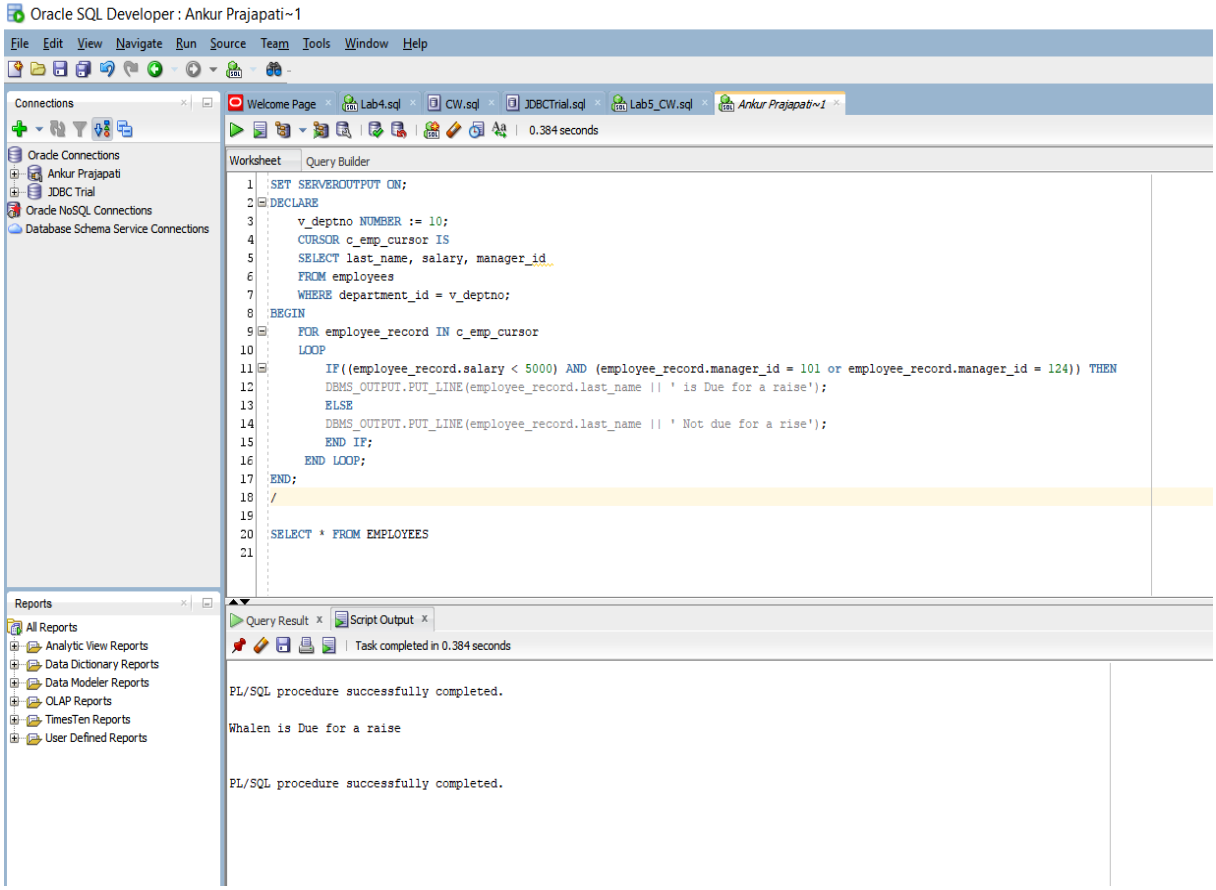
Ankur Prajapati
N01324892

Practice 1:

Question 1:

Test Outputs:



Here I have created CURSOR named c_emp_cursor and it selects last name, salary and manager id from employees where cdepartment id is same as v_deptno.

In executable section I used LOOP for employee_record in c_emp_cursor to print the output.

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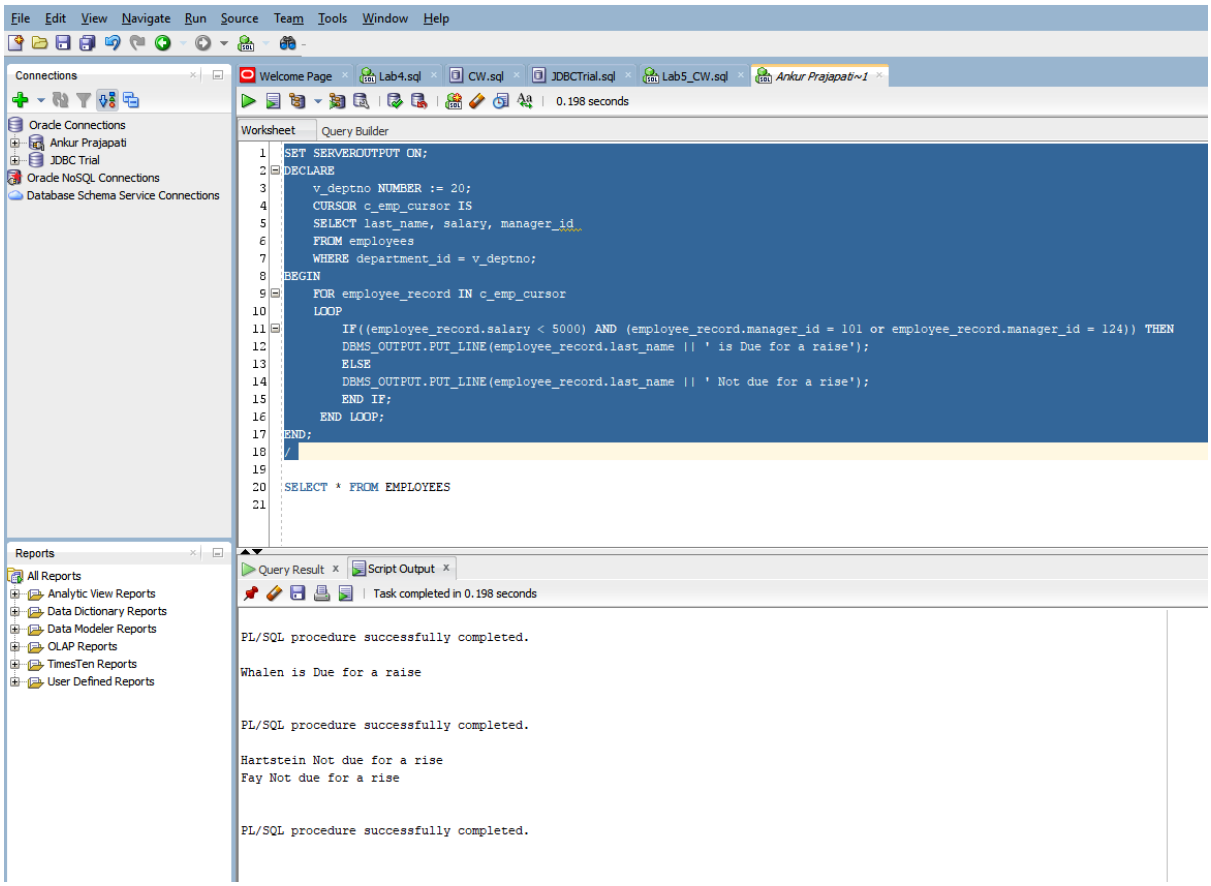

