: Command Prompt - sqlplus / as sysdba
Microsoft Windows [Version 10.0.19045.3324]
(c) Microsoft Corporation. All rights reserved.

C:\Users\DSA_IT22365200>sqlplus / as sysdba

SQL*Plus: Release 12.1.0.2.0 Production on Sat Dec 2 14:58:54 2023

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Connected to:
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options

SQL> select con_id,name,open_mode from v$pdb;

  CON_ID NAME                OPEN_MODE
-----
      2 PDB$SEED              READ ONLY
      3 PDBORCL                MOUNTED
      4 IT22365200             READ WRITE

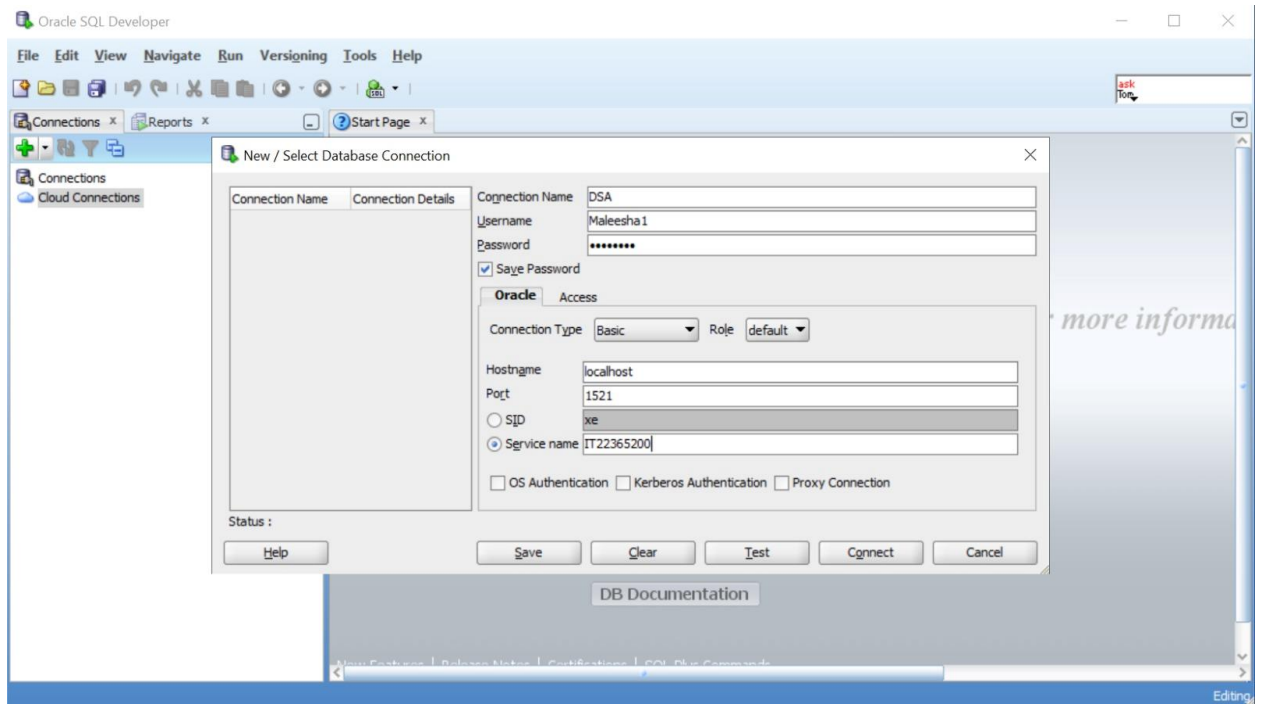
SQL> alter session set container = IT22365200;

Session altered.

