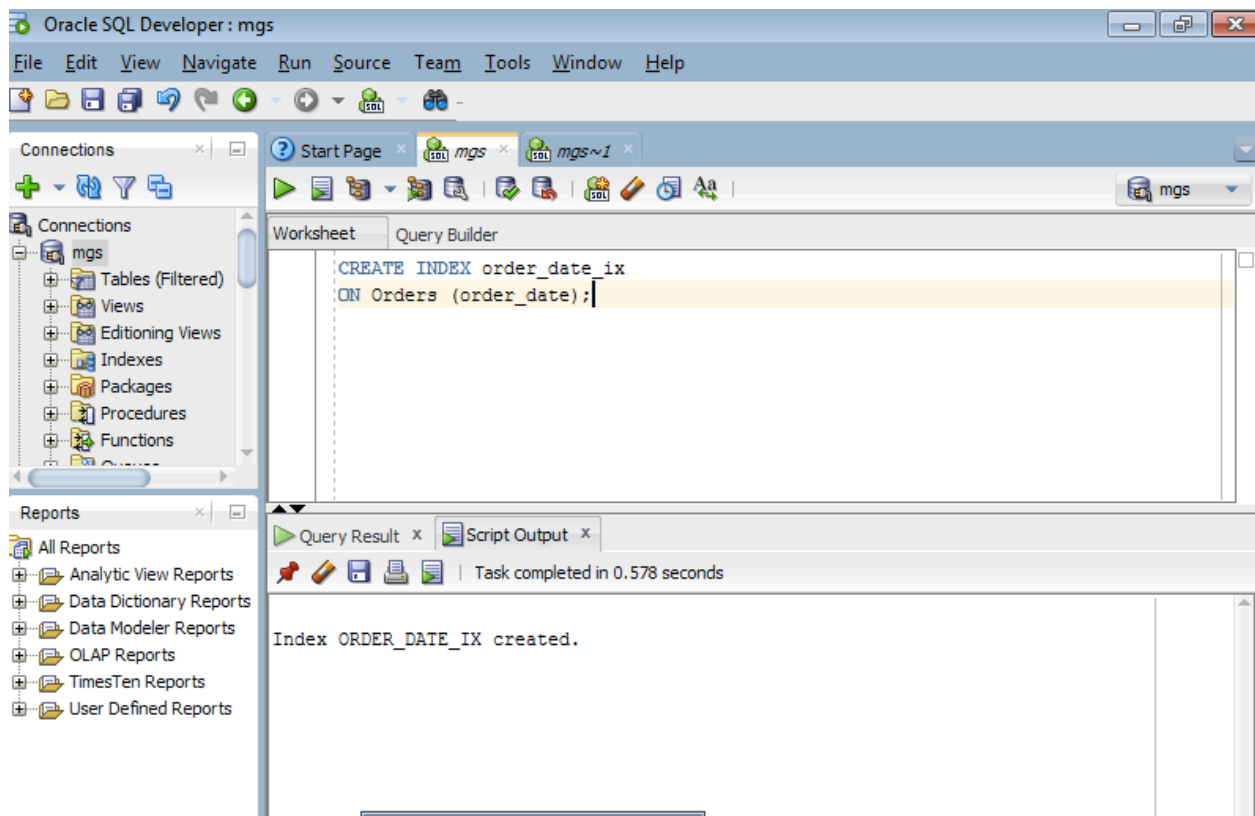


Assignment 5

Chapter 10:

1.

```
CREATE INDEX order_date_ix  
ON Orders (order_date);
```



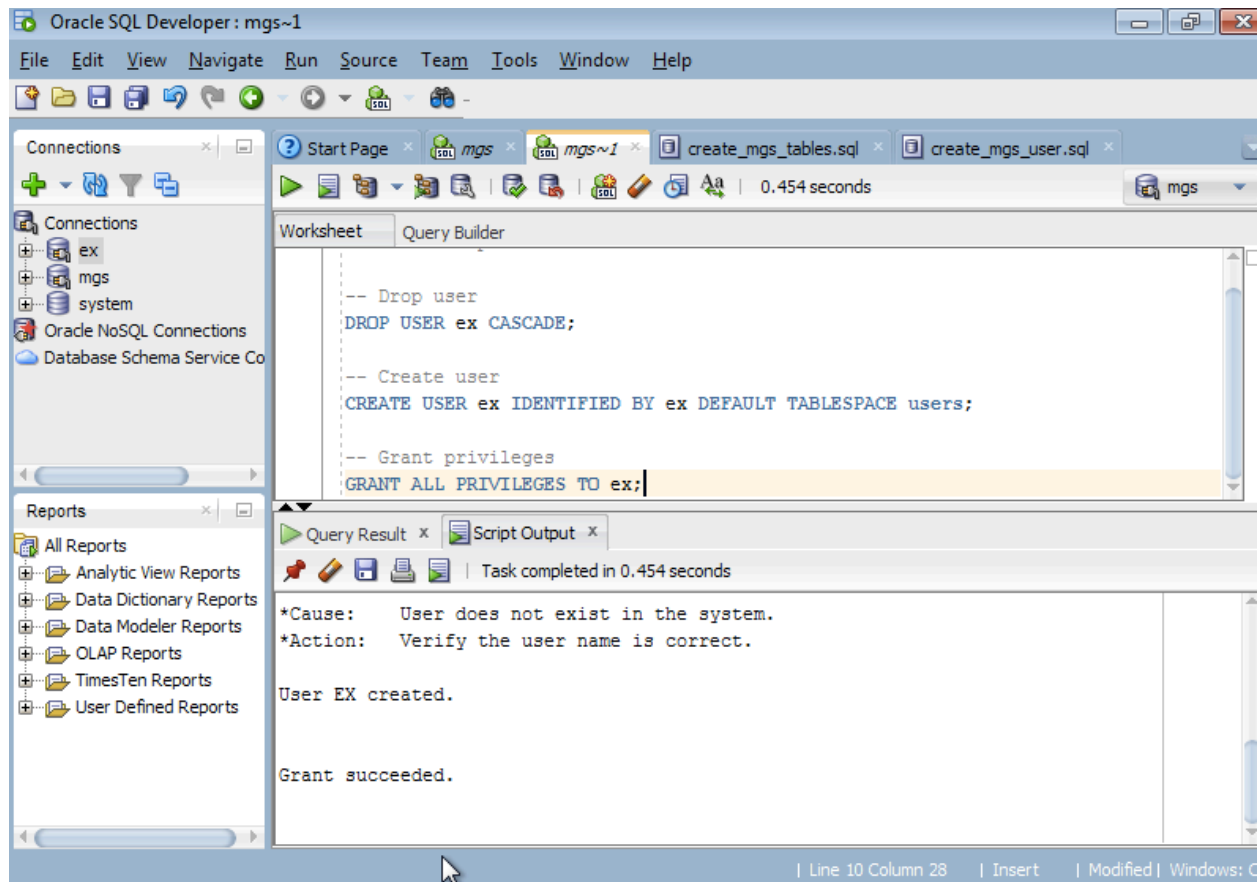
2.