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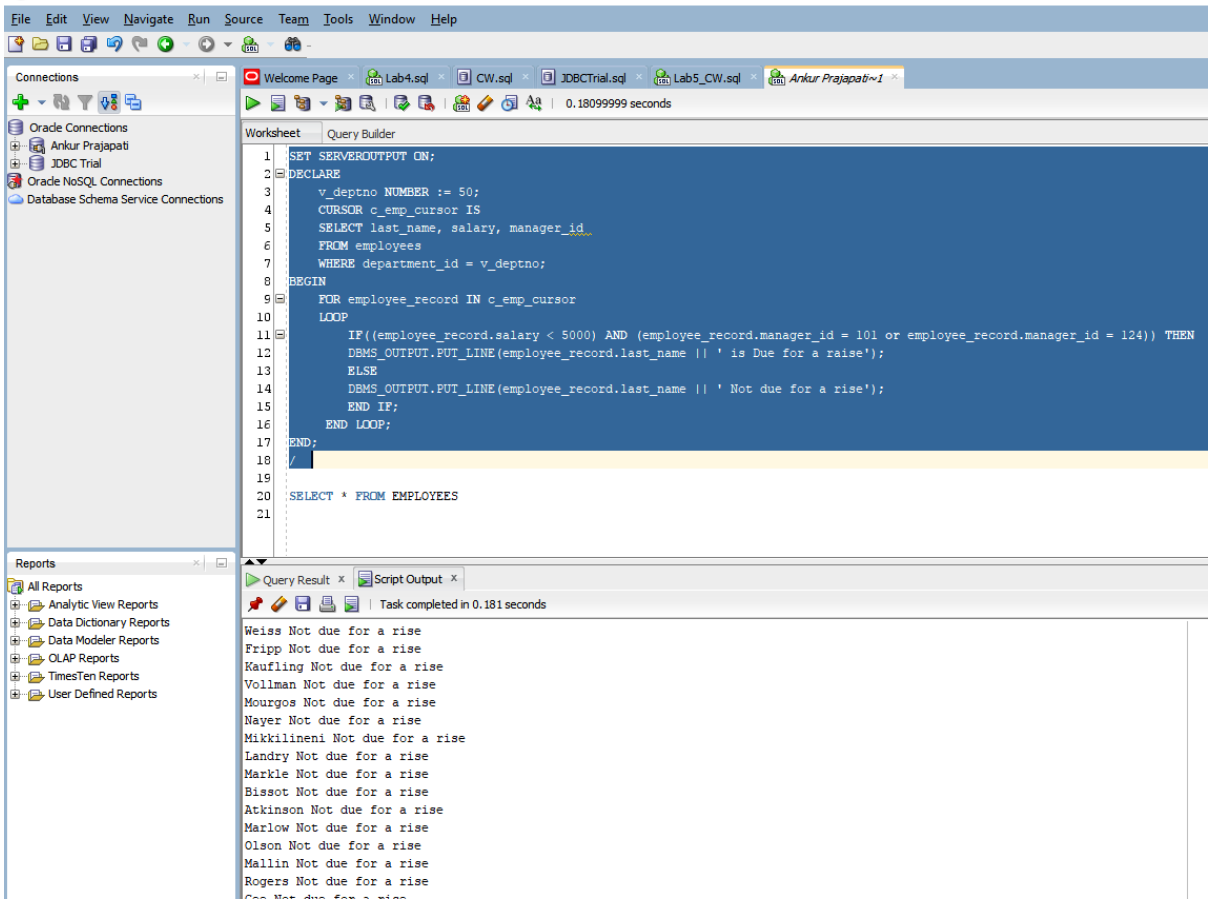
