Database Assignment:

* create database tops\_training;
* create table Emp\_Table(

Empno int NOT NULL PRIMARY KEY,

Ename varchar(10),

Job varchar(9),

Mgr int,

Hiredate date,

Sal decimal(7,2),

Comm decimal(7,2),

Deptno int,

FOREIGN KEY (Deptno) REFERENCES Dept\_Table(Deptno));

* create table Dept\_Table(

Deptno int NOT NULL PRIMARY KEY,

Dname varchar(14),

Loc varchar(13)

);

* create table Students\_Table(

Rno int NOT NULL PRIMARY KEY,

Sname varchar(14),

City varchar(20),

State Varchar(20)

);

* create table EMP\_LOG\_TABLE(

Emp\_id int,

Log\_date Date,

New\_salary Int,

Action Varchar(20)

);

* INSERT INTO Dept\_Table (Deptno, Dname, Loc) VALUES (40, 'OPERATIONS', 'BOSTON');
* select \* from Dept\_Table;
* INSERT INTO Emp\_Table (Empno, Ename, Job, Mgr, Hiredate, Sal, Comm, Deptno)

VALUES (7934,'MILLER','CLERK',7782,'1982-01-23',1300.00, NULL ,10);

* select \* from Emp\_Table;

i. Select unique job from EMP table.

Query: SELECT DISTINCT job FROM emp\_table;

ii. List the details of the emps in asc order of the Dptnos and desc of Jobs?

Query: SELECT \* FROM emp\_table ORDER BY Deptno ASC, Job DESC;

iii. Display all the unique job groups in the descending order?

Query: SELECT DISTINCT Job FROM emp\_table ORDER BY Job DESC;

iv. List the emps who joined before 1981.

Query: SELECT \* FROM emp\_table WHERE EXTRACT(YEAR FROM Hiredate) < 1981;

v. List the Empno, Ename, Sal, Daily sal of all emps in the asc order of Annsal.

Query: SELECT Empno, Ename, Sal, Sal/365 AS "Daily sal", Sal \* 12 AS Annsal FROM emp\_table ORDER BY Annsal ASC;

vi. List the Empno, Ename, Sal, Exp of all emps working for Mgr 7369.

Query: SELECT e.Empno, e.Ename, e.Sal, EXTRACT(YEAR FROM sysdate()) - EXTRACT(YEAR FROM e.Hiredate) AS Exp FROM emp\_table e

JOIN emp\_table m ON e.Mgr = m.Empno WHERE m.Empno = 7369;

vii. Display all the details of the emps who’s Comm. Is more than their Sal?

Query: SELECT \* FROM emp\_table WHERE Comm > Sal;

viii. List the emps who are either ‘CLERK’ or ‘ANALYST’ in the Desc order.

Query: SELECT \* FROM emp\_table WHERE Job IN ('CLERK', 'ANALYST')

ORDER BY Job DESC;

ix. List the emps Who Annual sal ranging from 22000 and 45000.

Query: SELECT Empno, Ename, Sal, Sal \* 12 AS Annsal FROM emp\_table

WHERE Sal \* 12 BETWEEN 22000 AND 45000;

x. List the Enames those are starting with ‘S’ and with five characters.

Query: SELECT Ename FROM emp\_table WHERE Ename LIKE 'S\_\_\_\_';

xi. List the emps whose Empno not starting with digit78.

Query: SELECT \* FROM emp\_table WHERE Empno NOT LIKE '78%';

xii. List all the Clerks of Deptno 20.

Query: SELECT \* FROM emp\_table WHERE Job = 'CLERK' AND

Deptno = 20;

xiii. List the Emps who are senior to their own MGRS.

Query: SELECT e.\* FROM emp\_table e JOIN emp\_table m ON

e.Mgr = m.Empno WHERE e.Hiredate < m.Hiredate;

xiv. List the Emps of Deptno 20 who’s Jobs are same as Deptno10.

Query: SELECT e.\* FROM emp\_table e JOIN emp\_table d10 ON e.Job = d10.Job WHERE e.Deptno = 20 AND d10.Deptno = 10;

xv. List the Emps who’s Sal is same as FORD or SMITH in desc order of Sal.

Query: SELECT Empno, Ename, Sal FROM emp\_table

WHERE Sal = (SELECT Sal FROM emp\_table WHERE Ename = 'FORD')

UNION SELECT Empno, Ename, Sal FROM emp\_table

WHERE Sal = (SELECT Sal FROM emp\_table WHERE Ename = 'SMITH')

ORDER BY Sal DESC;

xvi. List the emps whose jobs same as SMITH or ALLEN.

Query: SELECT \* FROM emp\_table WHERE Job IN ('SMITH', 'ALLEN');

xvii. Any jobs of deptno 10 those that are not found in deptno 20.

Query: SELECT d10.job FROM emp\_table d10

LEFT JOIN emp\_table d20 ON d10.job = d20.job AND d20.deptno = 20

WHERE d10.deptno = 10 AND d20.job IS NULL;

xviii. Find the highest sal of EMP table.

Query: SELECT MAX(sal) AS max\_salary FROM emp\_table;

xix. Find details of highest paid employee.

Query: SELECT \* FROM emp\_table WHERE sal = (SELECT MAX(sal)

FROM emp\_table);

xx. Find the total sal given to the MGR.

Query: SELECT SUM(Sal) AS TotalSalary FROM emp\_table

WHERE Job = 'MGR';

xxi. List the emps whose names contains ‘A’.

Query: SELECT \* FROM emp\_table WHERE Ename LIKE '%A%';

xxii. Find all the emps who earn the minimum Salary for each job wise in ascending order.

Query: SELECT Job, Empno, Sal FROM emp\_table e

WHERE Sal = (SELECT MIN(Sal) FROM emp\_table WHERE Job = e.Job)

ORDER BY Job ASC;

xxiii. List the emps whose sal greater than Blake’s sal.

Query: SELECT Empno, Ename, Sal FROM emp\_table WHERE Sal > (

SELECT Sal FROM emp\_table WHERE Ename = 'Blake');

xxiv. Create view v1 to select ename, job, dname, loc whose deptno are same.

Query: CREATE VIEW v1 AS SELECT e.ename AS ename, e.job AS job, d.dname AS dname, d.loc AS loc FROM emp\_table e JOIN dept\_table d ON e.deptno = d.deptno WHERE e.deptno IN (SELECT deptno FROM emp\_table

GROUP BY deptno HAVING COUNT(\*) > 1);

xxv. Add column Pin with bigint data type in table student.

Query: ALTER TABLE Student ADD Pin BIGINT;

xxvi. Modify the student table to change the sname length from 14 to 40. Create trigger to insert data in emp\_log table whenever any update of sal in EMP table. You can set action as ‘New Salary’.

Query: CREATE TRIGGER emp\_salary\_update\_trigger

AFTER UPDATE ON EMP

FOR EACH ROW

BEGIN

IF OLD.sal <> NEW.sal THEN

INSERT INTO emp\_log (empno, action)

VALUES (NEW.empno, 'New Salary');

END IF;

END //

DELIMITER ;