-- This script creates the user named ex

DROP USER ex CASCADE;

CREATE USER ex IDENTIFIED BY ex DEFAULT TABLESPACE users;

GRANT ALL PRIVILEGES TO ex;



```
CONNECT ex/ex;
```

```
CREATE TABLE users
```

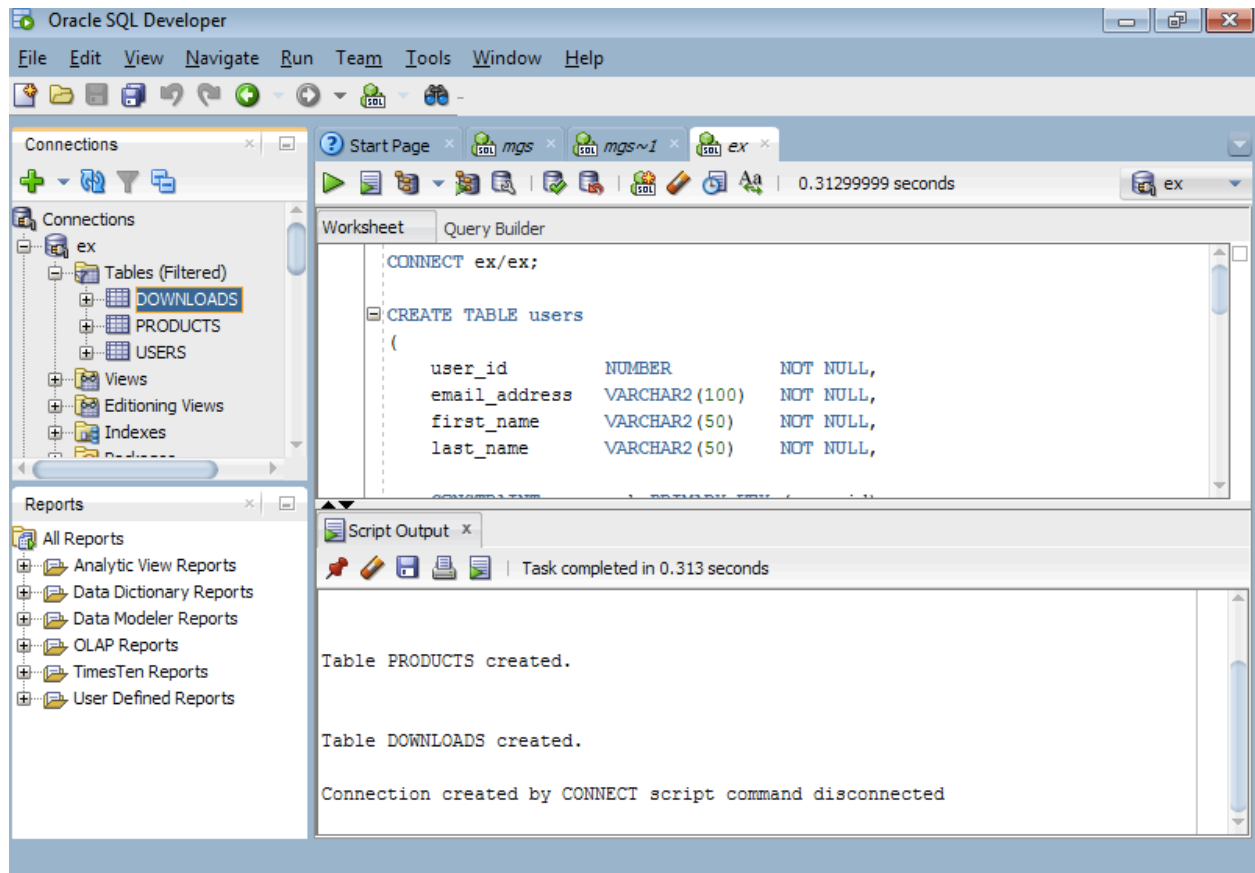
```
(  
  user_id    NUMBER    NOT NULL,  
  email_address VARCHAR2(100) NOT NULL,  
  first_name  VARCHAR2(50) NOT NULL,  
  last_name   VARCHAR2(50) NOT NULL,  
  
  CONSTRAINT users_pk PRIMARY KEY (user_id)  
);
```

```
CREATE TABLE products
```

```
(  
  product_id    NUMBER    NOT NULL,  
  product_name   VARCHAR2(100) NOT NULL,  
  
  CONSTRAINT product_pk PRIMARY KEY (product_id)  
);
```

```
CREATE TABLE downloads
```