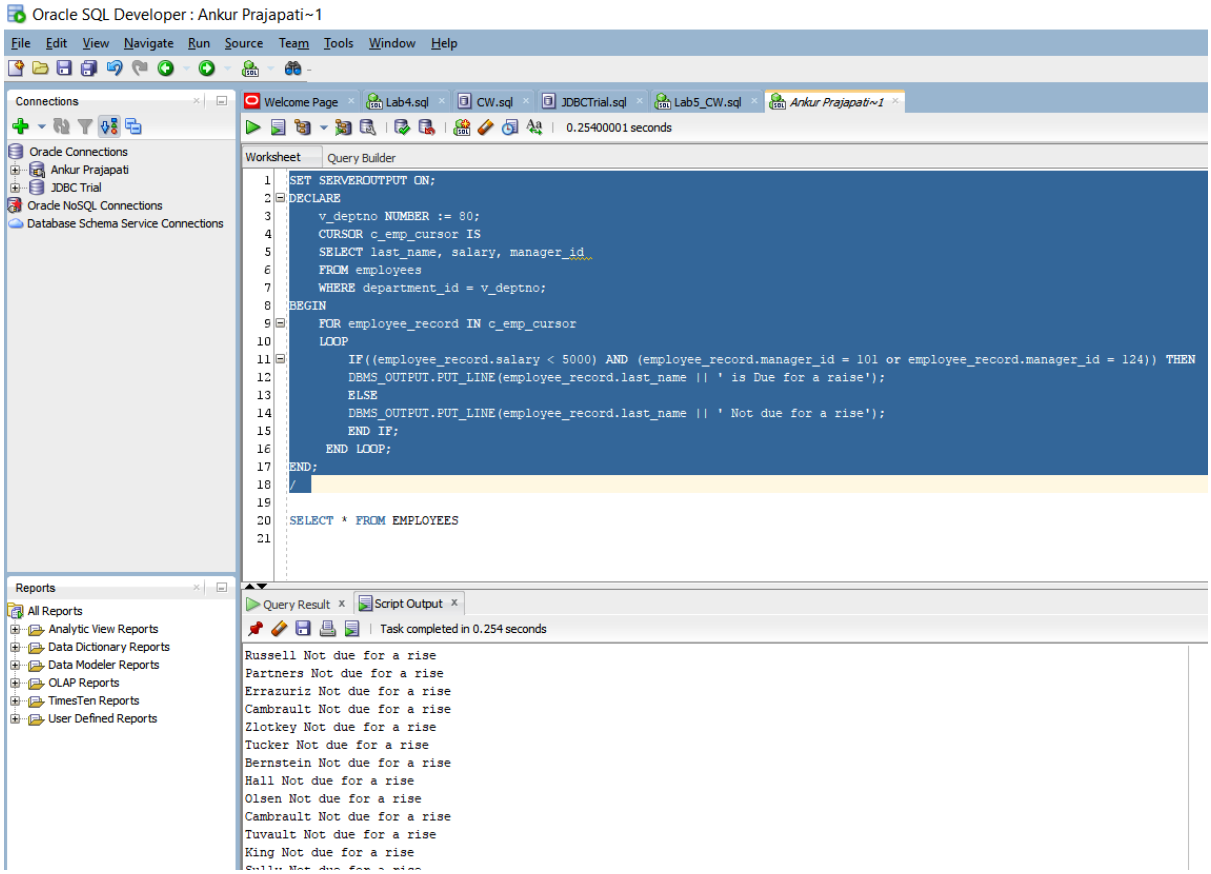
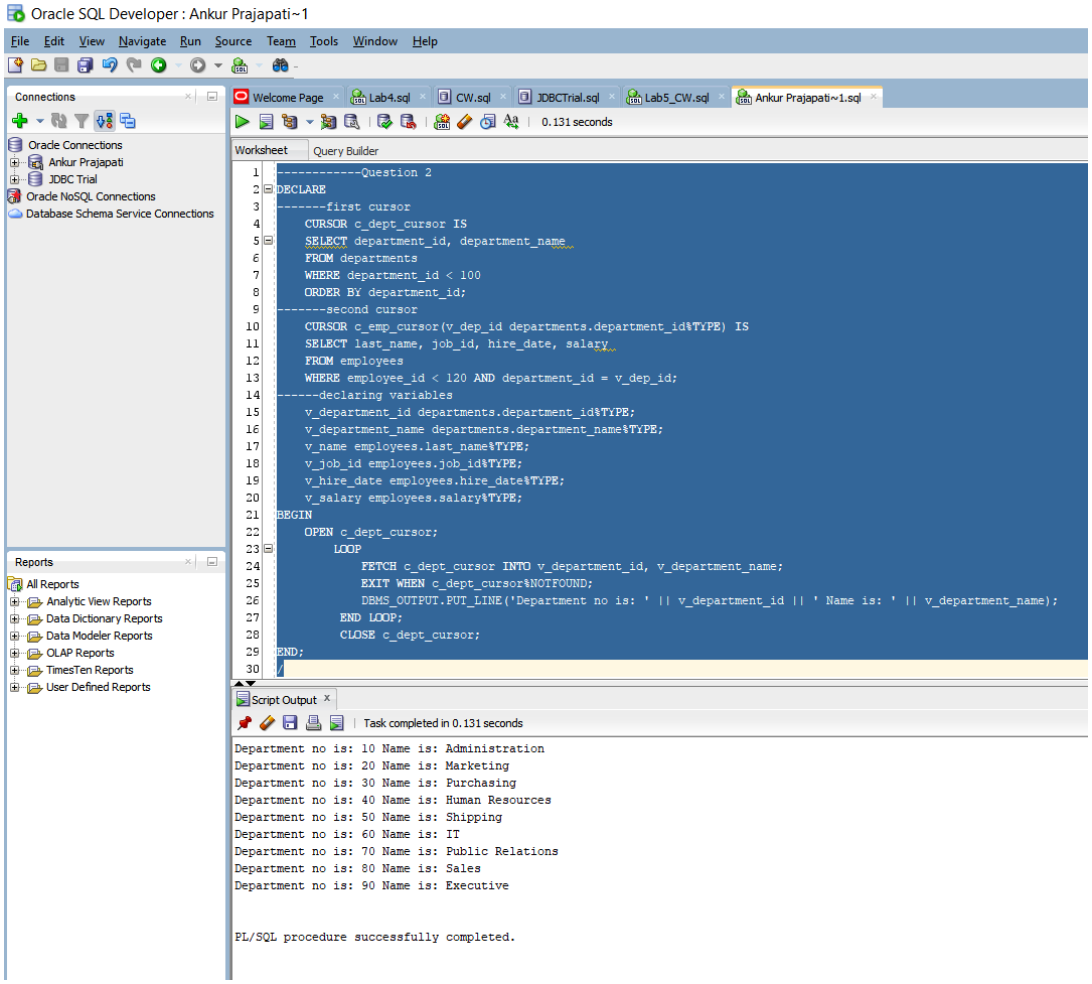




