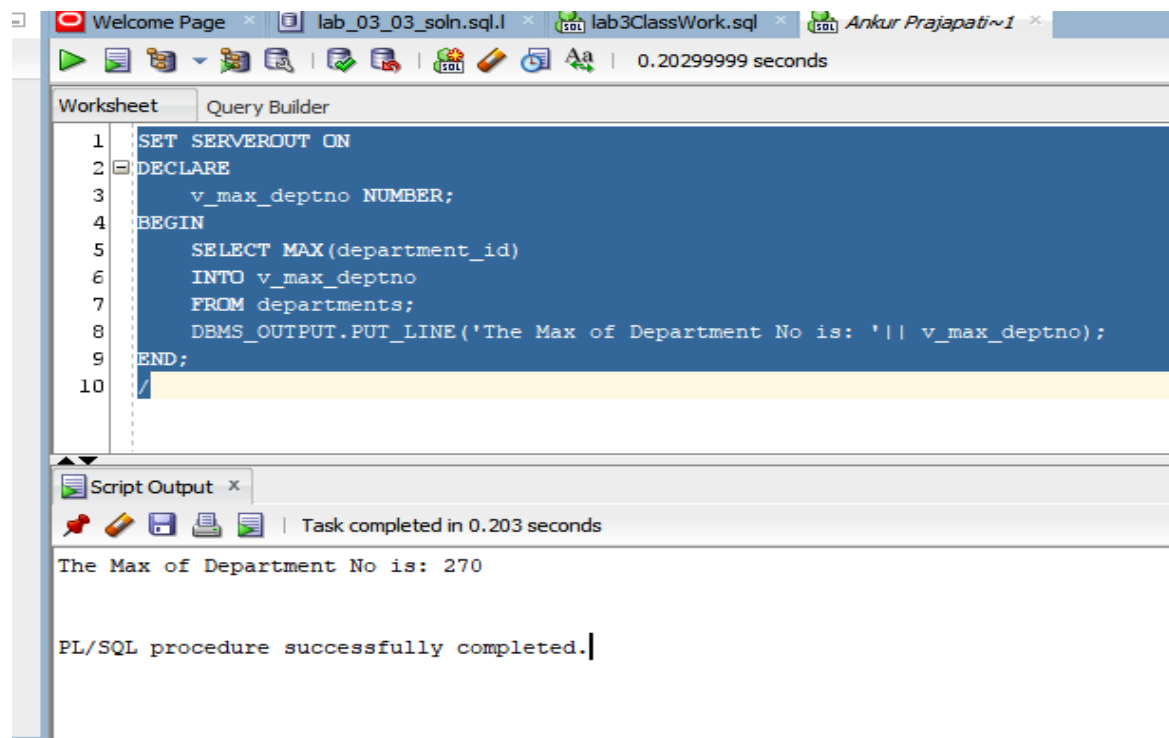


## Practice 1

### Question 1



The screenshot shows the Oracle SQL Developer interface. The top toolbar indicates the execution time is 0.20299999 seconds. The 'Worksheet' tab is active, displaying a PL/SQL script:

```
1 SET SERVEROUT ON
2 DECLARE
3     v_max_deptno NUMBER;
4 BEGIN
5     SELECT MAX(department_id)
6     INTO v_max_deptno
7     FROM departments;
8     DBMS_OUTPUT.PUT_LINE('The Max of Department No is: ' || v_max_deptno);
9 END;
10 /
```