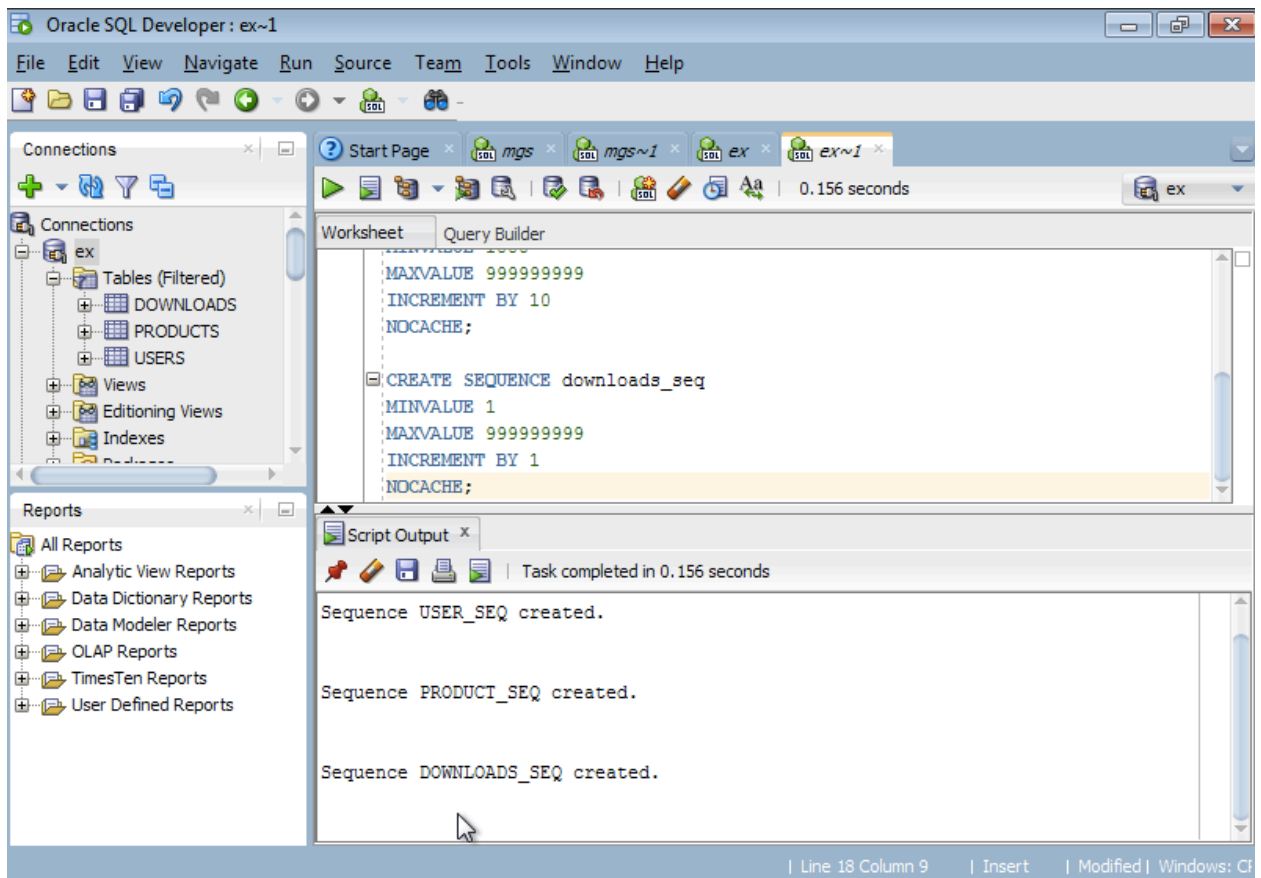
```
(  
  download_id  NUMBER    NOT NULL,  
  user_id      NUMBER    NOT NULL,  
  download_date DATE      NOT NULL,  
  file_name    VARCHAR2(100) NOT NULL,  
  product_id   NUMBER    NOT NULL,  
  
  CONSTRAINT downloads_pk PRIMARY KEY (download_id),  
  
  CONSTRAINT downloads_fk1 FOREIGN KEY (user_id)  
    REFERENCES users(user_id),  
  
  CONSTRAINT downloads_fk2 FOREIGN KEY (product_id)  
    REFERENCES products (product_id)  
);
```



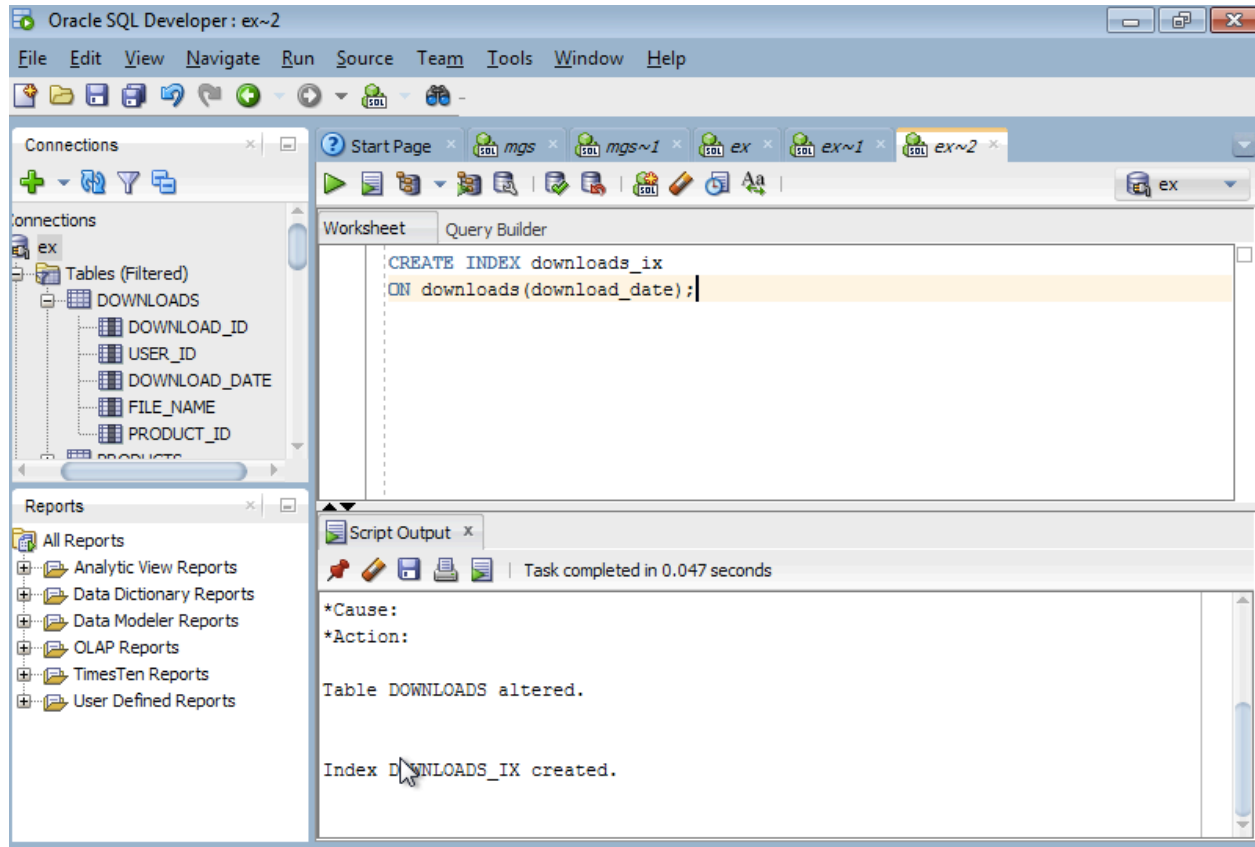
```
CREATE SEQUENCE user_seq  
MINVALUE 10000  
MAXVALUE 999999999  
INCREMENT BY 1  
NOCACHE;
```

```
CREATE SEQUENCE product_seq  
MINVALUE 1000  
MAXVALUE 999999999  
INCREMENT BY 10  
NOCACHE;
```

```
CREATE SEQUENCE downloads_seq  
MINVALUE 1  
MAXVALUE 999999999  
INCREMENT BY 1  
NOCACHE;
```



```
CREATE INDEX downloads_ix  
ON downloads(download_date);
```



3.

```
INSERT INTO USERS (USER_ID, EMAIL_ADDRESS, FIRST_NAME, LAST_NAME)
VALUES
(
  USER_SEQ.NEXTVAL, 'johnsmith@gmail.com', 'John', 'Smith'
);
```

```
INSERT INTO USERS (USER_ID, EMAIL_ADDRESS, FIRST_NAME, LAST_NAME)
VALUES
(
  USER_SEQ.NEXTVAL, 'janedoe@gmail.com', 'Jane', 'Doe'
);
```

