NAME:- SHUBHAM SAXENA

REG No:- RA1811003010691 SEC:- D2 DATE:- 27/4/2021

DDL WORKSHEET-XIII

I. Write a trigger to ensure that no employee of age less than 25 can be inserted in the database.

```
F:\Downloads\ORACLE CLIENT 11.2\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe
SQL> CREATE TRIGGER CHECK_AGE BEFORE INSERT ON EMP
  2  FOR EACH ROW
  3  BEGIN
  4  IF NEW.AGE < 25 THEN
  5  SIGNAL SQLSTATE '45000'
  6  SET MESSAGE_TEXT = 'ERROR:
  7  AGE MUST BE AT LEAST 25 YEARS!';
  8  END IF;
  9  END;
 10  /

Warning: Trigger created with compilation errors.
```

II. Create a trigger which will work before deletion in employee table and create a duplicate copy of the record in another table employee_old.

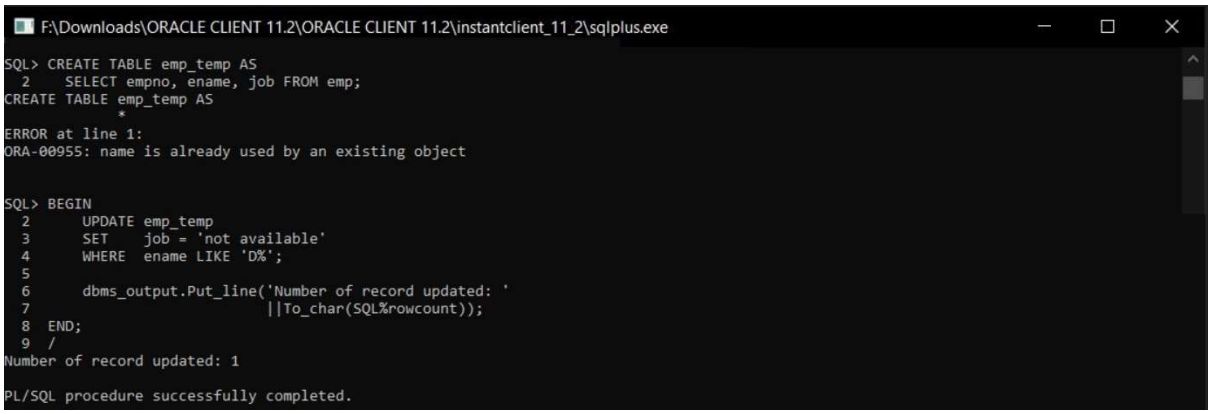
```
F:\Downloads\ORACLE CLIENT 11.2\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe
SQL> create table employee_backup(empno number(5),
  2  ename varchar(20), job varchar(40),
  3  hiredate date, salary number(8),
  4  primary key(empno));

Table created.

SQL> create trigger backup before delete on emp
  2  for each row
  3  begin
  4  insert into employee_backup
  5  values (emp.empno, emp.ename, emp.job, emp.hiredate, emp.salary);
  6  end;
  7  /

Warning: Trigger created with compilation errors.
```