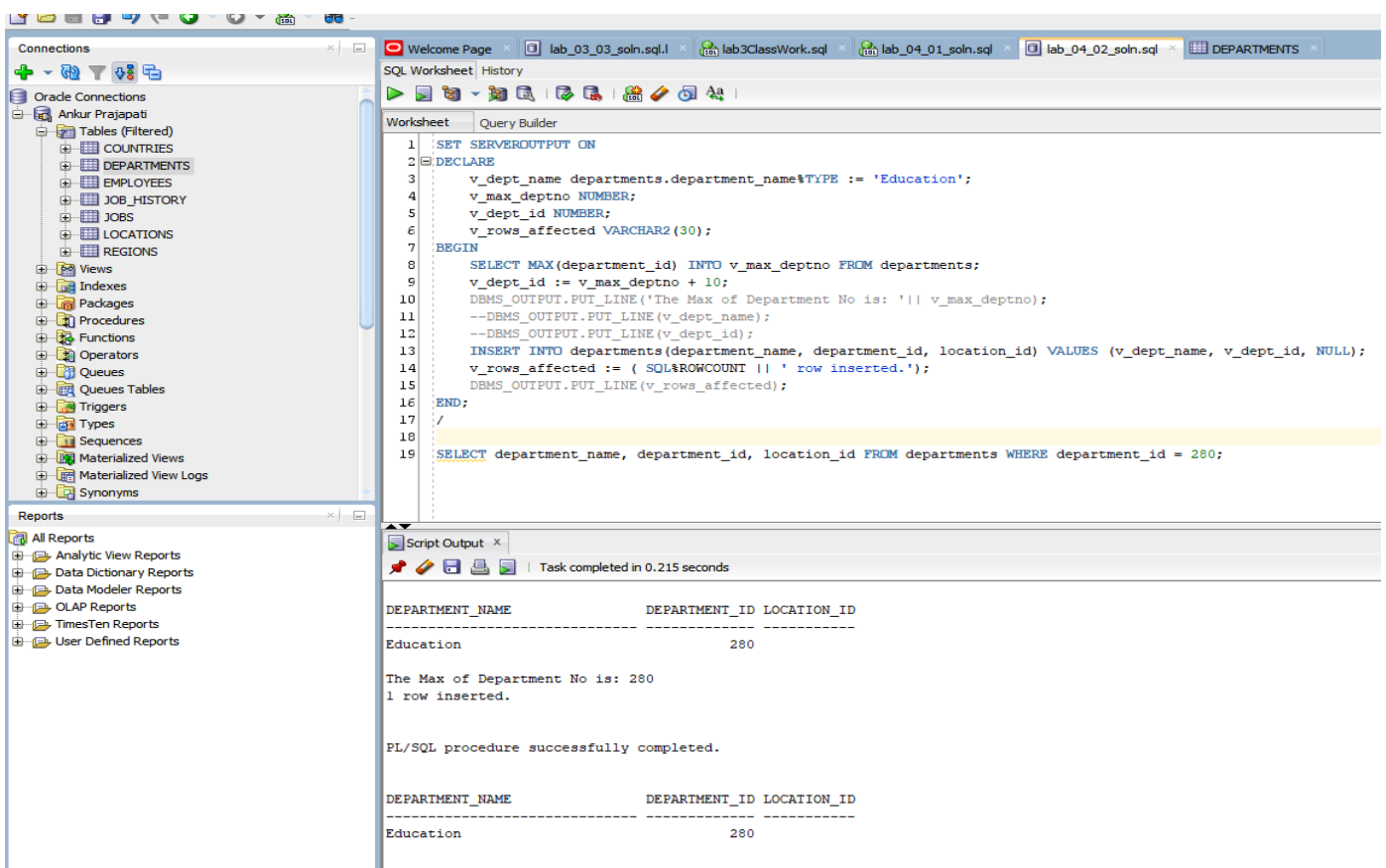
The 'Script Output' window below shows the results of the execution:

```
Task completed in 0.203 seconds

The Max of Department No is: 270

PL/SQL procedure successfully completed.
```

### Question 2



The screenshot shows the Oracle SQL Developer interface with the 'DEPARTMENTS' table selected in the 'Connections' pane. The 'Worksheet' tab is active, displaying a PL/SQL script:

```
1 SET SERVEROUTPUT ON
2 DECLARE
3     v_dept_name departments.department_name%TYPE := 'Education';
4     v_max_deptno NUMBER;
5     v_dept_id NUMBER;
6     v_rows_affected VARCHAR2(30);
7 BEGIN
8     SELECT MAX(department_id) INTO v_max_deptno FROM departments;
9     v_dept_id := v_max_deptno + 10;
10    DBMS_OUTPUT.PUT_LINE('The Max of Department No is: ' || v_max_deptno);
11    --DBMS_OUTPUT.PUT_LINE(v_dept_name);
12    --DBMS_OUTPUT.PUT_LINE(v_dept_id);
13    INSERT INTO departments(department_name, department_id, location_id) VALUES (v_dept_name, v_dept_id, NULL);
14    v_rows_affected := ( SQLROWCOUNT || ' row inserted.' );
15    DBMS_OUTPUT.PUT_LINE(v_rows_affected);
16 END;
17 /
18
19 SELECT department_name, department_id, location_id FROM departments WHERE department_id = 280;
```