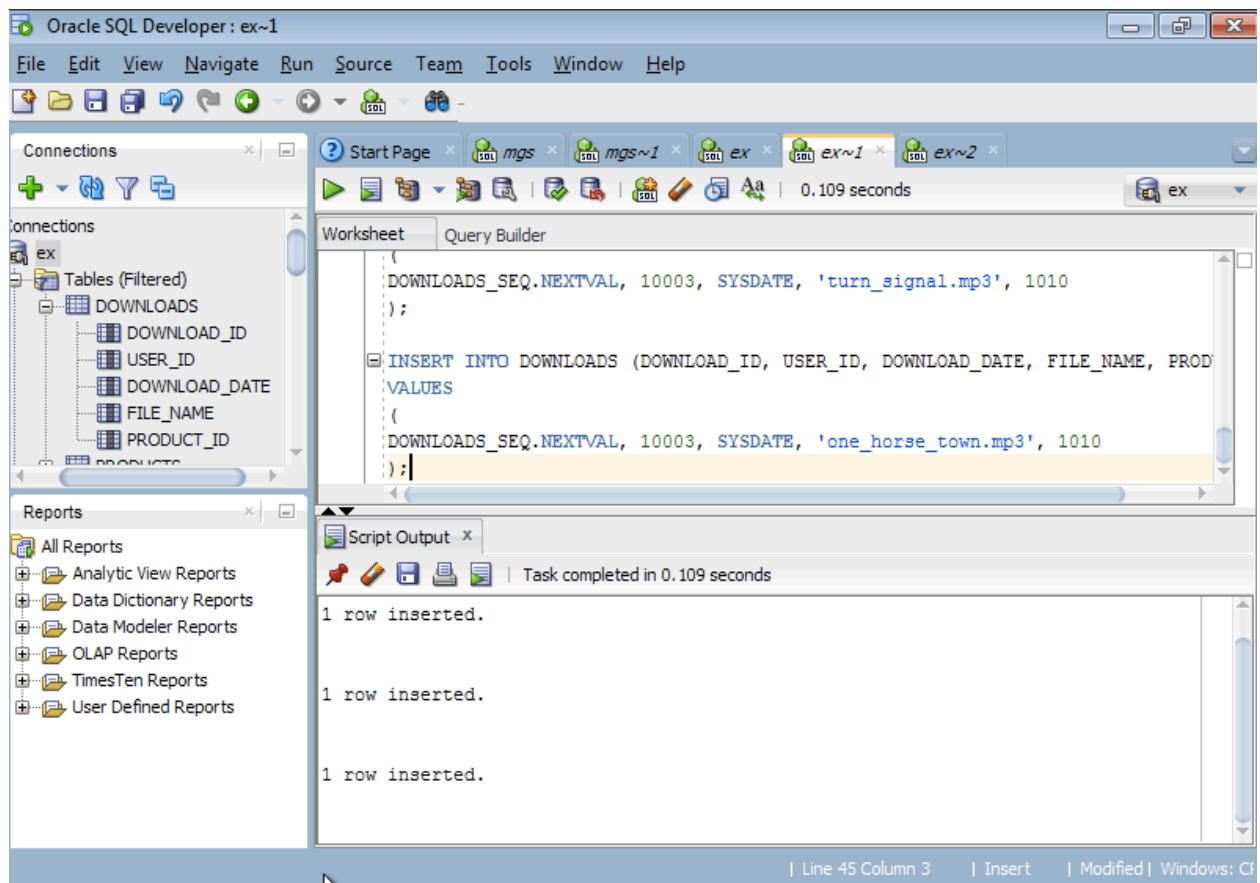
```
INSERT INTO PRODUCTS (PRODUCT_ID, PRODUCT_NAME)
VALUES
(
  PRODUCT_SEQ.NEXTVAL, 'Local Music Vol 1'
);
```

```
INSERT INTO PRODUCTS (PRODUCT_ID, PRODUCT_NAME)
VALUES
(
  PRODUCT_SEQ.NEXTVAL, 'Local Music Vol 2'
);
```

```
INSERT INTO DOWNLOADS (DOWNLOAD_ID, USER_ID, DOWNLOAD_DATE, FILE_NAME,
PRODUCT_ID)
VALUES
(
  DOWNLOADS_SEQ.NEXTVAL, 10002, SYSDATE, 'pedals_are_falling.mp3', 1000
);
```

```
INSERT INTO DOWNLOADS (DOWNLOAD_ID, USER_ID, DOWNLOAD_DATE, FILE_NAME,
PRODUCT_ID)
VALUES
(
  DOWNLOADS_SEQ.NEXTVAL, 10003, SYSDATE, 'turn_signal.mp3', 1010
);
```

```
INSERT INTO DOWNLOADS (DOWNLOAD_ID, USER_ID, DOWNLOAD_DATE, FILE_NAME,  
PRODUCT_ID)  
VALUES  
(  
DOWNLOADS_SEQ.NEXTVAL, 10003, SYSDATE, 'one_horse_town.mp3', 1010  
);
```




```

SELECT U.EMAIL_ADDRESS, U.FIRST_NAME, U.LAST_NAME, D.DOWNLOAD_DATE,
D.FILE_NAME, P.PRODUCT_NAME
FROM USERS U
JOIN DOWNLOADS D
ON U.user_id = D.user_id

JOIN PRODUCTS P
ON D.product_id = P.product_id

ORDER BY U.email_address DESC;

```

The screenshot shows the Oracle SQL Developer interface. The main window displays a SQL query in the Query Builder tab. The query is as follows:

```

SELECT U.EMAIL_ADDRESS, U.FIRST_NAME, U.LAST_NAME, D.DOWNLOAD_DATE,
D.FILE_NAME, P.PRODUCT_NAME
FROM USERS U
JOIN DOWNLOADS D
ON U.user_id = D.user_id

JOIN PRODUCTS P
ON D.product_id = P.product_id;

```

The Results pane shows the output of the query, displaying 3 rows of data. The columns are EMAIL_ADDRESS, FIRST_NAME, LAST_NAME, DOWNLOAD_DATE, and FILE_NAME.