III. Write a trigger to count number of new tuples inserted using each insert statement.

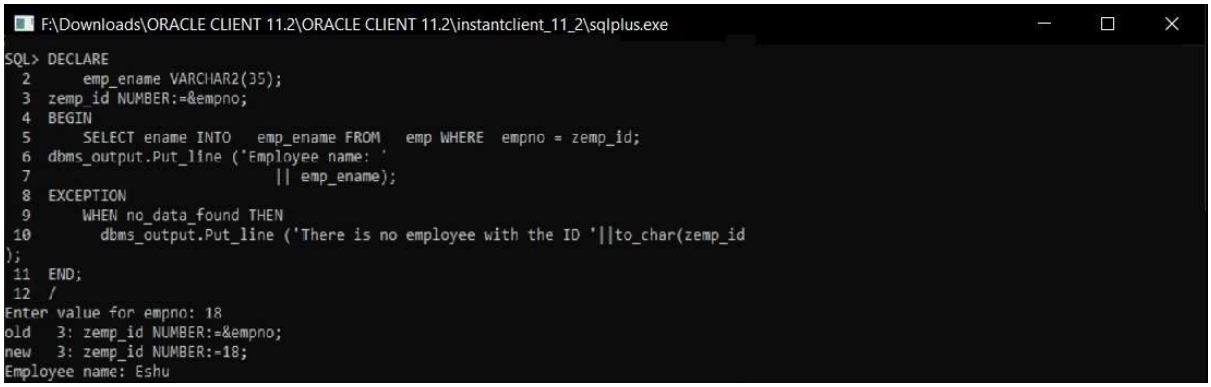
```
F:\Downloads\ORACLE CLIENT 11.2\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe
SQL> CREATE OR REPLACE TRIGGER trg
  2     AFTER INSERT
  3     ON EMP
  4     FOR EACH ROW
  5
  6     DECLARE
  7      val number;
  8     BEGIN
  9       SELECT COUNT(*)
 10       INTO val
 11       FROM EMP;
 12
 13     DBMS_OUTPUT.PUT_LINE('TABLE COUNT AFTER INSERT = '||val);
 14
 15     END;
 16     /

Trigger created.
```

IV. Write a program in PL/SQL to find the number of rows effected by the use of SQL%ROWCOUNT attributes of an implicit cursor.

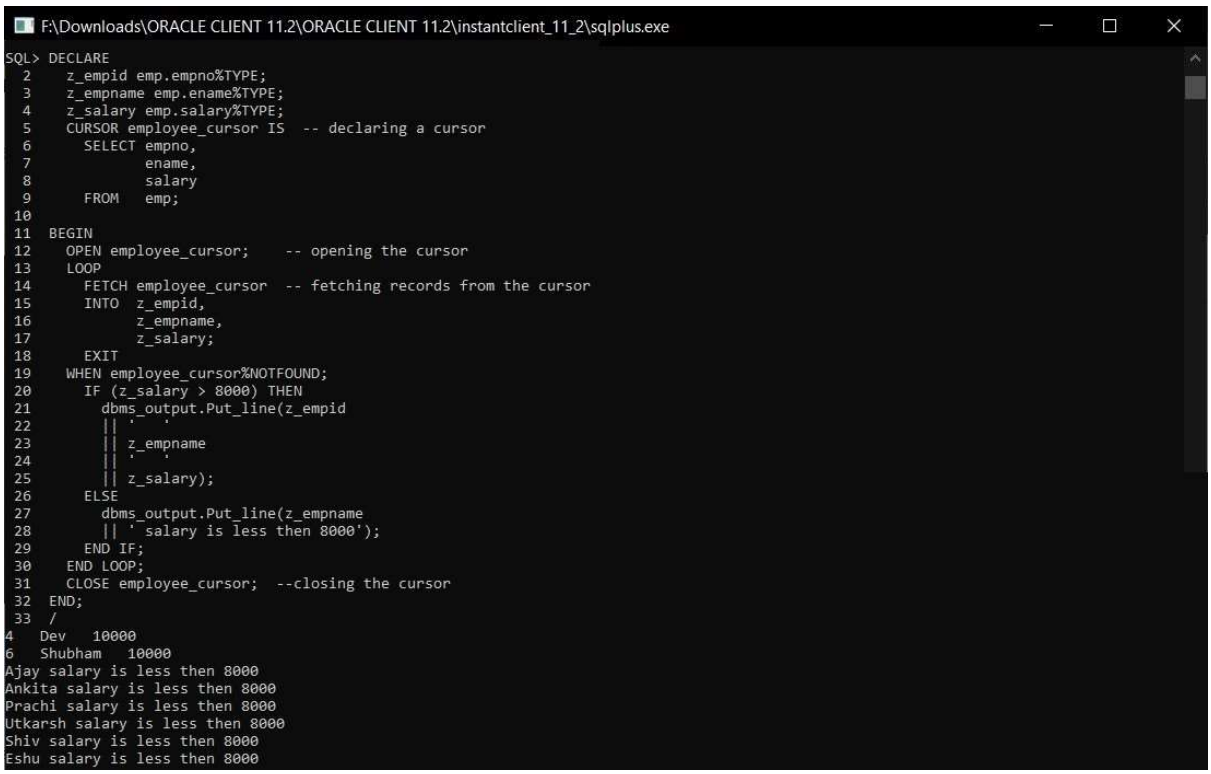
```
F:\Downloads\ORACLE CLIENT 11.2\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe
SQL> set serveroutput on;
SQL> CREATE TABLE emp_temp AS
  2    SELECT empno, ename, job FROM emp;

Table created.

SQL> BEGIN
  2      UPDATE emp_temp
  3      SET    job = 'not available'
  4      WHERE  ename LIKE 'B%';
  5
  6      dbms_output.Put_line('Number of record updated: '
  7                           ||To_char(SQL%rowcount));
  8  END;
  9  /
Number of record updated: 0

PL/SQL procedure successfully completed.
```