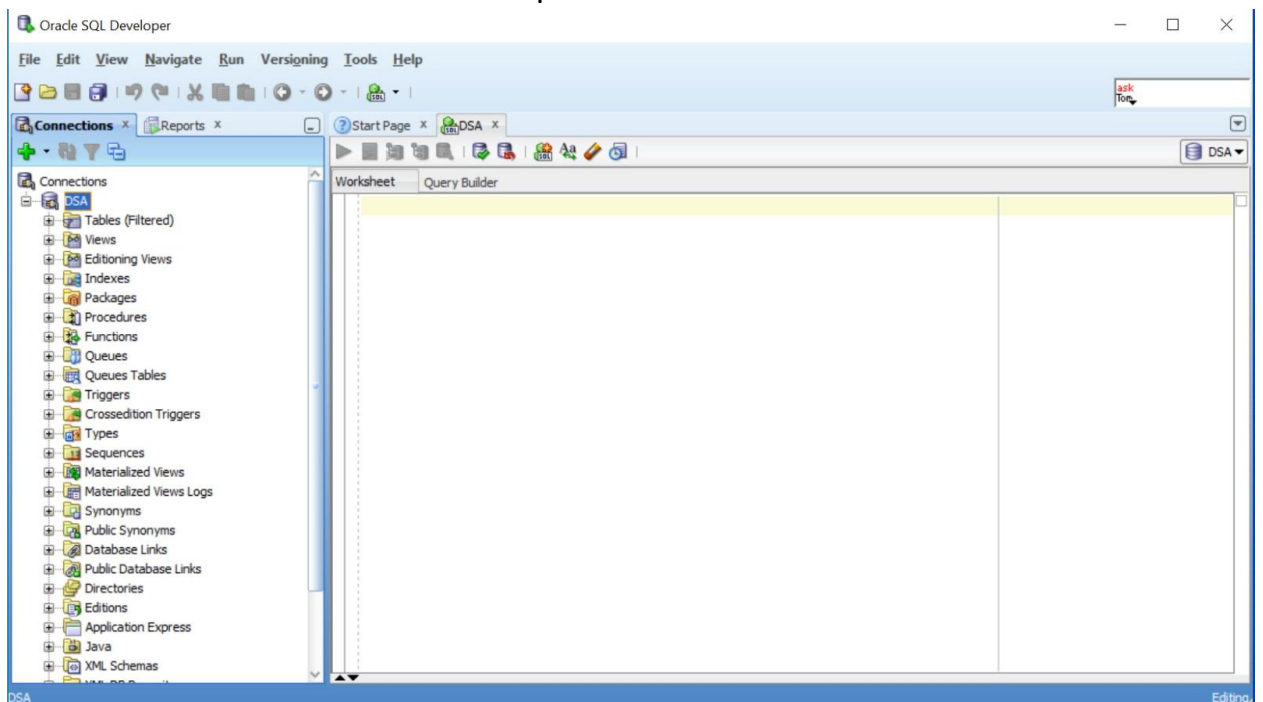
SQL> connect Maleesha1/Malee123@IT22365200;
Connected.
SQL>
```

Part D

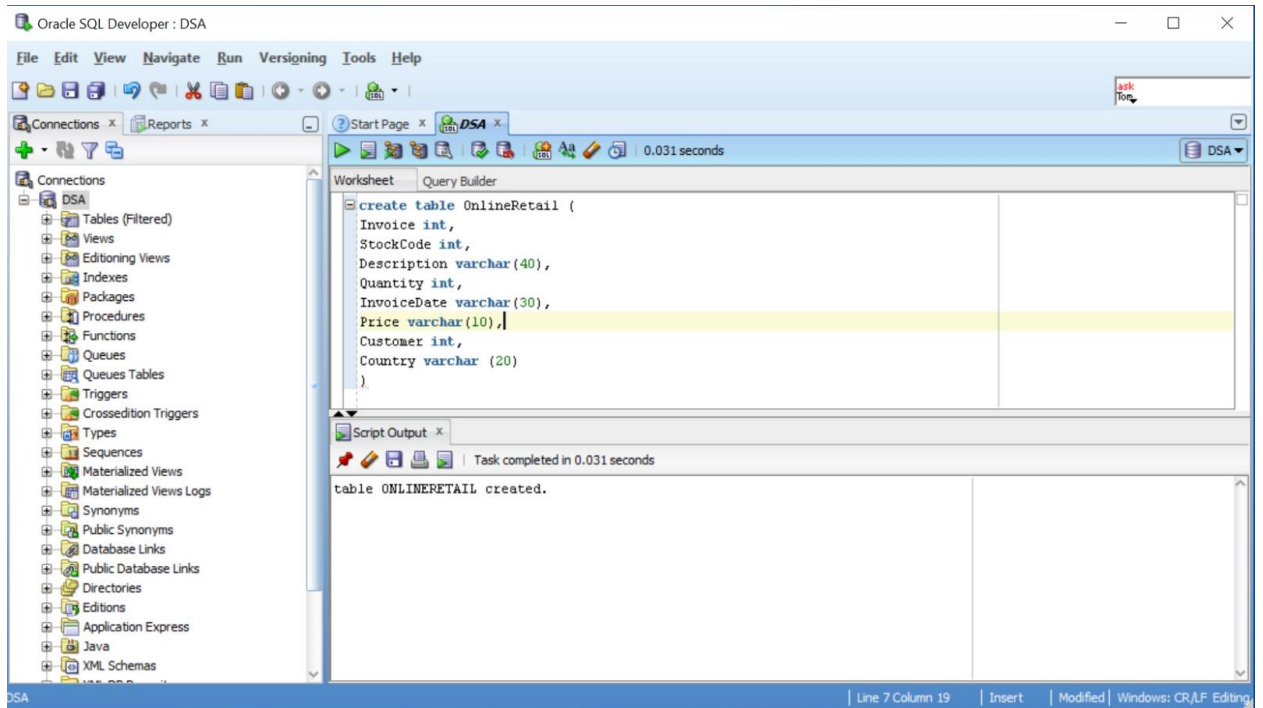
1. Create Database connection in SQL developer.



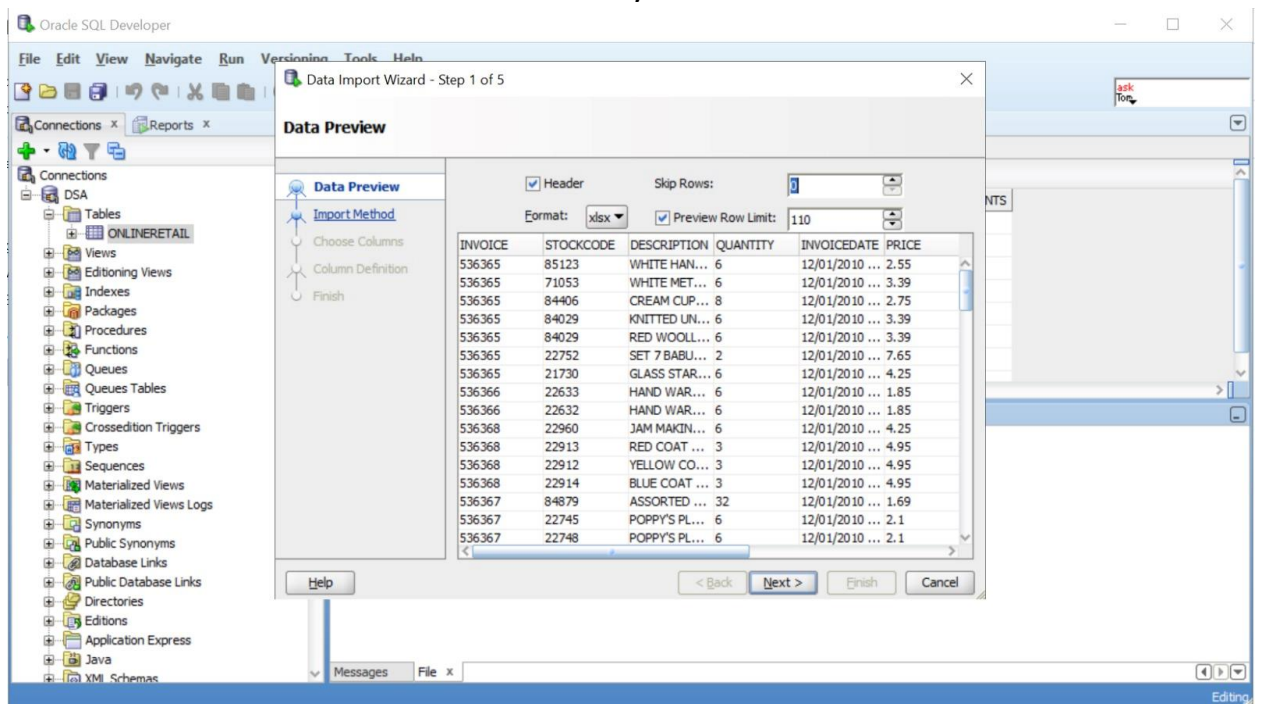
2. Check whether the user created in part C is available in the users list



3. Create a new table to save the "OnlineRetail" dataset.



4. Load the OnlineRetail data into the newly created table.



4.1 After importing Data file.

The screenshot shows the Oracle SQL Developer interface. The left pane displays the database schema with the 'ONLINERETAIL' table selected. The table structure is as follows:

| Column | Data Type |
|-------------|-------------|
| StockCode | int |
| Description | varchar(40) |
| Quantity | int |
| InvoiceDate | varchar(30) |
| Price | varchar(10) |
| Customer_ID | int |
| Country | varchar(20) |

The main pane shows a SQL query: `SELECT * FROM OnlineRetail;`. The 'Script Output' pane displays the results of the query, showing 50 rows of data. The data is as follows:

| INVOICE | STOCKCODE | DESCRIPTION | QUANTITY | INVOICEDATE | PRICE | CUSTOMER_ID | COUNTRY |
|---------|-----------|---|----------|------------------|-------|-------------|----------------|