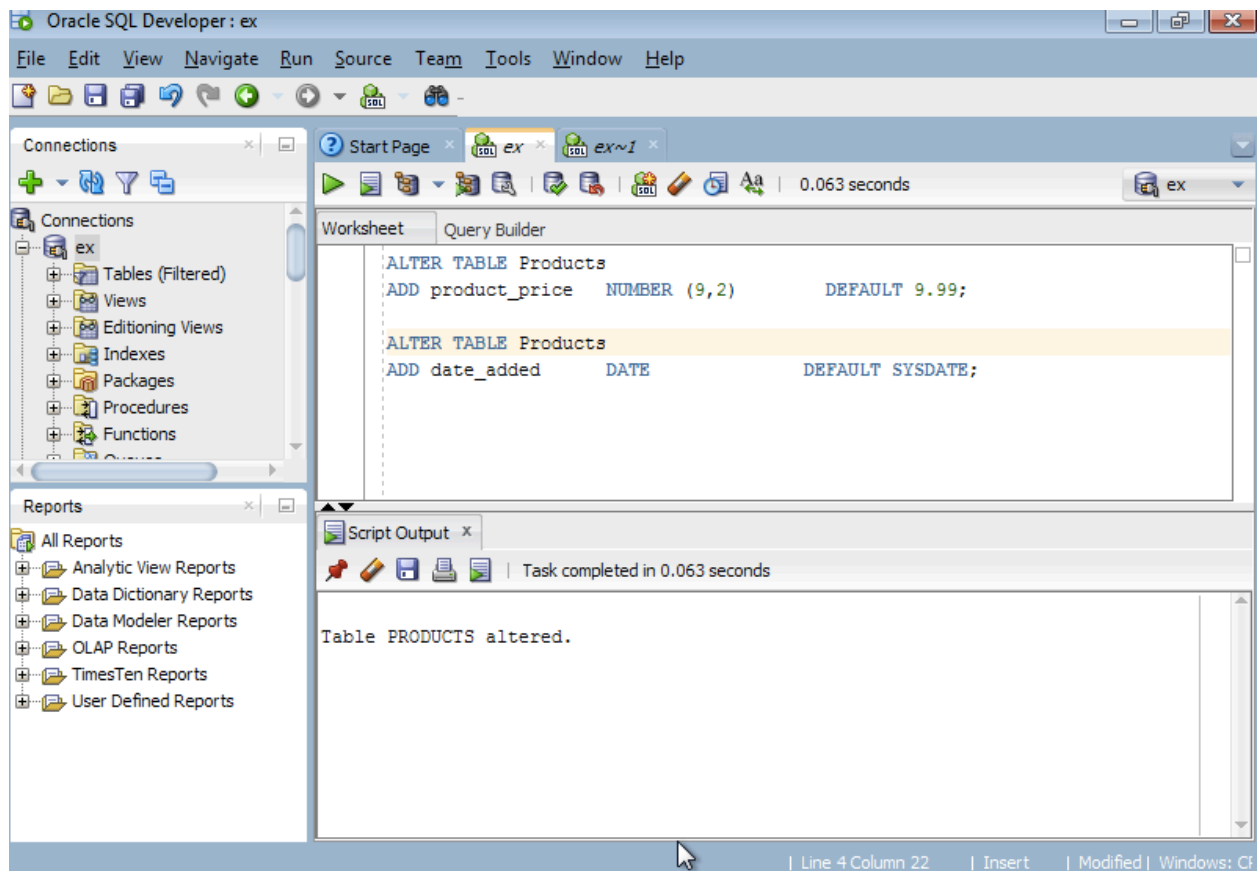
	EMAIL_ADDRESS	FIRST_NAME	LAST_NAME	DOWNLOAD_DATE	FILE_NAME
1	johnsmith@gmail.com	John	Smith	05-JUL-17	pedals_are_falling.
2	janedoe@gmail.com	Jane	Doe	05-JUL-17	turn_signal.mp3
3	janedoe@gmail.com	Jane	Doe	05-JUL-17	one_horse_town.mp3

The status bar at the bottom indicates the cursor is at Line 8 Column 32, in Insert mode, and the window is titled 'Modified | Windows: C'.

4.

```
ALTER TABLE Products  
ADD product_price  NUMBER (9,2)    DEFAULT 9.99;
```

```
ALTER TABLE Products  
ADD date_added     DATE              DEFAULT SYSDATE;
```



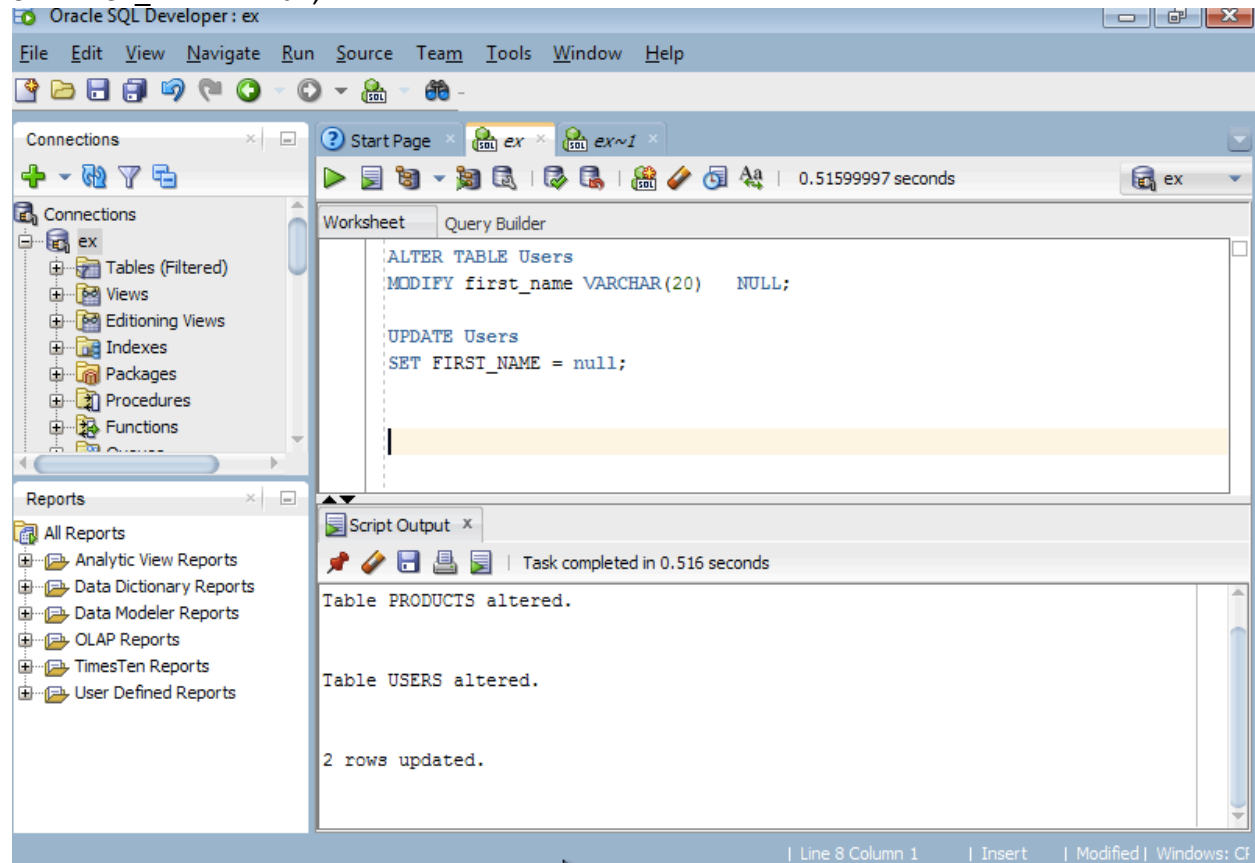
5.

