

ASSIGNMENT_5

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Screenshots:

Oracle Autonomous Database:

The screenshot displays the Oracle Cloud console interface. At the top, a notification bar indicates the user is on a Free Tier account. The main header shows the Oracle Cloud logo and a search bar. The breadcrumb trail reads: Overview > Autonomous Database > Autonomous Database details. The page title is 'DATABASE' with a 'Always Free' badge. A navigation bar contains links for Database actions, Database connection, Performance hub, Manage resource allocation, and More actions. The left sidebar features a large green 'ATP' logo and an 'AVAILABLE' status indicator. The main content area is divided into three tabs: 'Autonomous Database information' (selected), 'Tool configuration', and 'Tags'. Under 'Autonomous Database information', the 'General information' section lists details: Database name (Development), Workload type (Transaction Processing), Compartment (bharadiau (root)), OCID (...hsjwaq), Created (Thu, Oct 12, 2023, 20:14:00 UTC), License type (License included), Database version (19c), Lifecycle state (Available), Instance type (Free), Character set (AL32UTF8), National character set (AL16UTF16), and Mode (Read/write). The 'Disaster recovery' section shows Role (-), Local (Not enabled), and Cross-region (Not enabled). The 'Backup' section shows Automatic backup retention period (60 days), Total backup storage (7 GB), Last automatic backup (Fri, Nov 17, 2023, 02:10:45 UTC), Next long-term backup (-), and Long-term backup schedule (Schedule). The 'Network' section shows Access type (Allow secure access from everywhere). A right-hand profile menu is visible, showing the user's profile, identity domain, and tenancy.

You are using a Free Tier account. To access all services and resources, [upgrade](#) to a paid account. [Learn more](#) X

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Overview > Autonomous Database > Autonomous Database details

DATABASE Always Free

Database actions Database connection Performance hub Manage resource allocation More actions

ATP

AVAILABLE ⓘ

Autonomous Database information Tool configuration Tags

General information

Database name: Development

Workload type: Transaction Processing

Compartment: bharadiau (root)

OCID: ...hsjwaq [Show](#) [Copy](#)

Created: Thu, Oct 12, 2023, 20:14:00 UTC

License type: License included

Database version: 19c

Lifecycle state: Available

Instance type: Free [Upgrade to paid](#)

Character set: AL32UTF8

National character set: AL16UTF16

Mode: Read/write [Edit](#)

Disaster recovery ⓘ

Role: -

Local: Not enabled

Cross-region: Not enabled

Backup

Automatic backup retention period: 60 days [Edit](#)

Total backup storage: 7 GB

Last automatic backup: Fri, Nov 17, 2023, 02:10:45 UTC

Next long-term backup: -

Long-term backup schedule: [Schedule](#)

Network

Access type: Allow secure access from everywhere

Profile

Default/bharadia.u@northeastern.edu

Identity domain: Default

My profile

Tenancy: bharadiau

Console settings

Sign out

Setting up connection with Autonomous Database:

New / Select Database Connection

Connection ...	Connection ...
Admin	admin@dev...
Demo	demo@fall2...
DreamWorks	DreamWork...
John	John@dev2...
neudemo	neudemo@f...
uttk	uttk@develo...

Name: Color:

Database Type:

User Info: Proxy User

Authentication Type:

Username: Role:

Password: ☒ Save Password

Connection Type:

Details | Advanced | Proxy

Configuration File:

Service:

Status :

Creating EMP table and Inserting rows:

Oracle SQL Developer

Connections: Admin, Demo, DreamWorks, John, neudemo, uttk, Database Schema Service Connec

Worksheet:

```
// Create table EMP
CREATE TABLE EMP (
  EMPNO INT PRIMARY KEY,
  ENAME VARCHAR(255),
  JOB VARCHAR(255),
  MGR INT,
  HIREDATE DATE,
  SAL INT,
  COMM INT,
  DEPTNO INT
);

// Inserting data to EMP table
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO)
VALUES(7839, 'KING', 'PRESIDENT', NULL, TO_DATE('17-NOV-81 12:00:00', 'DD-MON-YY HH24:MI:SS'), 5000, NULL, NULL);
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO)
VALUES(7698, 'BLAKE', 'MANAGER', 7839, TO_DATE('01-MAY-81 12:00:00', 'DD-MON-YY HH24:MI:SS'), 2850, NULL, 30);
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO)
VALUES(7782, 'CLARK', 'MANAGER', 7839, TO_DATE('09-JUN-81 12:00:00', 'DD-MON-YY HH24:MI:SS'), 2450, NULL, 10);
INSERT INTO EMP (EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO)
```

Script Output: Task completed in 0.235 seconds

Table EMP created.