V. Write a program in PL/SQL to show the uses of implicit cursor without using any attribute.



VI. Write a program in PL/SQL to retrieve the records from the employees table and display them using cursors.



VII. Create a PL/SQL block to increase salary of employees in the department 20 using explicit cursor.

```
F:\Downloads\ORACLE CLIENT 11.2\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe

SQL> DECLARE
  2      CURSOR emp2 IS
  3        SELECT empno,
  4               salary
  5        FROM   emp
  6        WHERE  deptno = 20
  7        FOR UPDATE;
  8      incr_sal NUMBER;
  9  BEGIN
 10       FOR emp IN emp2 LOOP
 11          IF emp.salary < 15000 THEN
 12            incr_sal := .15;
 13  ELSE
 14            incr_sal := .10;
 15          END IF;
 16  UPDATE emp
 17          SET    salary = salary + salary * incr_sal
 18          WHERE  CURRENT OF emp2;
 19  END LOOP;
 20  END;
 21  /

PL/SQL procedure successfully completed.
```

VIII. Write a program in PL/SQL to print a list of managers and the name of the departments (explicit).

```
F:\Downloads\ORACLE CLIENT 11.2\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe

SQL> DECLARE
  2    CURSOR cur_mgr IS
  3        SELECT ENAME,
  4               DEP
  5        FROM emp e
  6        INNER JOIN DEPT d ON d.ID = e.DEPTNO;
  7
  8    v_mgr cur_mgr%ROWTYPE;
  9  BEGIN
 10    OPEN cur_mgr;
 11    LOOP
 12      FETCH cur_mgr INTO v_mgr;
 13      EXIT WHEN cur_mgr%NOTFOUND;
 14      DBMS_OUTPUT.PUT_LINE(v_mgr.DEP || ' :: ' ||
 15                           v_mgr.ENAME);
 16    END LOOP;
 17    CLOSE cur_mgr;
 18  END;
 19  /
Analysis :: Shubham
Analysis :: Ajay
Analysis :: Ankita
Testing :: Prachi

PL/SQL procedure successfully completed.
```

XI. Write a program in PL/SQL to create a cursor displays the name and salary of each employee in the EMPLOYEES table whose salary is less than that specified by a passed-in parameter value.

```
F:\Downloads\ORACLE CLIENT 11.2\ORACLE CLIENT 11.2\instantclient_11_2\sqlplus.exe

SQL> DECLARE
  2     ename emp.ename%type;
  3     salary emp.salary%type;
  4     CURSOR emp1 is
  5        SELECT ename,salary FROM emp  where salary < 25000;
  6  BEGIN
  7     OPEN emp1;
  8     LOOP
  9     FETCH emp1 into ename,salary;
 10        EXIT WHEN emp1%notfound;
 11        dbms_output.put_line(ename || ' ' ||salary);
 12     END LOOP;
 13     CLOSE emp1;
 14  END;
 15  /
Dev 11500
Shubham 10000
Ajay 5000
Ankita 4000
Prachi 8000
Utkarsh 8050
Shiv 6325
Eshu 8050

PL/SQL procedure successfully completed.
```

X. Write a PL/SQL block to find the name and salary of first five highest paid salaries using explicit cursor.