ALTER TABLE Users

MODIFY first_name VARCHAR(20) NULL;

UPDATE Users

SET FIRST_NAME = null;



Oracle SQL Developer: ex~1

File Edit View Navigate Run Source Team Tools Window Help

Connections

- ex
 - Tables (Filtered)
 - Views
 - Editing Views
 - Indexes
 - Packages
 - Procedures
 - Functions

Reports

- All Reports
 - Analytic View Reports
 - Data Dictionary Reports
 - Data Modeler Reports
 - OLAP Reports
 - TimesTen Reports
 - User Defined Reports

Start Page ex ex~1

Worksheet Query Builder

```
SELECT * FROM USERS
```

Query Result x

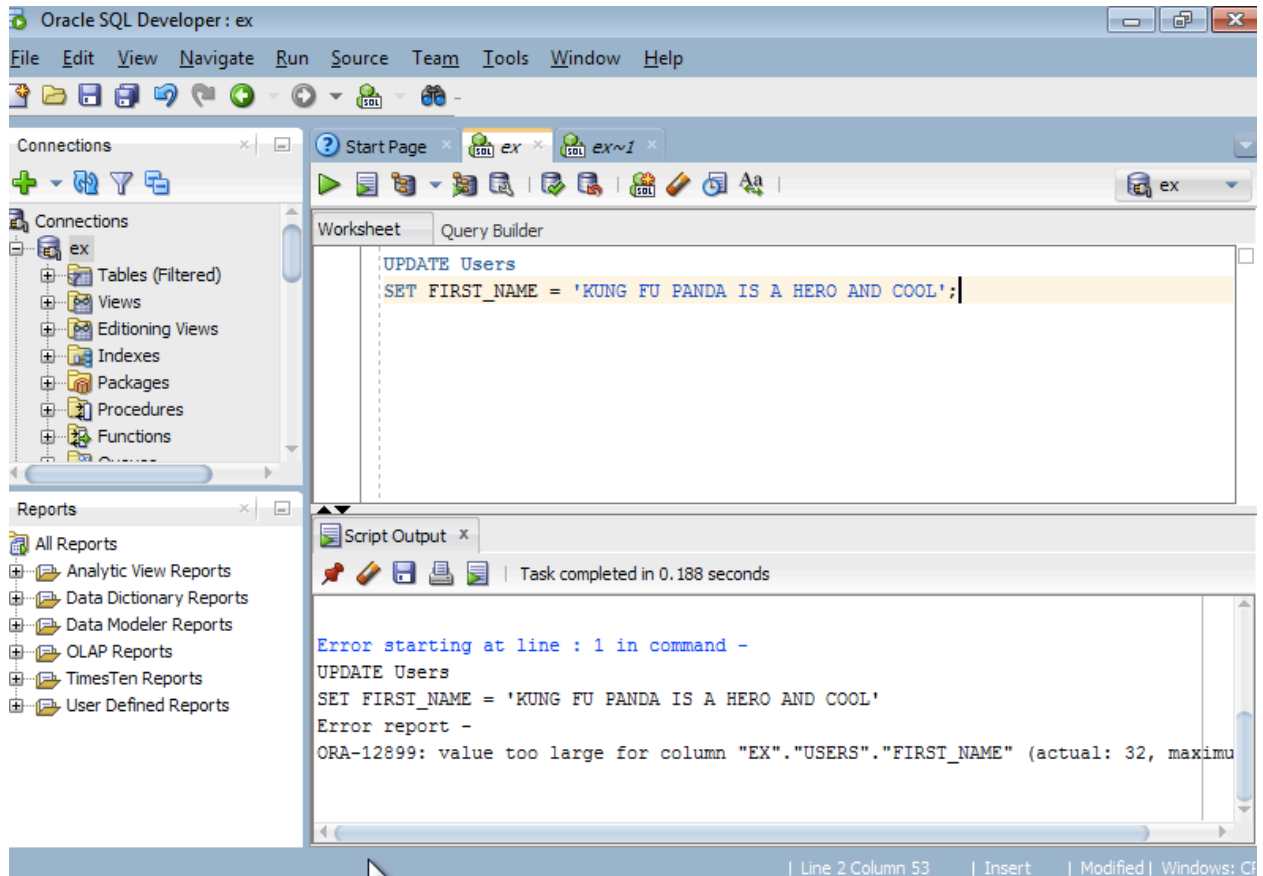
SQL | All Rows Fetched: 2 in 0.016 seconds

	USER_ID	EMAIL_ADDRESS	FIRST_NAME	LAST_NAME
1	10002	johnsmith@gmail.com	(null)	Smith
2	10003	janedoe@gmail.com	(null)	Doe

Error Statement:

UPDATE Users

SET FIRST_NAME = 'KUNG FU PANDA IS A HERO AND COOL';