These above output shows for all the department id given in PDF.

Question 2:


Oracle SQL Developer : Ankur Prajapati~1
File Edit View Navigate Run Source Team Tools Window Help
Connections
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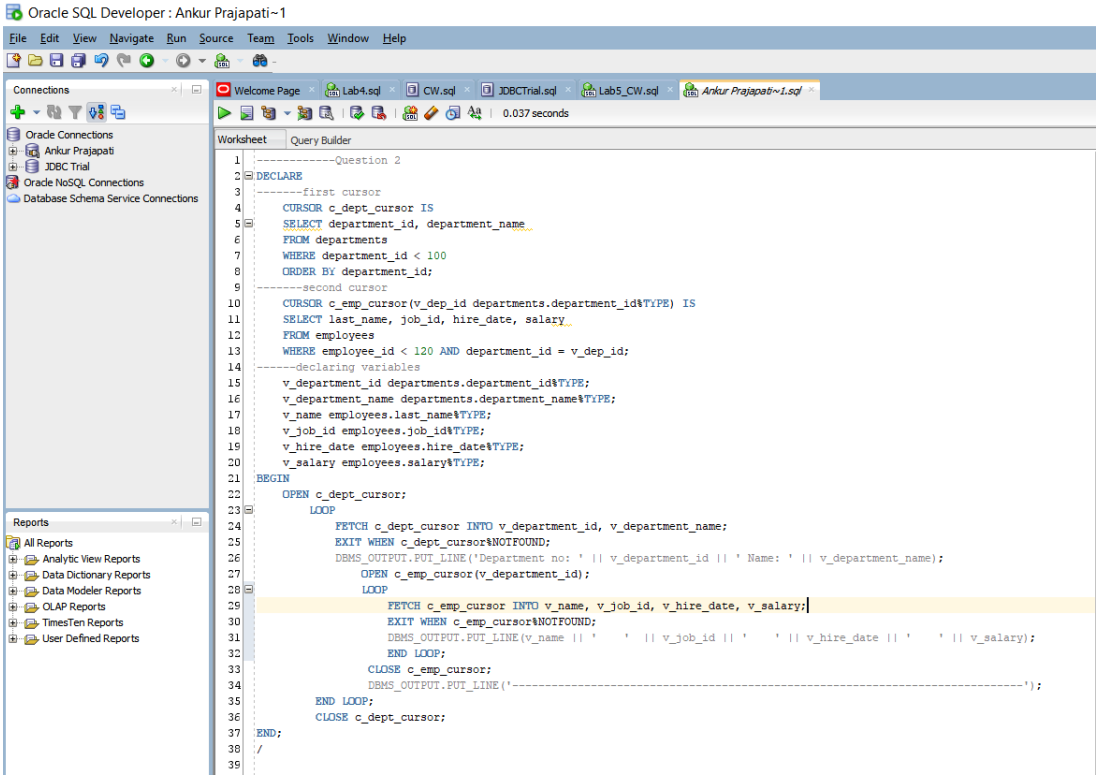
User Defined Reports
Welcome Page
Lab4.sql
CW.sql
JDBCTrial.sql
Lab5_CW.sql
Ankur Prajapati~1.sql
0.131 seconds
Worksheet
Query Builder
------------Question 2
DECLARE
-------first cursor
CURSOR c_dept_cursor IS
SELECT department_id, department_name
FROM departments
WHERE department_id < 100
ORDER BY department_id;
-------second cursor
CURSOR c_emp_cursor(v_dep_id departments.department_id%TYPE) IS
SELECT last_name, job_id, hire_date, salary
FROM employees
WHERE employee_id < 120 AND department_id = v_dep_id;
------declaring variables
v_department_id departments.department_id%TYPE;
v_department_name departments.department_name%TYPE;
v_name employees.last_name%TYPE;
v_job_id employees.job_id%TYPE;
v_hire_date employees.hire_date%TYPE;
v_salary employees.salary%TYPE;
BEGIN
OPEN c_dept_cursor;
LOOP
FETCH c_dept_cursor INTO v_department_id, v_department_name;
EXIT WHEN c_dept_cursor%NOTFOUND;
DBMS_OUTPUT.PUT_LINE('Department no is: ' || v_department_id || ' Name is: ' || v_department_name);
END LOOP;
CLOSE c_dept_cursor;
END;
/
Script Output
Task completed in 0.131 seconds
Department no is: 10 Name is: Administration
Department no is: 20 Name is: Marketing
Department no is: 30 Name is: Purchasing
Department no is: 40 Name is: Human Resources
Department no is: 50 Name is: Shipping
Department no is: 60 Name is: IT
Department no is: 70 Name is: Public Relations
Department no is: 80 Name is: Sales
Department no is: 90 Name is: Executive
PL/SQL procedure successfully completed.