1 row inserted.

1 row inserted.

1 row inserted.

1 row inserted.

1 row inserted.

EMP table:

Oracle SQL Developer : Admin

Connections

Welcome Page Admin

Oracle Connections

- Admin
- Demo
- DreamWorks
- John
- neudemo
- uttk

Database Schema Service Connection

Worksheet Query Builder

SELECT * FROM EMP;

Script Output x Query Result x

SQL All Rows Fetched: 14 in 0.15 seconds

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
1	7839 KING	PRESIDENT	(null)	17-NOV-81	5000	(null)	(null)
2	7698 BLAKE	MANAGER	7839 01-MAY-81	2850	(null)	30	
3	7782 CLARK	MANAGER	7839 09-JUN-81	2450	(null)	10	
4	7566 JONES	MANAGER	7839 02-APR-81	2975	(null)	20	
5	7788 SCOTT	ANALYST	7566 19-APR-87	3000	(null)	20	
6	7902 FORD	ANALYST	7566 03-DEC-81	3000	(null)	20	
7	7369 SMITH	CLERK	7902 17-DEC-80	800	(null)	20	
8	7499 ALLEN	SALESMAN	7698 20-FEB-81	1600	300	30	
9	7521 WARD	SALESMAN	7698 22-FEB-81	1250	500	30	
10	7654 MARTIN	SALESMAN	7698 28-SEP-81	1250	1400	30	
11	7844 TURNER	SALESMAN	7698 08-SEP-81	1500	(null)	30	
12	7876 ADAMS	CLERK	7788 23-MAY-87	1100	(null)	20	
13	7900 JAMES	CLERK	7698 03-DEC-81	950	(null)	30	
14	7934 MILLER	CLERK	7782 23-JAN-82	1300	(null)	10	

Exception handling:

The screenshot shows the Oracle SQL Developer interface. The 'Worksheet' tab is active, displaying a PL/SQL procedure with exception handling. The code is as follows:

```
SET SERVEROUTPUT ON

DECLARE
  V_ENAME EMP.ENAME%TYPE;
BEGIN
  SELECT ENAME INTO V_ENAME FROM EMP WHERE EMPNO =10;
EXCEPTION
  WHEN NO_DATA_FOUND THEN
    DBMS_OUTPUT.PUT_LINE('Hey end a valid employee ID to get the result!');
END;
```