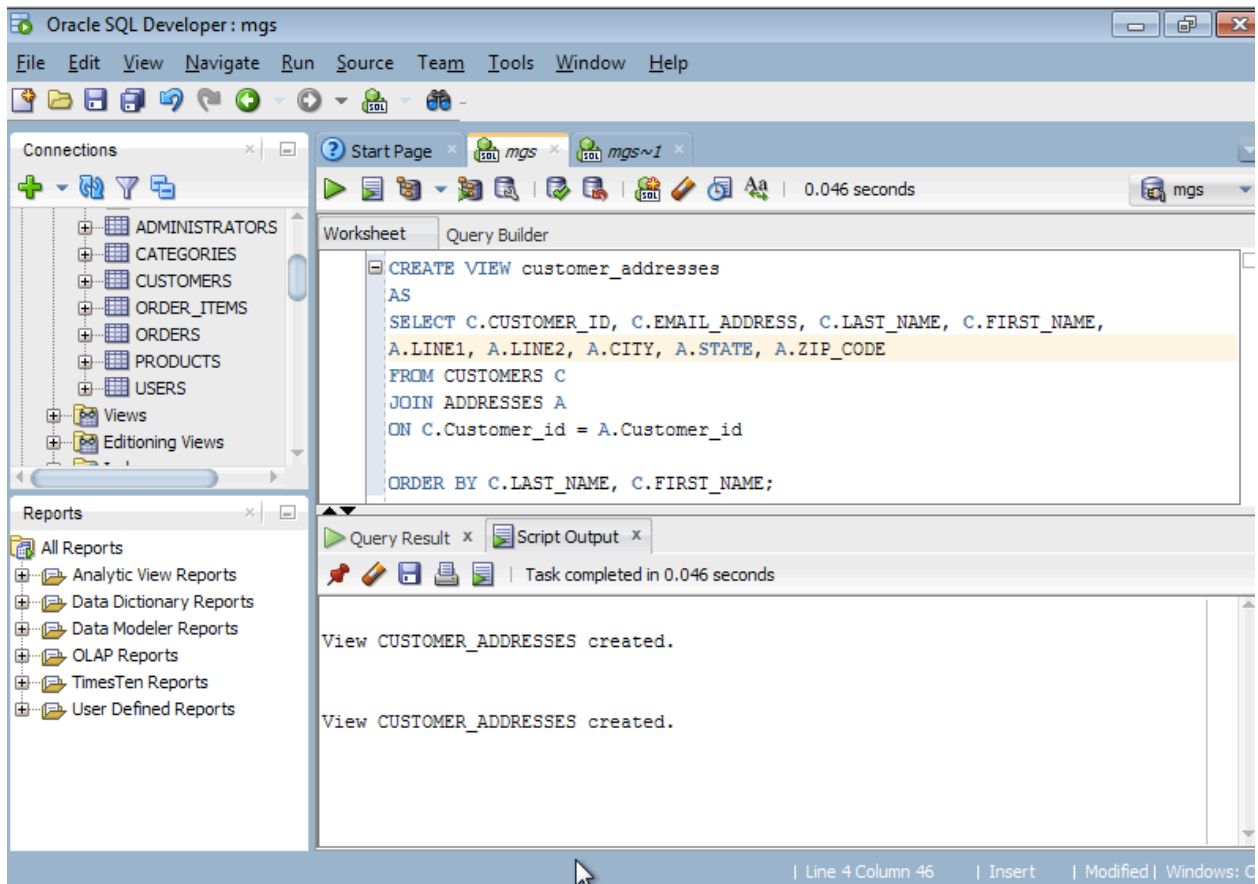


CHAPTER 11:

1.

NOTE* Missing columns in ADDRESSES table**

```
CREATE VIEW customer_addresses
AS
SELECT C.CUSTOMER_ID, C.EMAIL_ADDRESS, C.LAST_NAME, C.FIRST_NAME,
A.LINE1, A.LINE2, A.CITY, A.STATE, A.ZIP_CODE
FROM CUSTOMERS C
JOIN ADDRESSES A
ON C.Customer_id = A.Customer_id
ORDER BY C.LAST_NAME, C.FIRST_NAME;
```



2.

```
SELECT customer_id, first_name, line1  
FROM CUSTOMER_ADDRESSES;
```

The screenshot shows the Oracle SQL Developer interface. The 'Connections' pane on the left lists the database schema, including 'CUSTOMER_ADDRESSES'. The 'Worksheet' tab is active, displaying the SQL query: `SELECT customer_id, first_name, line1 FROM CUSTOMER_ADDRESSES;`. The 'Query Result' pane at the bottom shows the execution results, indicating 'All Rows Fetched: 12 in 0.016 seconds'. The results are displayed in a table with three columns: CUSTOMER_ID, FIRST_NAME, and LINE1.

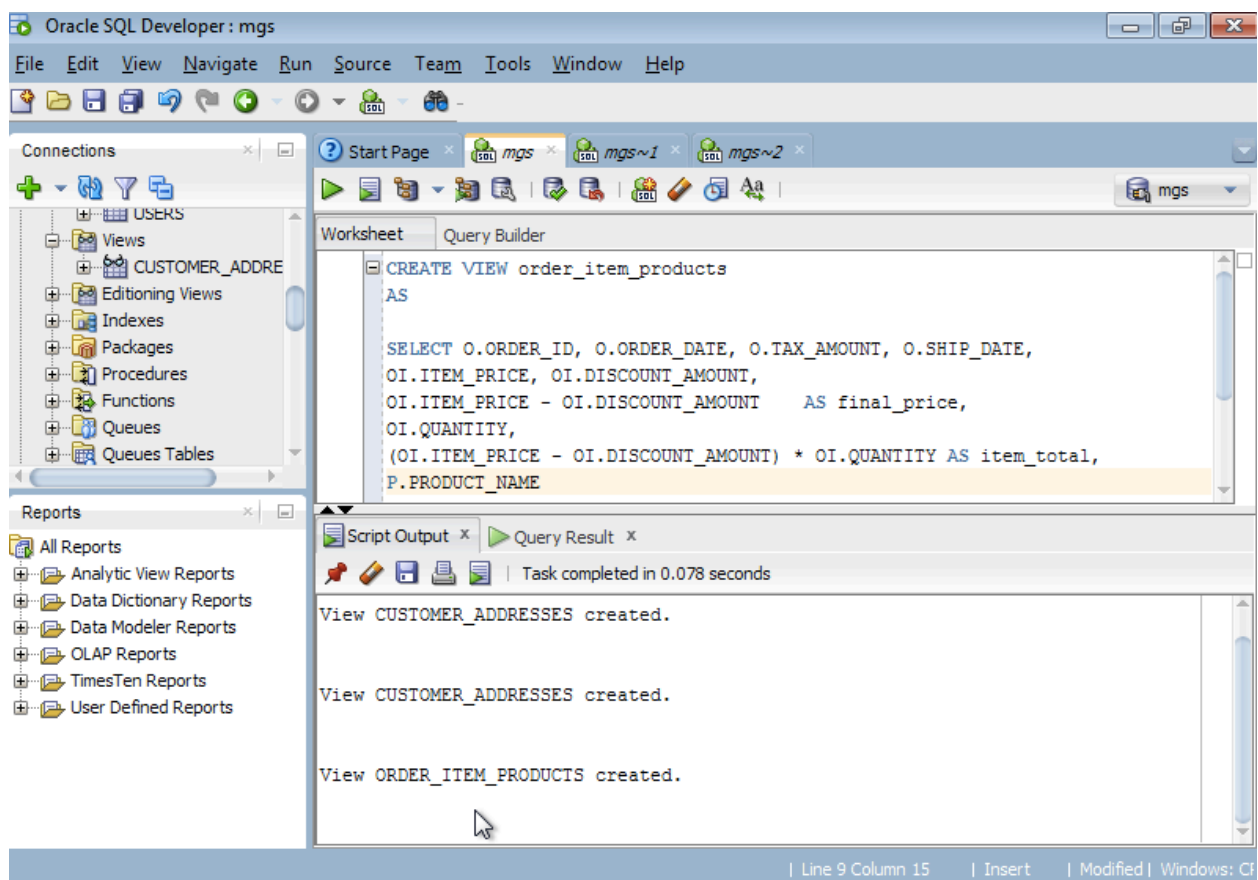
	CUSTOMER_ID	FIRST_NAME	LINE1
1	3	Christine	19270 NW Cornell Rd.
2	8	Heather	2381 Buena Vista St.
3	8	Heather	291 W. Hollywood Blvd.
4	4	David	1374 46th Ave.
5	4	David	186 Vermont St.
6	7	Gary	7361 N. 41st St.
7	7	Gary	3829 Broadway Ave.

