

Module-3

Module-3 (RDBMS & DATABASE PROGRAMMING WITH JDBC)

- CREATE TABLE 1:-

```
CREATE TABLE table1
(
  Empno int(4) PRIMARY KEY AUTO_INCREMENT,
  Ename varchar(10) ,
  Job varchar(9) ,
  Mgr int(4) ,
  Hiredate date ,
  Sal decimal(7,2) ,
  Comm decimal(7,2),
  Deptno int(2) ,
)
```

- CREATE DEPT TABLE :-

```
REATE TABLE dept
(
  Deptno int(2) PRIMARY KEY,
  Dname varchar(14) ,
  Loc varchar(13) ,
)
```

- CREATE STUDENT TABLE :-

```
REATE TABLE student
(
  Rno int(2) PRIMARY KEY;
  Sname varchar(14) ;
  City varchar(20) ;
  State varchar(20) ;
)
```

Module-3

- EMP LOG TABLE:-

```
REATE TABLE emp log
(
  Field int(5),
  Log_date date ,
  New_salary int(10) ,
  Action varchar(20) ,
)
```

- DEPT TABLE DATA :-

CREATE TABLE

```
CREATE TABLE dept data(
  Deptno int(10) ,
  dname varchar(20) ,
  loc varchar(20) ,
)
```

INSERT DATA

```
INSERT INTO deptdata (Deptno,dname,loc) Values(10,ACCOUNTING,NEW YORK);
```

```
INSERT INTO deptdata (Deptno,dname,loc) Values(20,RESEARCH,DALLAS);
```

```
INSERT INTO deptdata (Deptno,dname,loc) Values(30,SALES,CHICAGO);
```

```
INSERT INTO deptdata (Deptno,dname,loc) Values(40,OPERATIONS,BOSTON);
```

- EMP TABLE DATA :-

```
REATE TABLE empdata
(
  EMPNO int(10) ,
  ename varchar(20) ,
  job varchar(20) ,
  mgr varchar(15) ,
  hiredate varchar(20) ,
  sal varchar(15) ,
  comm varchar(15) ,
  deptno int(10) ,
)
```

Module-3

1. Select unique job from EMP table

```
SELECT DISTINCT job FROM EMP;
```

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

```
SELECT * FROM EMP ORDER BY deptno ASC, job DESC;
```

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

```
SELECT DISTINCT job FROM EMP ORDER BY job DESC;
```

4. List the emps who joined before 1981.

```
SELECT * FROM EMP WHERE hiredate < '1981-01-01';
```

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

```
SELECT Empno, Ename, Sal, Sal/365 AS Daily_Sal FROM EMP ORDER BY Sal/365 ASC;
```

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

```
SELECT Empno, Ename, Sal, (SYSDATE - hiredate) AS Experience  
FROM EMP WHERE mgr = 7369;
```

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

```
SELECT * FROM EMP WHERE comm > sal;
```

8. List the emps who are either 'CLERK' or 'ANALYST' in the Desc order

```
SELECT * FROM EMP WHERE job IN ('CLERK', 'ANALYST') ORDER BY job DESC;
```

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

```
SELECT * FROM EMP WHERE sal*12 BETWEEN 22000 AND 45000
```

10. List the Enames those are starting with 'S' and with five characters.

```
SELECT Ename FROM EMP WHERE Ename LIKE 'S_____';
```

11. List the emps whose Empno not starting with digit 78

```
SELECT * FROM EMP WHERE NOT REGEXP_LIKE(Empno, '^78');
```

12. List all the Clerks of Deptno 20.

```
SELECT * FROM EMP WHERE job = 'CLERK' AND deptno = 20;
```

13. List the Empls who are senior to their own MGRS

```
SELECT * FROM EMP WHERE hiredate < (SELECT hiredate FROM EMP E2 WHERE  
E1.mgr = E2.empno);
```

Module-3

14. List the Emps of Deptno 20 who's Jobs are same as Deptno10

```
SELECT * FROM EMP E1
```

```
WHERE deptno = 20 AND job IN (SELECT DISTINCT job FROM EMP WHERE deptno = 10);
```

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

```
SELECT * FROM EMP WHERE sal IN (SELECT sal FROM EMP WHERE ename IN ('FORD', 'SMITH')) ORDER BY sal DESC;
```

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

```
SELECT * FROM EMP WHERE job IN (SELECT job FROM EMP WHERE ename IN ('SMITH', 'ALLEN'));
```

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

```
SELECT DISTINCT job FROM EMP WHERE deptno = 10 AND job NOT IN (SELECT job FROM EMP WHERE deptno = 20);
```

18. Find the highest sal of EMP table

```
SELECT MAX(sal) AS highest_sal FROM EMP;
```

19. Find details of highest paid employee.

```
SELECT * FROM EMP WHERE sal = (SELECT MAX(sal) FROM EMP);
```

20. Find the total sal given to the MGR

```
SELECT mgr, SUM(sal) AS total_sal FROM EMP GROUP BY mgr;
```

21. List the emps whose names contains 'A'.

```
SELECT * FROM EMP WHERE LOWER(ename) LIKE '%a%';
```

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

```
SELECT job, MIN(sal) AS min_sal FROM EMP GROUP BY job ORDER BY min_sal ASC;
```

23. List the emps whose sal greater than Blake's sal.

```
SELECT * FROM EMP WHERE sal > (SELECT sal FROM EMP WHERE ename = 'BLAKE');
```

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

```
CREATE VIEW v1 AS
```

```
SELECT e.ename, e.job, d.dname, d.loc
```

```
FROM EMP e
```

```
JOIN DEPT d ON e.deptno = d.deptno;
```

Module-3

25. Create a procedure with dno as input parameter to fetch ename and dname.

```
CREATE OR REPLACE PROCEDURE GetEmpDetails(p_deptno NUMBER) AS
BEGIN
    SELECT ename, dname
    INTO OUT_EMP_NAME, OUT_DEPT_NAME
    FROM EMP e
    JOIN DEPT d ON e.deptno = d.deptno
    WHERE e.deptno = p_deptno;
END;
```

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

```
ALTER TABLE student ADD pin BIGINT;
```

27. Modify the student table to change the sname length from 14 to 40.

-- Modify the column length

```
ALTER TABLE student MODIFY sname VARCHAR2(40);
```