The 'Script Output' pane at the bottom shows the results of the procedure execution:

```
1 row inserted.

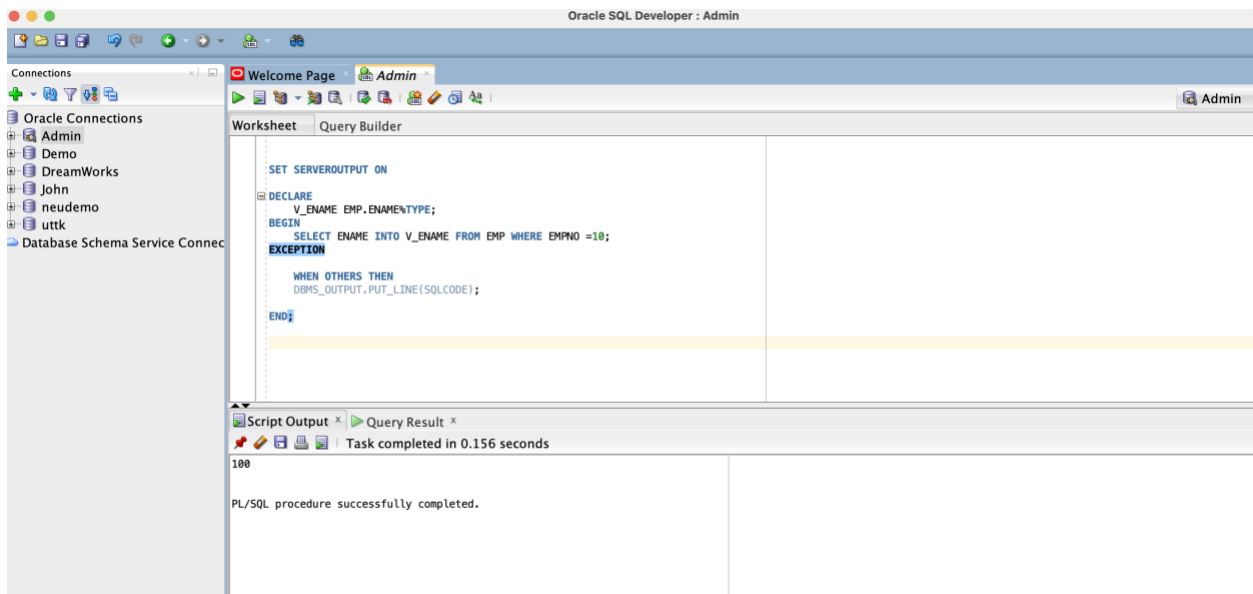
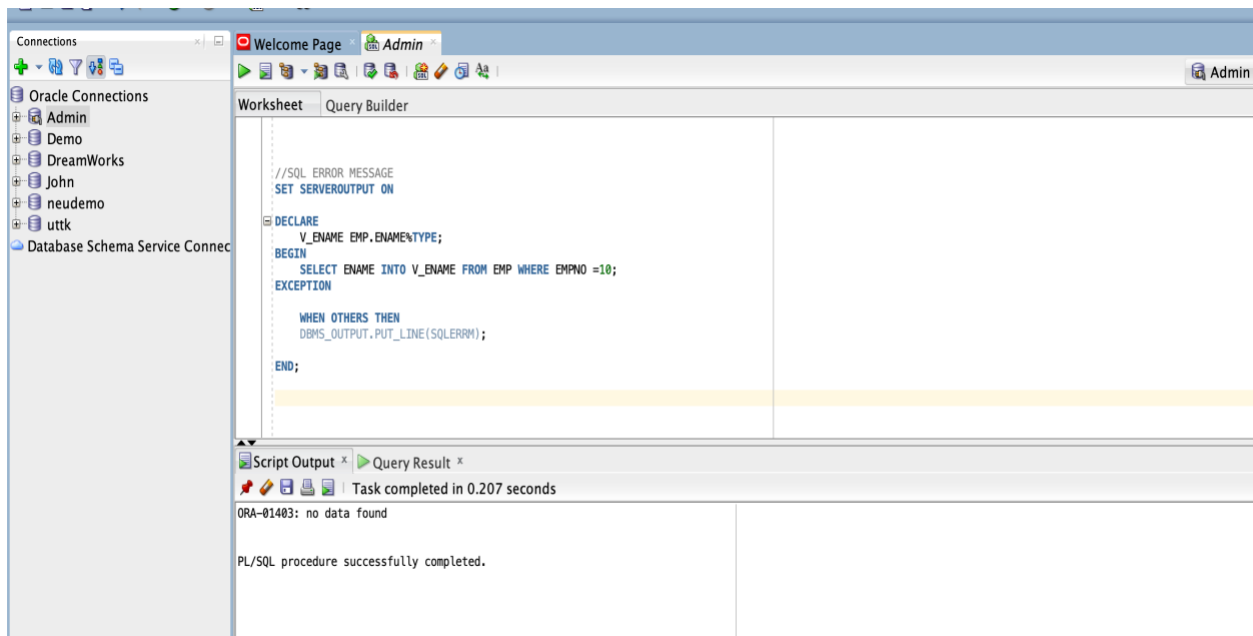
1 row inserted.

Commit complete.

PL/SQL procedure successfully completed.

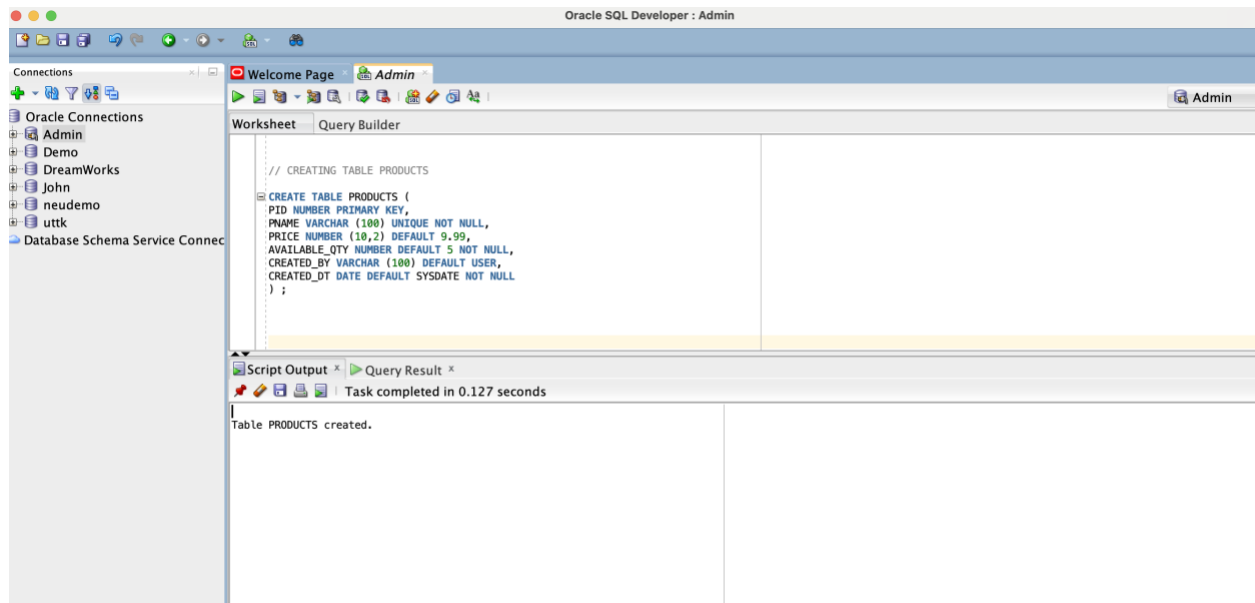
Hey end a valid employee ID to get the result!

PL/SQL procedure successfully completed.
```