3.

```
CREATE VIEW order_item_products  
AS
```

```
SELECT O.ORDER_ID, O.ORDER_DATE, O.TAX_AMOUNT, O.SHIP_DATE,  
OI.ITEM_PRICE, OI.DISCOUNT_AMOUNT,  
OI.ITEM_PRICE - OI.DISCOUNT_AMOUNT AS final_price,  
OI.QUANTITY,  
(OI.ITEM_PRICE - OI.DISCOUNT_AMOUNT) * OI.QUANTITY AS item_total,  
P.PRODUCT_NAME  
FROM ORDERS O  
JOIN ORDER_ITEMS OI  
ON O.Order_id = OI.Order_id
```

```
JOIN PRODUCTS P  
ON OI.Product_id = P.Product_id
```

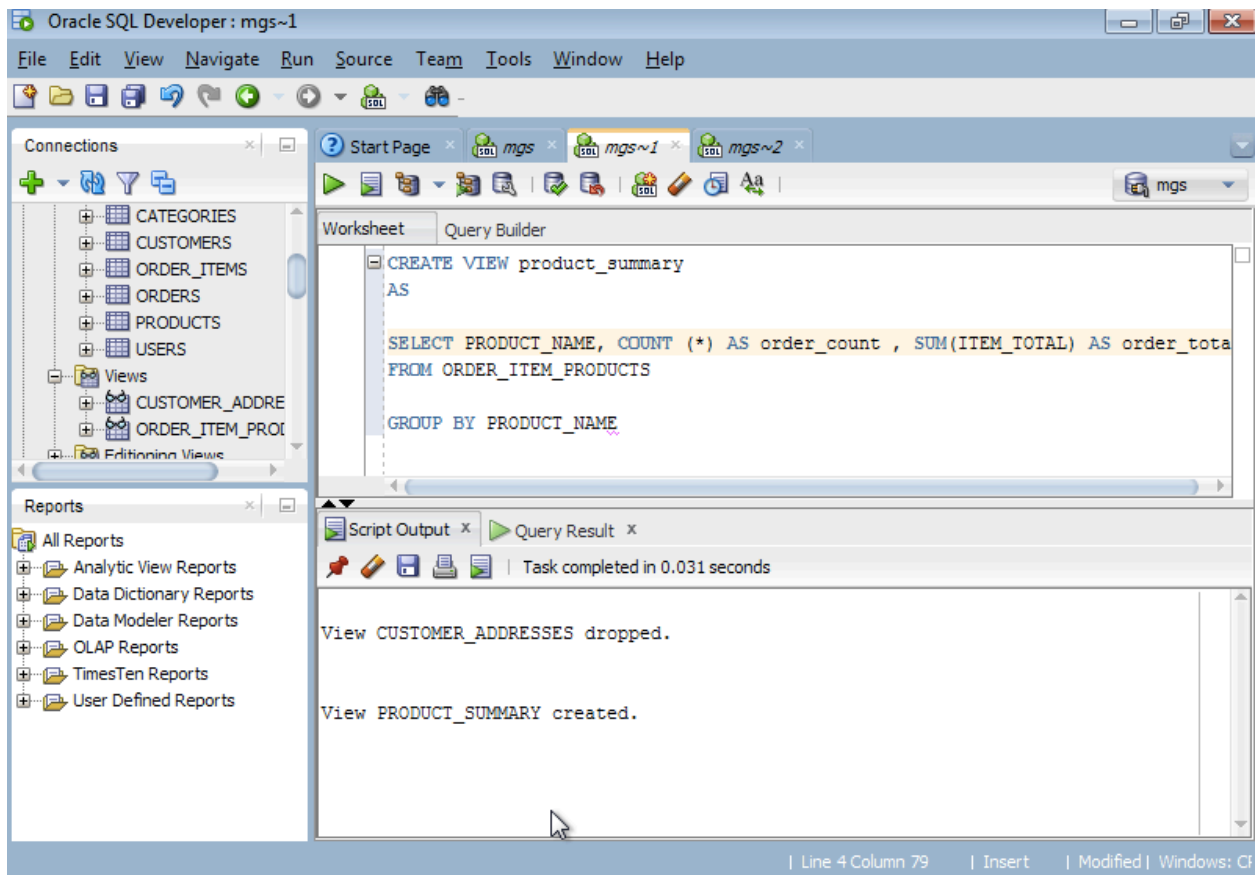


4.

```
CREATE VIEW product_summary  
AS
```

```
SELECT PRODUCT_NAME, COUNT (*) AS order_count , SUM(ITEM_TOTAL) AS order_total  
FROM ORDER_ITEM_PRODUCTS
```

```
GROUP BY PRODUCT_NAME;
```



5.

```
SELECT *  
FROM PRODUCT_SUMMARY  
WHERE ROWNUM <=5  
  
ORDER BY ORDER_TOTAL DESC;
```

The screenshot displays the Oracle SQL Developer interface. The 'Connections' pane on the left shows a tree structure of database objects including CATEGORIES, CUSTOMERS, ORDER_ITEMS, ORDERS, PRODUCTS, USERS, Views, CUSTOMER_ADDRE, ORDER_ITEM_PROI, and Editing Views. The 'Reports' pane below it lists various report types. The main workspace is divided into a 'Worksheet' and a 'Query Builder'. The 'Worksheet' tab is active, showing the following SQL query:

```
SELECT *  
FROM PRODUCT_SUMMARY  
WHERE ROWNUM <=5  
  
ORDER BY ORDER_TOTAL DESC;
```

Below the query editor, the 'Query Result' tab is active, displaying the results of the query. The status bar indicates 'All Rows Fetched: 5 in 0 seconds'. The results are shown in a table with three columns: PRODUCT_NAME, ORDER_COUNT, and ORDER_TOTAL.

	PRODUCT_NAME	ORDER_COUNT	ORDER_TOTAL
1	Gibson Les Paul	2	2517.9
2	Gibson SG	1	1208.16
3	Fender Stratocaster	2	978.6
4	Fender Precision	1	559.99
5	Ludwig 5-piece Drum Set with Cymbals	1	489.99

The status bar at the bottom indicates 'Line 5 Column 27 | Insert | Modified | Windows: CF'.