

```
SQL> SET LINESIZE 200;
SQL> SET PAGESIZE 20;
SQL> conn system/tiger
Connected.
SQL> Grant create view to scott;
```

Grant succeeded.

```
SQL> DROP TABLE Enrolled;
```

Table dropped.

```
SQL> DROP TABLE Course;
```

Table dropped.

```
SQL> DROP TABLE Student;
```

Table dropped.

```
SQL> CREATE TABLE Student(RollNo varchar2(8), SName varchar2(20), Gender varchar2(1), City varchar2(20),
2 CONSTRAINT Student_pk PRIMARY KEY(RollNo));
```

Table created.

```
SQL> CREATE TABLE Course(CCode varchar2(5), CName varchar2(20), Credit number,
2 CONSTRAINT Course_pk PRIMARY KEY(CCode));
```

Table created.

```
SQL> CREATE TABLE Enrolled(RollNo varchar2(8), CCode varchar2(5), YoE number,
2 CONSTRAINT Enrolled_fk_1 FOREIGN KEY(RollNo) REFERENCES Student(RollNo),
3 CONSTRAINT Enrolled_fk_2 FOREIGN KEY(CCode) REFERENCES Course(CCode));
```

Table created.

```
SQL>
```

```
SQL> INSERT ALL
2 INTO Student(RollNo, SName, Gender, City) VALUES ('1901CS99', 'Anand', 'M', 'Hyderabad')
3 INTO Student(RollNo, SName, Gender, City) VALUES ('1901CS98', 'Priya', 'F', 'Delhi')
4 INTO Student(RollNo, SName, Gender, City) VALUES ('1901EC97', 'Shreya', 'F', 'Delhi')
5 INTO Student(RollNo, SName, Gender, City) VALUES ('1901EC96', 'Abhi', 'M', 'Mumbai')
6 INTO Student(RollNo, SName, Gender, City) VALUES ('1901ME95', 'Mrunal', 'F', 'Mumbai')
7 SELECT * FROM dual;
```

5 rows created.

```
SQL>
```

```
SQL> INSERT ALL
```

```
SQL>
SQL> INSERT ALL
2      INTO Course (CCode, CName, Credit) VALUES ('CS500', 'DBMS', 4)
3      INTO Course (CCode, CName, Credit) VALUES ('CS555', 'ML', 3)
4      INTO Course (CCode, CName, Credit) VALUES ('EC300', 'COA', 4)
5      INTO Course (CCode, CName, Credit) VALUES ('EC696', 'DSD', 3)
6      INTO Course (CCode, CName, Credit) VALUES ('ME969', 'MFE', 2)
7      INTO Course (CCode, CName, Credit) VALUES ('ME900', 'MOM', 4)
8  SELECT * FROM dual;
```

6 rows created.

```
SQL>
SQL> INSERT ALL
2      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901CS99', 'CS500', 2020)
3      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901CS99', 'CS555', 2020)
4      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901CS99', 'EC300', 2020)
5      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901CS99', 'EC696', 2020)
6      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901CS99', 'ME969', 2020)
7      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901CS99', 'ME900', 2021)
8      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901EC96', 'CS500', 2021)
9      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901EC96', 'EC300', 2022)
10     INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901EC96', 'EC696', 2021)
11     INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901CS98', 'CS555', 2019)
12     INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901EC97', 'CS555', 2021)
13     INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901ME95', 'ME900', 2021)
14  SELECT * FROM dual;
```

12 rows created.

```
SQL>
SQL> SELECT * FROM Student;
```

ROLLNO	SNAME	G	CITY
1901CS99	Anand	M	Hyderabad
1901CS98	Priya	F	Delhi
1901EC97	Shreya	F	Delhi
1901EC96	Abhi	M	Mumbai
1901ME95	Mrunal	F	Mumbai

```
SQL> SELECT * FROM Course;
```

CCODE	CNAME	CREDIT
CS500	DBMS	4
CS555	ML	3
EC300	COA	4
EC696	DSD	3
ME969	MFE	2


```
12      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901EC97', 'CS555', 2021)
13      INTO Enrolled (RollNo, CCode, YoE) VALUES ('1901ME95', 'ME900', 2021)
14  SELECT * FROM dual;
```

12 rows created.

```
SQL>
SQL> SELECT * FROM Student;
```

ROLLNO	SNAME	G	CITY
1901CS99	Anand	M	Hyderabad
1901CS98	Priya	F	Delhi
1901EC97	Shreya	F	Delhi
1901EC96	Abhi	M	Mumbai
1901ME95	Mrunal	F	Mumbai

```
SQL> SELECT * FROM Course;
```

CCODE	CNAME	CREDIT
CS500	DBMS	4
CS555	ML	3
EC300	COA	4
EC696	DSD	3
ME969	MFE	2
ME900	MOM	4

6 rows selected.

```
SQL> SELECT * FROM Enrolled;
```

ROLLNO	CCODE	YOE
1901CS99	CS500	2020
1901CS99	CS555	2020
1901CS99	EC300	2020
1901CS99	EC696	2020
1901CS99	ME969	2020
1901CS99	ME900	2021
1901EC96	CS500	2021
1901EC96	EC300	2022
1901EC96	EC696	2021
1901CS98	CS555	2019
1901EC97	CS555	2021
1901ME95	ME900	2021