The 'Script Output' window below shows the results of the execution:

```
Task completed in 0.215 seconds

DEPARTMENT_NAME      DEPARTMENT_ID LOCATION_ID
-----
Education              280

The Max of Department No is: 280
1 row inserted.

PL/SQL procedure successfully completed.

DEPARTMENT_NAME      DEPARTMENT_ID LOCATION_ID
-----
Education              280
```

### Question 3

The screenshot displays the Oracle SQL Developer environment. On the left, the 'Connections' pane shows a connection to 'Ankur Prajapati'. Below it, the 'Reports' pane lists various report types. The main workspace is divided into two panes: 'Worksheet' and 'Query Builder'. The 'Worksheet' pane contains a PL/SQL procedure script. The 'Query Builder' pane is empty. Below the main workspace, the 'Script Output' pane shows the execution results.

```
1 SET SERVEROUTPUT ON
2 DECLARE
3     v_dept_name departments.department_name%TYPE := 'Education';
4     v_max_deptno NUMBER;
5     v_dept_id NUMBER;
6     v_rows_affected VARCHAR2(30);
7 BEGIN
8     --SELECT MAX(department_id) INTO v_max_deptno FROM departments;
9     --UPDATE departments SET location_id=3000 WHERE department_id= 320;
10    DELETE FROM departments WHERE department_id=320;
11    v_rows_affected := ( SQL%ROWCOUNT || ' row affected.' );
12    DBMS_OUTPUT.PUT_LINE(v_rows_affected);
13 END;
14 /
15
16 SELECT * FROM departments WHERE department_id = 320;
```

Task completed in 0.062 seconds

PL/SQL procedure successfully completed.

DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
320	Education		3000

1 row affected.

PL/SQL procedure successfully completed.

## Practice 2

### Question 1

The screenshot displays the Oracle SQL Developer environment. The main window shows a PL/SQL script being executed. The script creates a table named 'messages' with a VARCHAR2(80) column and inserts 10 rows, with rows 6 and 8 containing null values. The execution is successful, as indicated by the 'Script Output' pane showing 'Task completed in 0.035 seconds' and the 'RESULTS' pane showing '8 rows selected.'

**Connections**

- Oracle Connections
  - Ankur Prajapati
- Oracle NoSQL Connections
- Database Schema Service Connections

**Worksheet**

```
1 CREATE TABLE messages (results VARCHAR2(80));
2
3 BEGIN
4   FOR i in 1..10 LOOP
5     IF i = 6 or i = 8 THEN
6       null;
7     ELSE
8       INSERT INTO messages(results)
9         VALUES (i);
10    END IF;
11  END LOOP;
12 COMMIT;
13 END;
14 /
15
16 SELECT * FROM messages;
```

**Script Output**

Task completed in 0.035 seconds

**RESULTS**

```
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```

8 rows selected.

## Question 2

The screenshot displays the Oracle SQL Developer environment. The top toolbar includes icons for connections, workspace, and execution. The left sidebar shows the 'Connections' pane with 'Ankur Prajapati' selected, and the 'Reports' pane with various report types. The main workspace is divided into three panes: 'Worksheet' (containing the PL/SQL script), 'Script Output' (showing execution messages), and 'Table EMP' (displaying the query result).

**Worksheet:**

```
14 /
15
16 SELECT * FROM messages;
17
18 DROP TABLE emp;
19
20 CREATE TABLE emp AS SELECT * FROM employees;
21 ALTER TABLE emp ADD stars VARCHAR2(50);
22 DECLARE
23     v_empno emp.employee_id%TYPE := 176;
24     v_asterisk emp.stars%TYPE := NULL;
25     v_sal emp.salary%TYPE;
26 BEGIN
27     SELECT NVL(ROUND(salary/1000), 0) INTO v_sal
28     FROM emp WHERE employee_id = v_empno;
29     FOR i IN 1..v_sal
30     LOOP
31         v_asterisk := v_asterisk || '*';
32     END LOOP;
33     UPDATE emp SET stars = v_asterisk
34     WHERE employee_id = v_empno;
35     COMMIT;
36 END;
37 /
38 SELECT employee_id,salary, stars FROM emp WHERE employee_id =176;
```

**Script Output:**

```
Table EMP created.

Table EMP altered.

PL/SQL procedure successfully completed.
```

**Table EMP:**

EMPLOYEE_ID	SALARY	STARS
176	8600	*****