Oracle SQL Developer : Ankur Prajapati~1
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Connections
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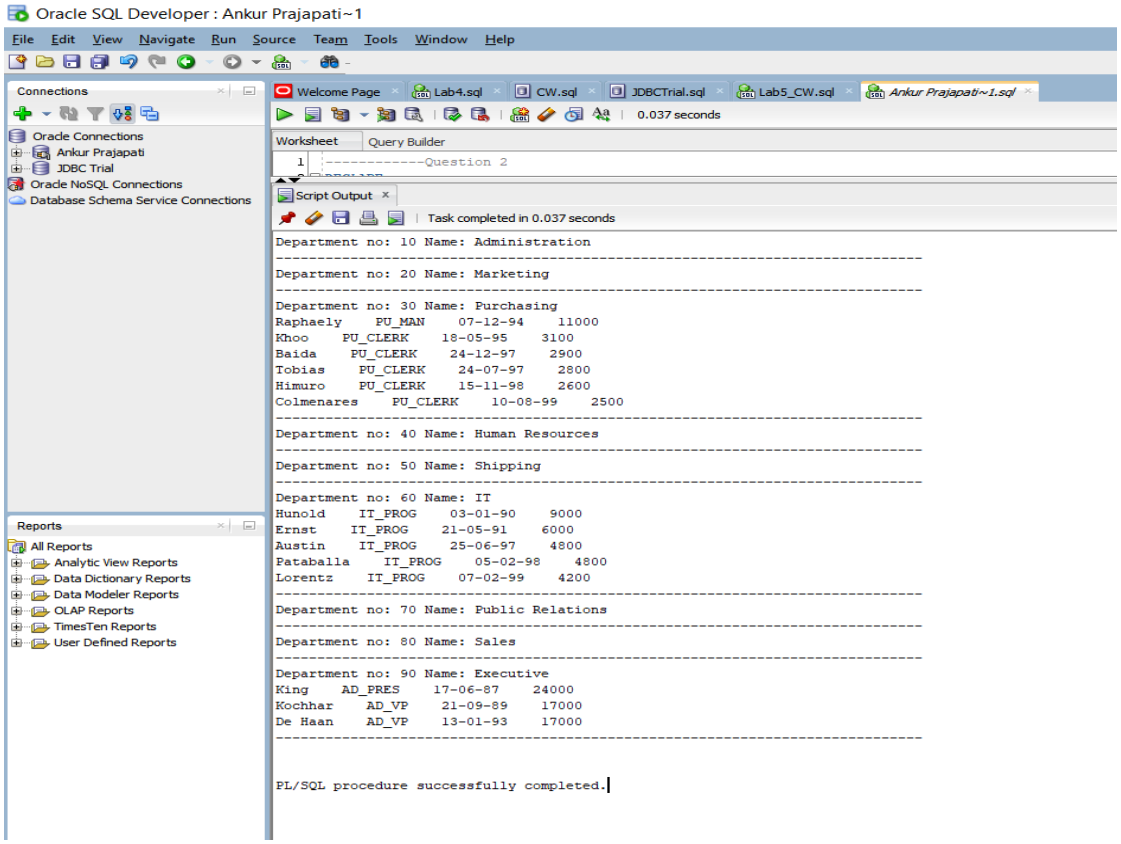
Ankur Prajapati~1.sql
0.037 seconds
Worksheet
Query Builder
------------Question 2
DECLARE
-------first cursor
CURSOR c_dept_cursor IS
SELECT department_id, department_name
FROM departments
WHERE department_id < 100
ORDER BY department_id;
-------second cursor
CURSOR c_emp_cursor(v_dep_id departments.department_id%TYPE) IS
SELECT last_name, job_id, hire_date, salary
FROM employees
WHERE employee_id < 120 AND department_id = v_dep_id;
------declaring variables
v_department_id departments.department_id%TYPE;
v_department_name departments.department_name%TYPE;
v_name employees.last_name%TYPE;
v_job_id employees.job_id%TYPE;
v_hire_date employees.hire_date%TYPE;
v_salary employees.salary%TYPE;
BEGIN
OPEN c_dept_cursor;
LOOP
FETCH c_dept_cursor INTO v_department_id, v_department_name;
EXIT WHEN c_dept_cursor%NOTFOUND;
DBMS_OUTPUT.PUT_LINE('Department no: ' || v_department_id || ' Name: ' || v_department_name);
OPEN c_emp_cursor(v_department_id);
LOOP
FETCH c_emp_cursor INTO v_name, v_job_id, v_hire_date, v_salary;
EXIT WHEN c_emp_cursor%NOTFOUND;
DBMS_OUTPUT.PUT_LINE(v_name || ' ' || v_job_id || ' ' || v_hire_date || ' ' || v_salary);
END LOOP;
CLOSE c_emp_cursor;
DBMS_OUTPUT.PUT_LINE('----------');
END LOOP;
CLOSE c_dept_cursor;
END;
/

First, I declared cursor named c_dept_cursor which selects multiple rows where department id is less than 100. After that I declared second cursor named c_emp_cursor having parameter of v_dep_id which is having same data type of department_id column of department table.