12 rows selected.

```
SQL>
```

```
SQL>
SQL> -- Question A
SQL> ALTER TABLE Course ADD CType varchar(20);

Table altered.

SQL> ALTER TABLE Student ADD Email varchar(30);

Table altered.

SQL> UPDATE Course
 2 SET CType = CASE CCode
 3     WHEN 'CS500' THEN 'Elective'
 4     WHEN 'CS555' THEN 'Core'
 5     WHEN 'EC300' THEN 'Core'
 6     WHEN 'EC696' THEN 'Elective'
 7     WHEN 'ME969' THEN 'Open-Elective'
 8     WHEN 'ME900' THEN 'Core'
 9 END;

6 rows updated.

SQL> UPDATE Student
 2 SET Email = CASE SName
 3     WHEN 'Anand' THEN 'anand@gmail'
 4     WHEN 'Priya' THEN 'priya@yahoo'
 5     WHEN 'Shreya' THEN 'shreya@outlook'
 6     WHEN 'Abhi' THEN 'abhi@gmail'
 7     WHEN 'Mrunal' THEN 'mrunal@yahoo'
 8 END;

5 rows updated.

SQL>
SQL> CREATE OR REPLACE VIEW StudentEmail AS
 2 SELECT RollNo, SName, Email FROM Student;

View created.

SQL> CREATE VIEW CourseType AS
 2 SELECT CCode, CType FROM Course;
CREATE VIEW CourseType AS
  *
ERROR at line 1:
ORA-00955: name is already used by an existing object

SQL>
SQL> SELECT * FROM StudentEmail;
```

```

2 SET Email = CASE SName
3     WHEN 'Anand' THEN 'anand@gmail'
4     WHEN 'Priya' THEN 'priya@yahoo'
5     WHEN 'Shreya' THEN 'shreya@outlook'
6     WHEN 'Abhi' THEN 'abhi@gmail'
7     WHEN 'Mrunal' THEN 'mrunal@yahoo'
8 END;

```

5 rows updated.

```

SQL>
SQL> CREATE OR REPLACE VIEW StudentEmail AS
2 SELECT RollNo, SName, Email FROM Student;

```

View created.

```

SQL> CREATE VIEW CourseType AS
2 SELECT CCode, CType FROM Course;
CREATE VIEW CourseType AS
*
```

ERROR at line 1:
ORA-00955: name is already used by an existing object

```

SQL>
SQL> SELECT * FROM StudentEmail;

```

ROLLNO	SNAME	EMAIL
1901CS99	Anand	anand@gmail
1901CS98	Priya	priya@yahoo
1901EC97	Shreya	shreya@outlook
1901EC96	Abhi	abhi@gmail
1901ME95	Mrunal	mrunal@yahoo

```

SQL> SELECT * FROM CourseType;

```

CCODE	CTYPE
CS500	Elective
CS555	Core
EC300	Core
EC696	Elective
ME969	Open-Elective
ME900	Core

6 rows selected.

```

SQL>
SQL> -- Question B

```


6 rows selected.

```
SQL>
SQL> -- Question B
SQL> CREATE OR REPLACE VIEW CSCourses AS
  2  SELECT CName FROM Course WHERE CCode LIKE 'CS%';
```

View created.

```
SQL> SELECT * FROM CSCourses;
```

CNAME

DBMS

ML

```
SQL>
SQL> -- Question C
SQL> CREATE OR REPLACE VIEW MaleStudentWithTwoAs AS
  2  SELECT SName FROM Student WHERE SName LIKE '%A%a%';
```

View created.

```
SQL> SELECT * FROM MaleStudentWithTwoAs;
```

SNAME

Anand

```
SQL>
SQL> -- Question D
SQL> CREATE OR REPLACE VIEW StudentnotIn_1819 AS
  2  SELECT * FROM Student WHERE RollNo IN
  3  (SELECT RollNo FROM Enrolled WHERE YoE NOT IN (2018, 2019));
```

View created.

```
SQL> SELECT * FROM StudentnotIn_1819;
```

ROLLNO	SNAME	G	CITY	EMAIL
1901CS99	Anand	M	Hyderabad	anand@gmail
1901EC96	Abhi	M	Mumbai	abhi@gmail
1901EC97	Shreya	F	Delhi	shreya@outlook
1901ME95	Mrunal	F	Mumbai	mrunal@yahoo

```
SQL>
SQL> -- Question E
SQL> CREATE OR REPLACE VIEW LeastCreditCourses AS
```



Type here to search



31°C Sunny



ENG

17:08
14-03-2023



16

```
SQL>
SQL> -- Question E
SQL> CREATE OR REPLACE VIEW LeastCreditCourses AS
  2 SELECT * FROM Course WHERE Credit IN (SELECT min(Credit) FROM Course);
```