| 1 | 536365 | 85123 WHITE HANGING HEART T-LIGHT HOLDER | 6 | 12/01/2010 08:26 | 2.55 | 17850 | United Kingdom |
| 2 | 536365 | 71053 WHITE METAL LANTERN | 6 | 12/01/2010 08:26 | 3.39 | 17850 | United Kingdom |
| 3 | 536365 | 84406 CREAM CUPID HEARTS COAT HANGER | 8 | 12/01/2010 08:26 | 2.75 | 17850 | United Kingdom |
| 4 | 536365 | 84029 KNITTED UNION FLAG HOT WATER BOTTLE | 6 | 12/01/2010 08:26 | 3.39 | 17850 | United Kingdom |
| 5 | 536365 | 84029 RED WOOLLY HOTTIE WHITE HEART. | 6 | 12/01/2010 08:26 | 3.39 | 17850 | United Kingdom |
| 6 | 536365 | 22752 SET 7 BABUSHKA NESTING BOXES | 2 | 12/01/2010 08:26 | 7.65 | 17850 | United Kingdom |
| 7 | 536365 | 21730 GLASS STAR FROSTED T-LIGHT HOLDER | 6 | 12/01/2010 08:26 | 4.25 | 17850 | United Kingdom |
| 8 | 536366 | 22633 HAND WARMER UNION JACK | 6 | 12/01/2010 08:28 | 1.85 | 17850 | United Kingdom |
| 9 | 536366 | 22632 HAND WARMER RED POLKA DOT | 6 | 12/01/2010 08:28 | 1.85 | 17850 | United Kingdom |
| 10 | 536368 | 22960 JAM MAKING SET WITH JARS | 6 | 12/01/2010 08:34 | 4.25 | 13047 | United Kingdom |

5. . Create an index to the table based on the "Price" column in the data sheet.

The screenshot shows the Oracle SQL Developer interface. The left pane displays the database schema with the 'ONLINERETAIL' table selected. The table structure is as follows:

| Column | Data Type |
|-------------|-------------|
| StockCode | int |
| Description | varchar(40) |
| Quantity | int |
| InvoiceDate | varchar(30) |
| Price | varchar(10) |
| Customer_ID | int |
| Country | varchar(20) |

The main pane shows a SQL query: `SELECT * FROM OnlineRetail;` and `CREATE INDEX price_IX ON OnlineRetail(price);`. The 'Script Output' pane displays the results of the query, showing 50 rows of data. The data is as follows:

| INVOICE | STOCKCODE | DESCRIPTION | QUANTITY | INVOICEDATE | PRICE | CUSTOMER_ID | COUNTRY |
|---------|-----------|---|----------|------------------|-------|-------------|----------------|
| 1 | 536365 | 85123 WHITE HANGING HEART T-LIGHT HOLDER | 6 | 12/01/2010 08:26 | 2.55 | 17850 | United Kingdom |
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| 6 | 536365 | 22752 SET 7 BABUSHKA NESTING BOXES | 2 | 12/01/2010 08:26 | 7.65 | 17850 | United Kingdom |
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| 9 | 536366 | 22632 HAND WARMER RED POLKA DOT | 6 | 12/01/2010 08:28 | 1.85 | 17850 | United Kingdom |
| 10 | 536368 | 22960 JAM MAKING SET WITH JARS | 6 | 12/01/2010 08:34 | 4.25 | 13047 | United Kingdom |