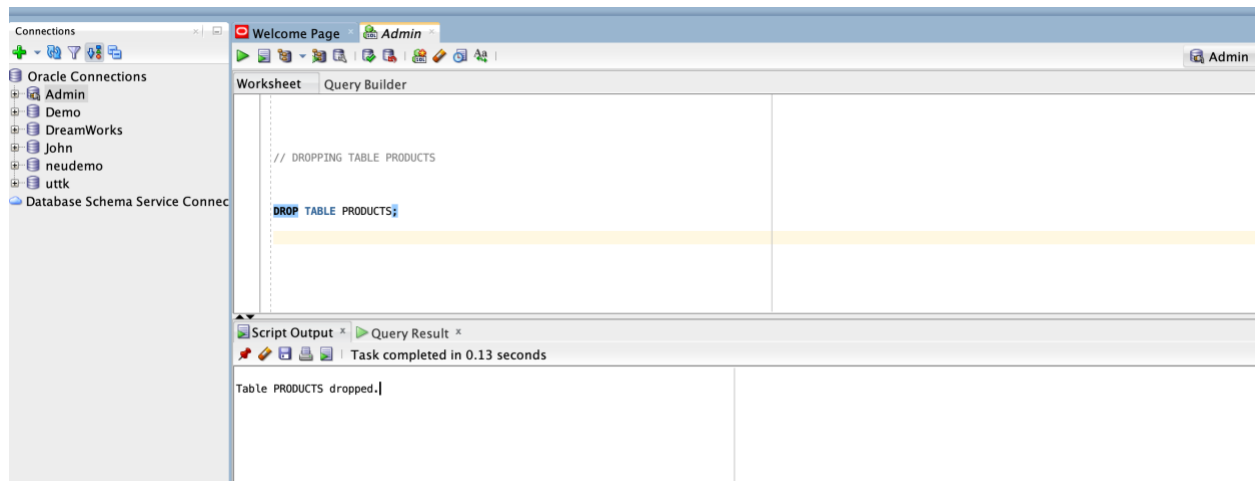


INVENTORY MANAGEMENT:

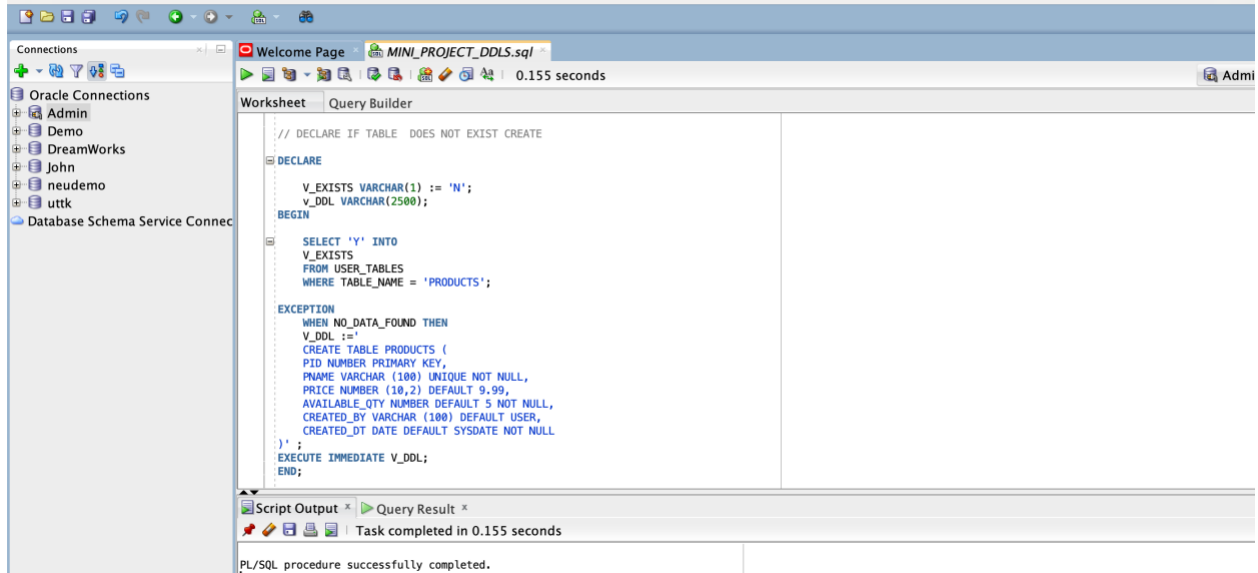
CREATING TABLE PRODUCTS:



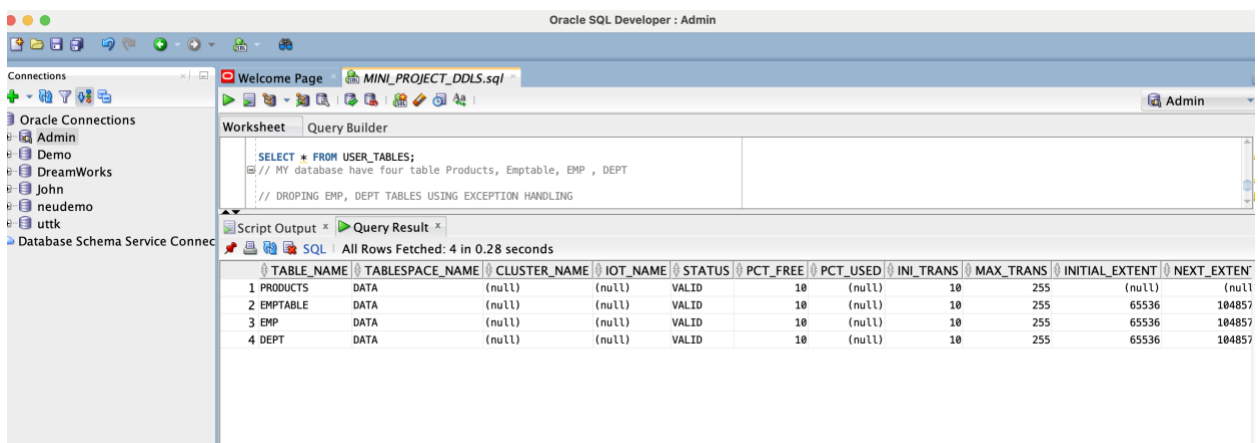
DROPPING TABLE PRODUCTS:



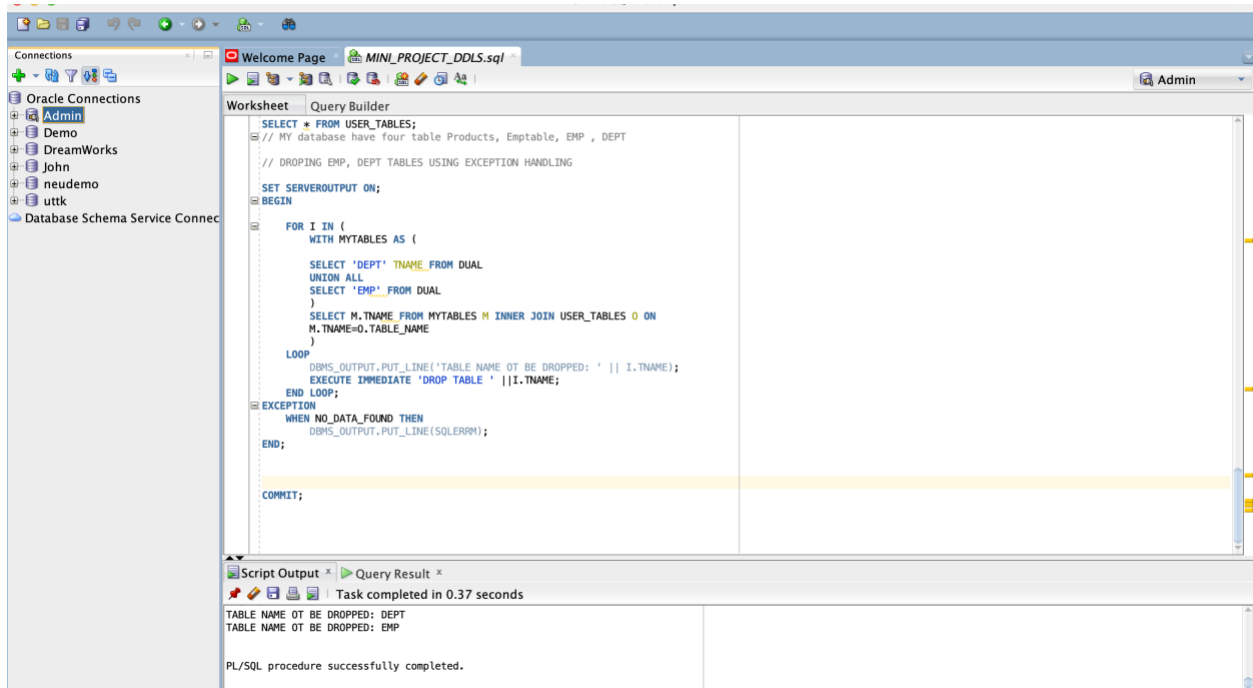
DECLARE.
(CREATING TABLE USING STORED PROCEDURE)



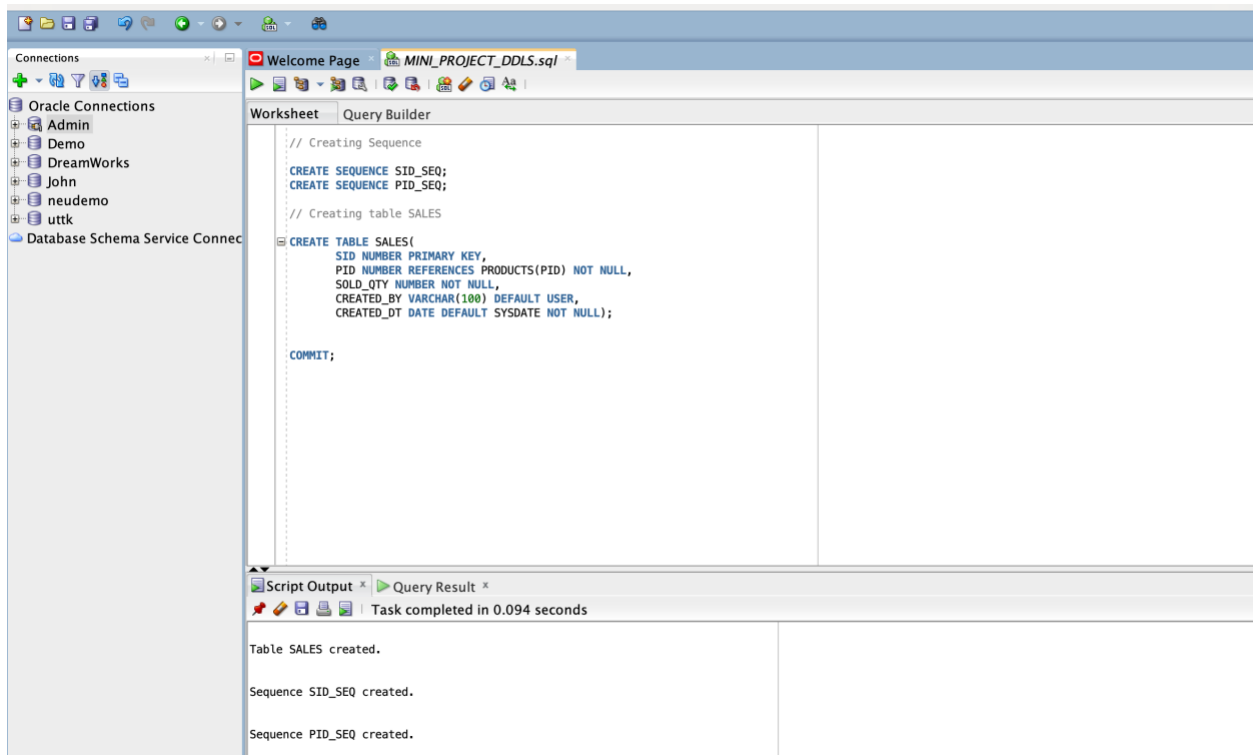
Checking for user tables in database:



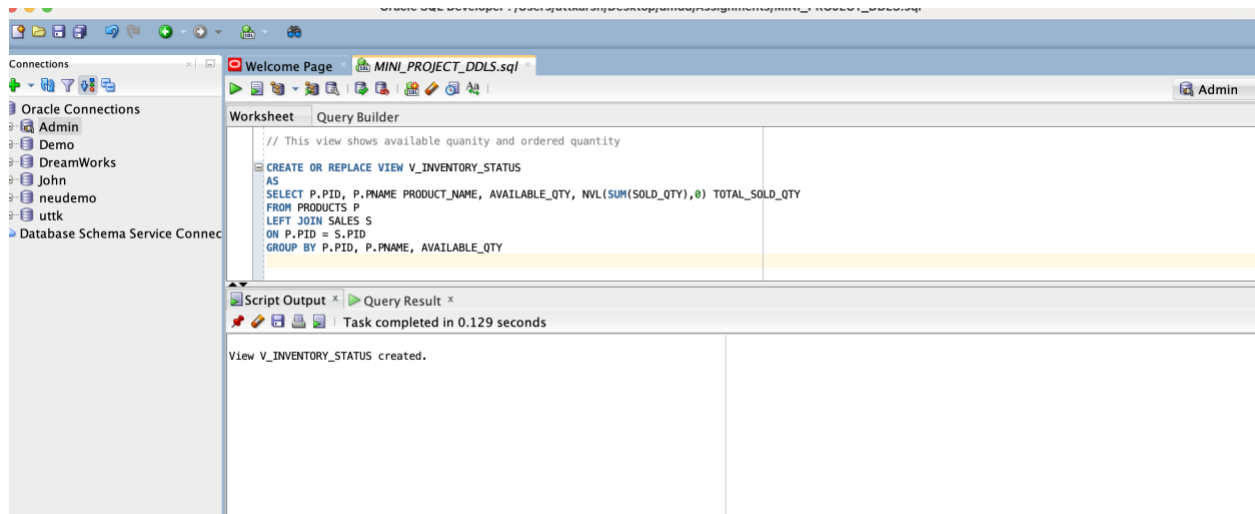
Dropping table EMP, DEPT:



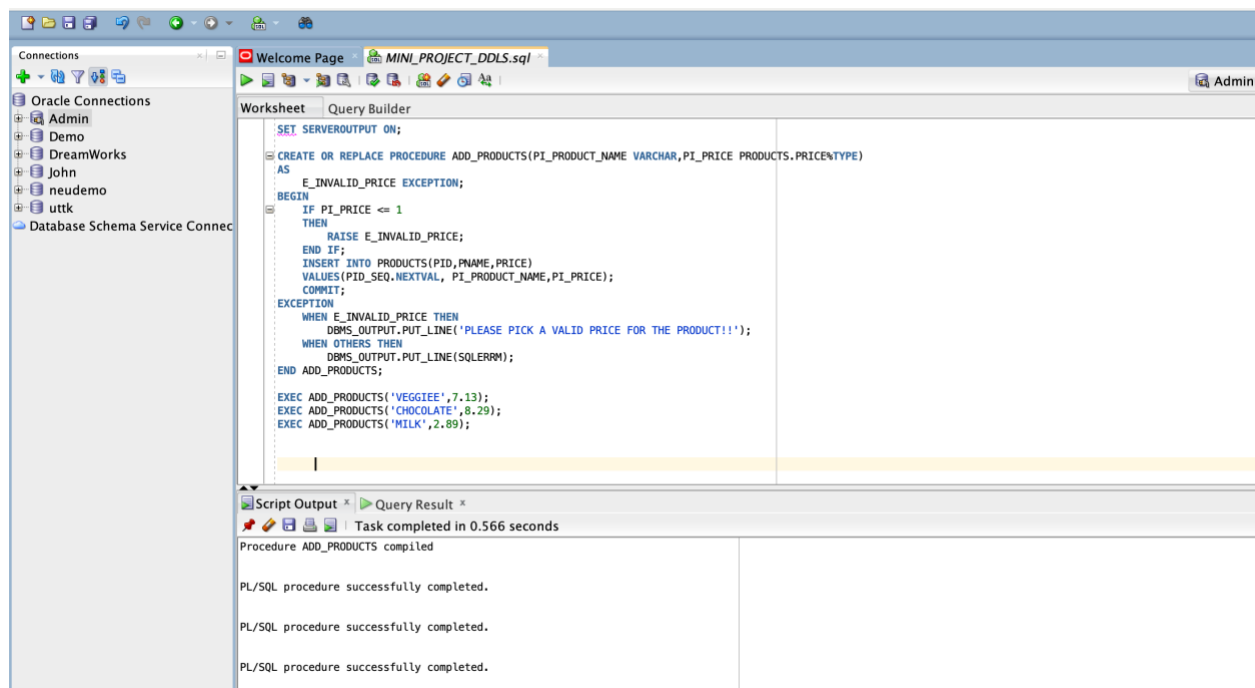
Creating sequence and sales table:



Creating View



Adding Products:



Adding Sales:

The screenshot shows the Oracle SQL Developer interface with the 'MINI_PROJECT_DDLS.sql' file open. The 'Worksheet' tab is active, displaying the following PL/SQL code:

```
// ADD_SALES :  
CREATE OR REPLACE PROCEDURE ADD_SALES(  
  PI_PRODUCT_NAME VARCHAR,  
  PI_PURCHASE_QTY SALES.SOLD_QTY%TYPE  
)  
AS  
  E_OUT_OF_INVENTORY EXCEPTION;  
  E_INVALID_QUANTITY EXCEPTION;  
  V_QTY_AVAILABLE INTEGER;  
  V_PID PRODUCTS.PID%TYPE;  
BEGIN  
  IF PI_PURCHASE_QTY < 1 THEN  
    RAISE E_INVALID_QUANTITY;  
  END IF;  
  
  SELECT PID, AVAILABLE_QTY - TOTAL_SOLD_QTY  
    INTO V_PID, V_QTY_AVAILABLE  
  FROM V_INVENTORY_STATUS  
 WHERE PRODUCT_NAME = PI_PRODUCT_NAME;  
  DBMS_OUTPUT.PUT_LINE('V_QTY_AVAILABLE');  
  IF V_QTY_AVAILABLE < 0 THEN  
    RAISE E_OUT_OF_INVENTORY;  
  END IF;  
  
  INSERT INTO SALES(SID, PID, SOLD_QTY)  
    VALUES (SID_SEQ.NEXTVAL, V_PID, PI_PURCHASE_QTY);  
  
  COMMIT;  
  
EXCEPTION  
  WHEN NO_DATA_FOUND THEN  
    DBMS_OUTPUT.PUT_LINE('Product name is not available in store. Better luck next time');  
  WHEN E_INVALID_QUANTITY THEN  
    DBMS_OUTPUT.PUT_LINE('Order Quantity should be more than zero');  
  WHEN E_OUT_OF_INVENTORY THEN  
    DBMS_OUTPUT.PUT_LINE('Out of Stock');  
  WHEN OTHERS THEN  
    DBMS_OUTPUT.PUT_LINE(SQLERRM);  
END ADD_SALES;
```

The 'Script Output' tab shows the message: 'Task completed in 0.202 seconds'. The 'Query Result' tab shows: 'Procedure ADD_SALES compiled'.

The screenshot shows the Oracle SQL Developer interface with the 'MINI_PROJECT_DDLS.sql' file open. The 'Worksheet' tab is active, displaying the following PL/SQL code:

```
EXEC ADD_SALES('VEGGIEE',1);  
EXEC ADD_SALES('Pizza',2);  
  
COMMIT;
```

The 'Script Output' tab shows the following output:

```
V_QTY_AVAILABLE  
Out of Stock  
  
PL/SQL procedure successfully completed.  
  
Product name is not available in store. Better luck next time  
  
PL/SQL procedure successfully completed.
```

The 'Query Result' tab shows: 'Task completed in 0.254 seconds'.