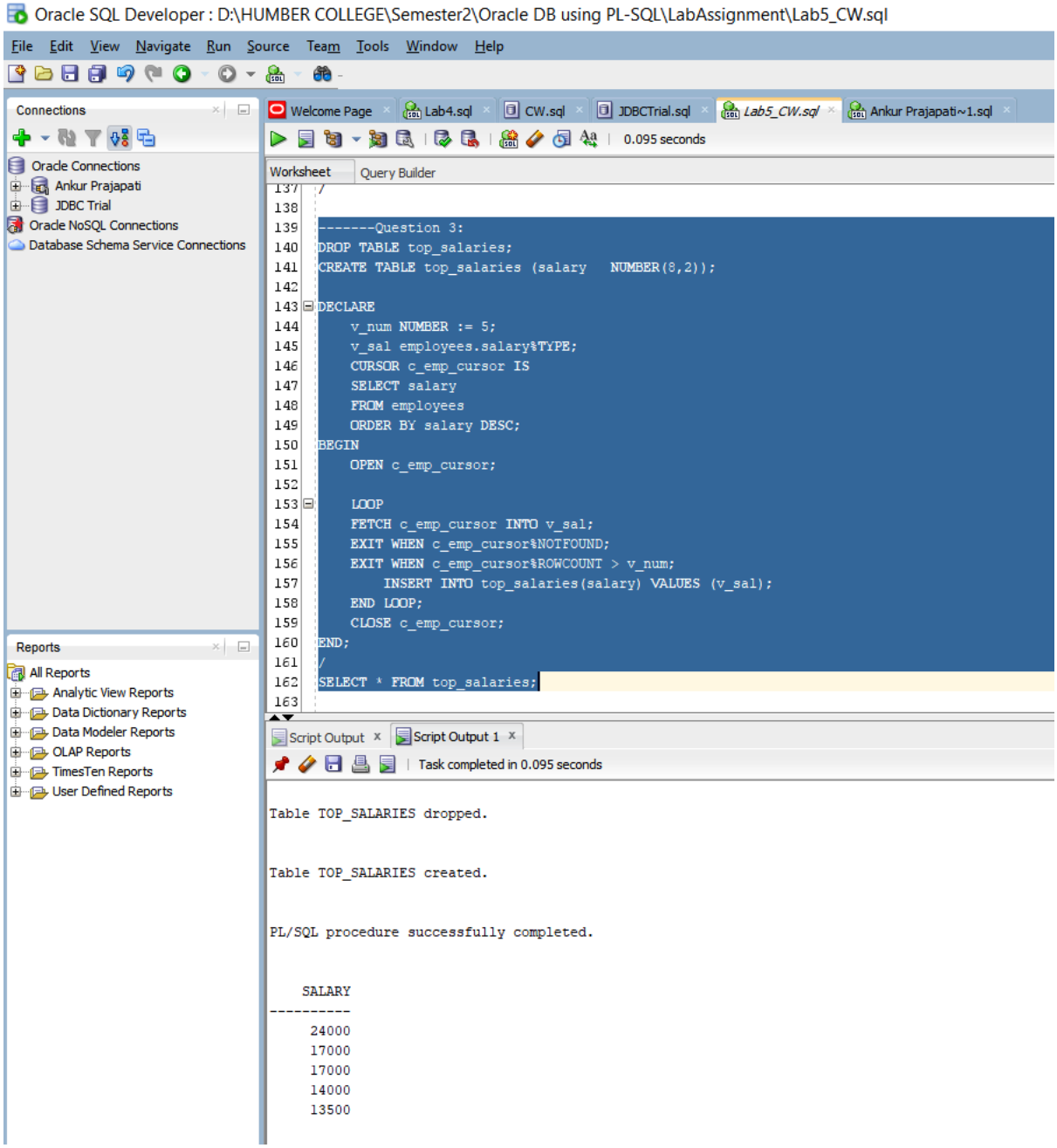
After that I have declared variables as asked in PDF which will be used to print the output.

In Executable part I have opened c_dept_cursor and IN LOOP it fetches data from allocated data and if its not found then it will exit. When this cursor is opened, I opened another cursor c_emp_cursor with the parameter v_department_id and it fetches data and print it. If not found it will exit. It close Loop first and after that c_emp_cursor and after that it closes c_dept_cursor.

Output:

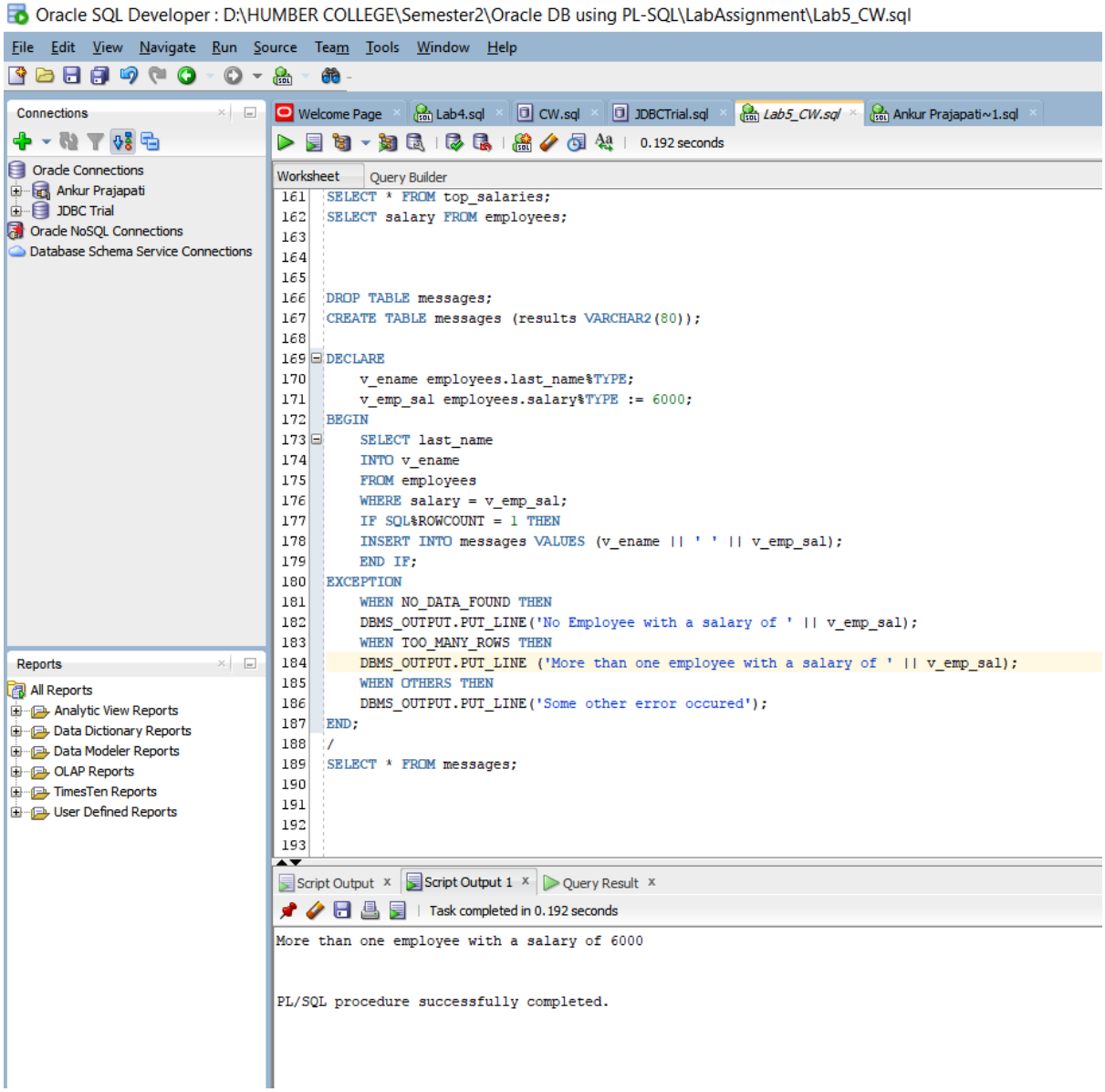


Practice 2:



Here, I have created top_salaries table and declared cursor named c_emp_cursor which selects rows from employees table and orders it by salary in descending order. In executable section I am opening c_emp_cursor and in LOOP I am fetching it into v_sal variable where it stores the top 5 salaries. If c_emp_cursor is not found it will exit and if the %ROWCOUNT is grater than v_sal it will exit. At the end I closed the c_emp_cursor and used SELECT statement to print the top 5 salaries.

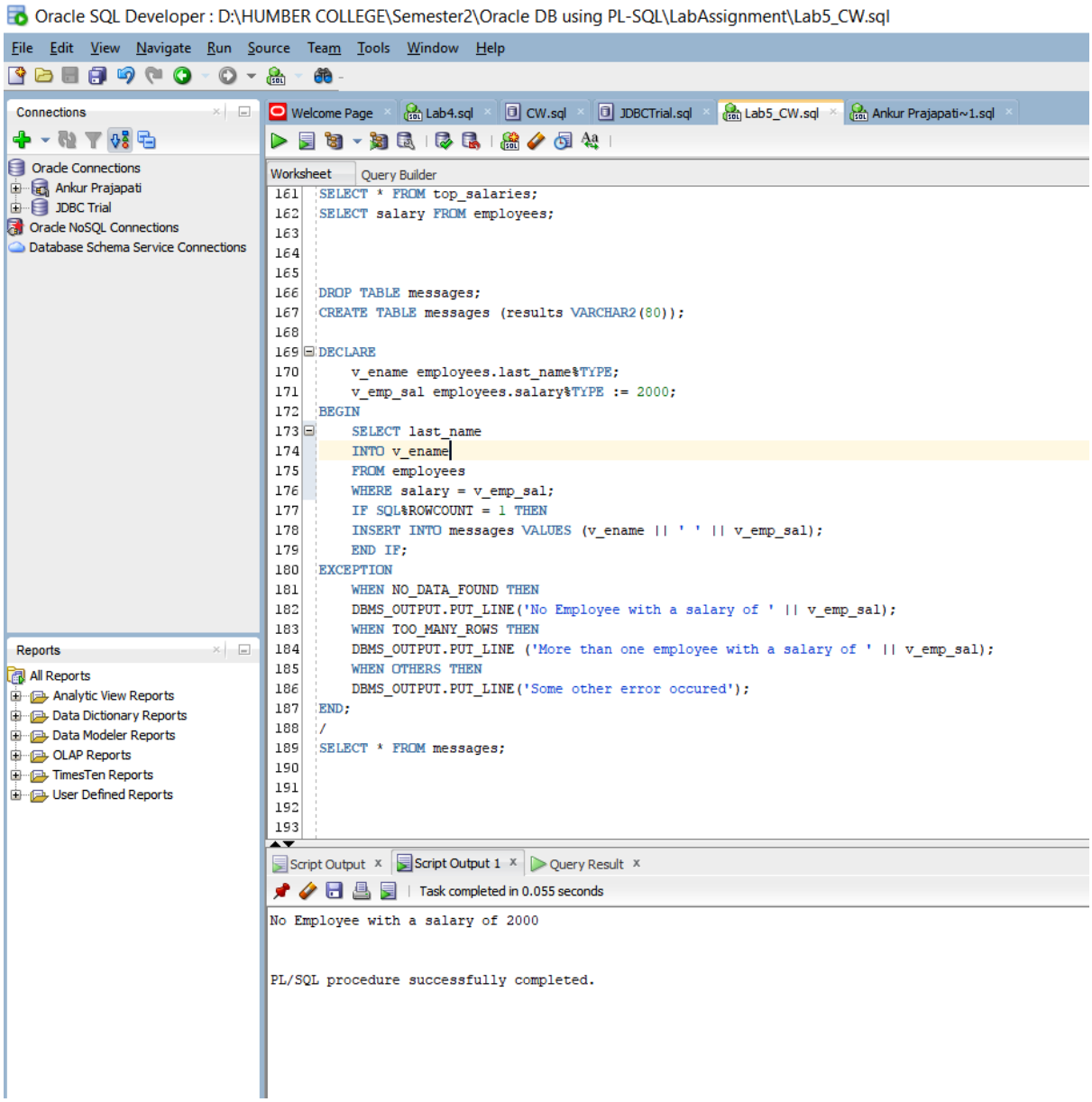
Practice 3:



In declaration section v_emp_salary of employees.salary type is declared and initialized with 6000. Where in executable section it selects the row as per select statement and IF SQL%ROWCOUNT is 1 it will insert the sleceted data into message table.

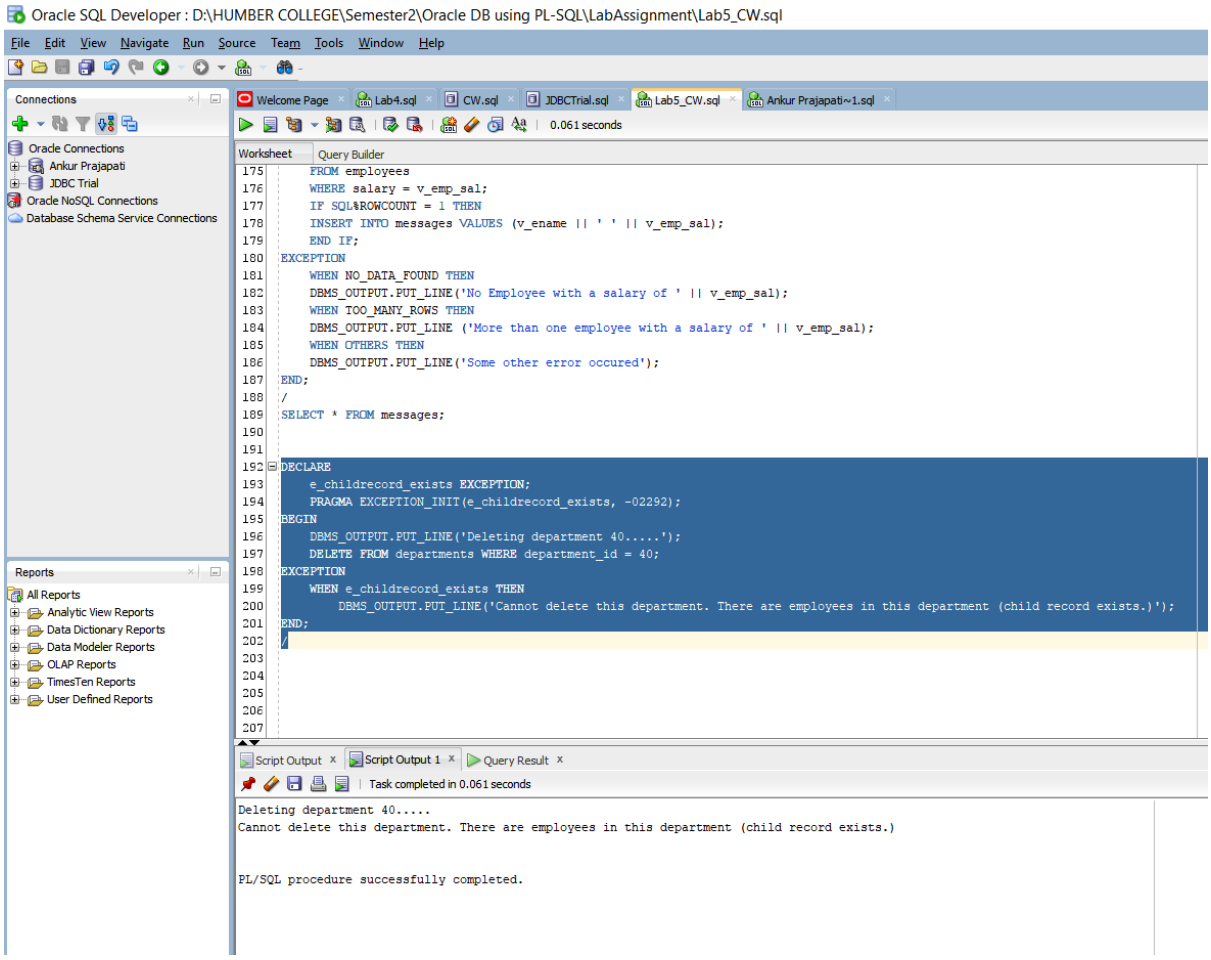
In Exception section, there are three exceptions if the data is not found it will print, the message stored in NO_DATA_FOUND exception. If there are many rows then it will print the message stored in exception called TOO_MANY_ROWS. Suppose, anything else than these exceptions occurs it will show the exception message stored in OTHERS.

Note that here NO_DATA_FOUND and TOO_MANY ROWS are predefined exceptions of Orcale.



In here it prints message stored in exception NO_DATA_FOUND. Because there are no data with the salary 2000.

Practice 4:



Here in declaration section I have declared e_childrecord_exists as an Exception. I used PRAGMA to link the declared exception with error code -2292. In executable section I am trying to delete data from departments tabloe where department id is 40. In Exception section I am printing the output message associated with that exception.