Assignment – 9

1. Create view V_MARKS with roll no, student name, subject code, marks of all CSE students.

CREATE VIEW V_MARKS AS SELECT st.RollNo, st.Name AS "Student Name",
r.Sub_code AS
"Subject Code", r.Marks AS "Marks" FROM RESULT2078 r JOIN STUDENT2078 st
ON r.RollNo
= st.RollNo WHERE st.DeptCode = 'CSE';

```
SQL> select * from V_MARKS;

    ROLLNO Student Name          Subject      Marks
---------- -------------------- -------- ----------
      1001 ANKIT DAS             CS501           68
      1002 MOINAK GHOSH          CS501           76
      1003 PARIMAL KUMAR         CS501           91
      1001 ANKIT DAS             CS502           40
      1002 MOINAK GHOSH          CS502           81
      1003 PARIMAL KUMAR         CS502           82
      1023 SAMPRIKTA BISWAS      CS301           92
      1029 NAITIK PRASAD         CS301           83
      1500 SUBARNA MITRA         CS301           65
      1023 SAMPRIKTA BISWAS      CS302           80
      1029 NAITIK PRASAD         CS302           76

    ROLLNO Student Name          Subject      Marks
---------- -------------------- -------- ----------
      1500 SUBARNA MITRA         CS302           40

12 rows selected.
```

2. Create view V_CLASSTAKEN with subject code, subject name, Faculty code, faculty name where the subject is taught by that faculty.

CREATE VIEW V_CLASSTAKEN AS SELECT s.SubjectCode, s.SubjectName, f.FID AS
FacultyCode, f.Name AS FacultyName FROM SUBJECT2078 s JOIN FACULTY2078 f
ON
s.Teacher = f.FID;

```
SQL> select * from V_CLASSTAKEN;

SUBJECTC SUBJECTNAME                        FACU FACULTYNAME
-------- ---------------------------------- ---- --------------------
CS301    Data Structure                     F01  Aloke Kumar Dutta
CS302    Computer Organization              F02  Abhijit Roy
CS501    Discrete Mathematics               F03  Probal Kumar
CS502    Data Communication                 F04  Mousumi Dey
ECS501   Data Base systems                  F05  Sharmistha Nag
EC501    Analog Signals                     F06  Dipti Bhattacharyya
CS503    Operating Systems                  F07  Sanjay Kumar Das

7 rows selected.
```

3. Create view V_SUBJECT with subject_code, subject_name, teacher name where number of student in the subject is more than 1.

CREATE VIEW V_SUBJECT AS SELECT s.SubjectCode, s.SubjectName, f.Name AS TeacherName
FROM SUBJECT2078 s JOIN FACULTY2078 f ON s.Teacher = f.FID WHERE s.SubjectCode IN
(SELECT Sub_Code FROM RESULT2078 GROUP BY Sub_Code HAVING COUNT(DISTINCT
RolLNo) > 1);

```
SQL> select * from V_SUBJECT;

SUBJECTC SUBJECTNAME                      TEACHERNAME
-------- -------------------------------- --------------------
CS301    Data Structure                   Aloke Kumar Dutta
CS302    Computer Organization            Abhijit Roy
CS501    Discrete Mathematics             Probal Kumar
CS502    Data Communication               Mousumi Dey
ECS501   Data Base systems                Sharmistha Nag
```

4. Create view V_STUDENT with student name, roll number, department who appeared in at least one examination.

CREATE VIEW V_STUDENT AS
SELECT s.Name AS student_name, s.RollNo AS roll_number, d.DeptName AS department
FROM STUDENT2078 s JOIN RESULT2078 r ON s.RollNo = r.RollNo JOIN
DEPARTMENT2078 d ON s.DeptCode = d.DeptCode;

```
STUDENT_NAME        ROLL_NUMBER DEPARTMENT
------------------- ----------- ------------------------------------------
ANKIT DAS                  1001 Computer Science and Engineering
ANKIT DAS                  1001 Computer Science and Engineering
MOINAK GHOSH               1002 Computer Science and Engineering
MOINAK GHOSH               1002 Computer Science and Engineering
PARIMAL KUMAR              1003 Computer Science and Engineering
PARIMAL KUMAR              1003 Computer Science and Engineering
SAMPRIKTA BISWAS           1023 Computer Science and Engineering
SAMPRIKTA BISWAS           1023 Computer Science and Engineering
NAITIK PRASAD              1029 Computer Science and Engineering
NAITIK PRASAD              1029 Computer Science and Engineering
SUBARNA MITRA              1500 Computer Science and Engineering

STUDENT_NAME        ROLL_NUMBER DEPARTMENT
------------------- ----------- ------------------------------------------
SUBARNA MITRA              1500 Computer Science and Engineering
SANCHITA SINGH             2001 Electronics and Communication Engineering
ANANYA BISWAS              2002 Electronics and Communication Engineering
ASHISH KUMAR               2101 Electronics and Communication Engineering

15 rows selected.
```

5. Create view V_DEPT with dept code, semester, number of student with more than 75 marks in at least one subject.

CREATE VIEW V_DEPT AS
SELECT d.DeptCode, s.Semester, COUNT(DISTINCT r.RollNo) AS Num_Students
FROM DEPARTMENT2078 d
JOIN STUDENT2078 s ON d.DeptCode = s.DeptCode
JOIN RESULT2078 r ON s.RollNo = r.RollNo
WHERE r.Marks > 75
GROUP BY d.DeptCode, s.Semester;

```
SQL> select * from V_DEPT;

DEPT SEME NUM_STUDENTS
---- ---- ------------
CSE  SEM3            2
CSE  SEM5            2
ECE  SEM5            1
```