View created.

```
SQL> SELECT * FROM LeastCreditCourses;
```

CCODE	CNAME	CREDIT	CTYPE
ME969	MFE	2	Open-Elective

```
SQL>
SQL> -- Question F
SQL> CREATE OR REPLACE VIEW NotEnrolledIn2020 AS
  2 SELECT CName FROM Course WHERE CCode IN (SELECT CCode FROM Enrolled WHERE YoE NOT IN (2020));
```

View created.

```
SQL> SELECT * FROM NotEnrolledIn2020;
```

CNAME
MOM
DBMS
COA
DSD
ML

```
SQL>
SQL> -- Question G
SQL> CREATE OR REPLACE VIEW NoOfStudentsFromACity AS
  2 SELECT City, COUNT(RollNo) AS NoOfStudents FROM Student GROUP BY City;
```

View created.

```
SQL> SELECT * FROM NoOfStudentsFromACity;
```

CITY	NOOFSTUDENTS
Delhi	2
Mumbai	2
Hyderabad	1

```
SQL>
SQL> -- Question H
SQL> CREATE OR REPLACE VIEW StudentsEnrolledIn5Courses AS
```

```
SQL>
SQL> -- Question H
SQL> CREATE OR REPLACE VIEW StudentsEnrolledIn5Courses AS
  2  SELECT RollNo FROM Enrolled GROUP BY RollNo HAVING COUNT(CCode) = 5;
```

View created.

```
SQL> SELECT * FROM StudentsEnrolledIn5Courses;
```

no rows selected

```
SQL>
SQL> -- Question I
SQL> CREATE OR REPLACE VIEW NoOfCoursesof1901CS99 AS
  2  SELECT COUNT(RollNo) AS NoOfCourses FROM Enrolled WHERE RollNo = '1901CS99';
```

View created.

```
SQL> SELECT * FROM NoOfCoursesof1901CS99;
```

NOOFCOURSES

```
-----
        6
```

```
SQL>
SQL> -- Question J
SQL> CREATE OR REPLACE VIEW Level5Courses AS
  2  SELECT * FROM Course WHERE CCode LIKE '__5%';
```

View created.

```
SQL> SELECT * FROM Level5Courses;
```

CCODE	CNAME	CREDIT	CTYPE
CS500	DBMS	4	Elective
CS555	ML	3	Core

```
SQL>
SQL> -- Question K
SQL> CREATE OR REPLACE VIEW StudentsFromCS AS
  2  SELECT COUNT(RollNo) AS NoOfStudents FROM Student WHERE RollNo LIKE '%CS%';
```

View created.

```
SQL> SELECT * FROM StudentsFromCS;
```

NOOFSTUDENTS




```
SQL>
SQL> -- Question K
SQL> CREATE OR REPLACE VIEW StudentsFromCS AS
  2 SELECT COUNT(RollNo) AS NoOfStudents FROM Student WHERE RollNo LIKE '%CS%';
```

View created.

```
SQL> SELECT * FROM StudentsFromCS;
```

```
NOOFSTUDENTS
-----
          2
```

```
SQL>
SQL> -- Question L
SQL> CREATE OR REPLACE VIEW MoreThan4Coursesin2020 AS
  2 SELECT RollNo FROM Enrolled WHERE YoE = 2020 GROUP BY RollNo HAVING COUNT(CCode) > 4;
```

View created.

```
SQL> SELECT * FROM MoreThan4Coursesin2020;
```

```
ROLLNO
-----
1901CS99
```

```
SQL>
SQL> -- Question M
SQL> CREATE OR REPLACE VIEW CourseTakenByFemalesFromDelhi AS
  2 SELECT DISTINCT(CCode)
  3 FROM Enrolled INNER JOIN Student
  4 ON Enrolled.RollNo = Student.RollNo AND Student.City = 'Delhi' AND Student.Gender = 'F';
```

View created.

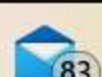
```
SQL> SELECT * FROM CourseTakenByFemalesFromDelhi;
```

```
CCODE
-----
CS555
```

```
SQL>
SQL> -- Question N
SQL> CREATE OR REPLACE VIEW DomainList AS
  2 SELECT SName FROM Student WHERE Email LIKE '%@gmail' OR Email LIKE '%@yahoo';
```

View created.

```
SQL> SELECT * FROM DomainList;
```



View created.

```
SQL> SELECT * FROM CourseTakenByFemalesFromDelhi;
```

CCODE

CS555

```
SQL>
```

```
SQL> -- Question N
```

```
SQL> CREATE OR REPLACE VIEW DomainList AS
```

```
2 SELECT SName FROM Student WHERE Email LIKE '%@gmail' OR Email LIKE '%@yahoo';
```

View created.

```
SQL> SELECT * FROM DomainList;
```

SNAME

Anand

Priya

Abhi

Mrunal

```
SQL>
```

```
SQL> -- Question O
```

```
SQL> CREATE OR REPLACE VIEW StudentInAllCourses AS
```

```
2 SELECT RollNo FROM Enrolled GROUP BY RollNo HAVING COUNT(CCode) = (SELECT COUNT(CCode) FROM Course);
```

View created.

```
SQL> SELECT * FROM StudentInAllCourses;
```

ROLLNO

1901CS99

```
SQL> _
```

