# 5420 Assignment-2-Team-19

SQL Workspace name: tejasviworkspace

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The "CreateTables.sql" and "InsertRecords.sql" scripts have been uploaded and executed successfully in Oracle Apex workspace.

The various SQL code(s) for the respective scenarios in the questions are mentioned below.

# Query 01:

select \* from DEMO\_CLASSROOM;

#### Result:

CRID	DESCR	CAP
BA 116	BA 116	220
BA 250	BA 250	40
BA 356	BA 356	50
BO 115	Biology 115	70
CR 204	Curry 204	110
CR 205	Curry 205	110
CR 121	Computer Science 212	50
LA 200	Language 200	65
MU 245	Music 245	50
PH 110	Physics 110	250

<sup>10</sup> rows returned in 0.04 seconds

Select \* from DEMO\_REGISTRATION;

RID	SID	CID
R01	S01	C03
R02	S02	C03
R03	S02	C06

R05         S03         C06           R06         S03         C07           R07         S04         C01           R08         S04         C03           R09         S04         C07           R10         S05         C06           R11         S05         C07           R12         S06         C02           R13         S06         C06           R14         S07         C06           R15         S07         C07           R16         S08         C03           R17         S08         C05           R18         S09         C02           R19         S09         C05           R20         S09         C07           R21         S01         C08           R22         S02         C09           R23         S05         C08           R24         S06         C09           R25         S01         C09	R04	S03	C01
R07         S04         C01           R08         S04         C03           R09         S04         C07           R10         S05         C06           R11         S05         C07           R12         S06         C02           R13         S06         C06           R14         S07         C06           R15         S07         C07           R16         S08         C03           R17         S08         C05           R18         S09         C02           R19         S09         C05           R20         S09         C07           R21         S01         C08           R22         S02         C09           R23         S05         C08           R24         S06         C09	R05	S03	C06
R08       S04       C03         R09       S04       C07         R10       S05       C06         R11       S05       C07         R12       S06       C02         R13       S06       C06         R14       S07       C06         R15       S07       C07         R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R06	S03	C07
R09       S04       C07         R10       S05       C06         R11       S05       C07         R12       S06       C02         R13       S06       C06         R14       S07       C06         R15       S07       C07         R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R07	S04	C01
R10       S05       C06         R11       S05       C07         R12       S06       C02         R13       S06       C06         R14       S07       C06         R15       S07       C07         R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R08	S04	C03
R11       S05       C07         R12       S06       C02         R13       S06       C06         R14       S07       C06         R15       S07       C07         R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R09	S04	C07
R12       S06       C02         R13       S06       C06         R14       S07       C06         R15       S07       C07         R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R10	S05	C06
R13       S06       C06         R14       S07       C06         R15       S07       C07         R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R11	S05	C07
R14       S07       C06         R15       S07       C07         R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R12	S06	C02
R15       S07       C07         R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R13	S06	C06
R16       S08       C03         R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R14	S07	C06
R17       S08       C05         R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R15	S07	C07
R18       S09       C02         R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R16	S08	C03
R19       S09       C05         R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R17	S08	C05
R20       S09       C07         R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R18	S09	C02
R21       S01       C08         R22       S02       C09         R23       S05       C08         R24       S06       C09	R19	S09	C05
R22       S02       C09         R23       S05       C08         R24       S06       C09	R20	S09	C07
R23 S05 C08 R24 S06 C09	R21	S01	C08
R24 S06 C09	R22	S02	C09
	R23	S05	C08
R25 S01 C09	R24	S06	C09
	R25	S01	C09

25 rows returned in 0.00 seconds

# Select \* from DEMO\_COURSE;

CID	TITLE	IID	HOUR	CRID
C01	Introduction to Business	101	3	BA 116

C02	Introduction to Business	106	3	CR 204
C03	Business Communications	103	3	CR 205
C04	Business Ethics	101	2	BA 356
C05	Economic Policies	106	2	BO 115
C06	Computer Programming	102	3	CR 121
C07	Statistics	104	3	PH 110
C08	Database	105	3	BA 356
C09	Java	102	3	BA 250

9 rows returned in 0.03 seconds

Select \* from DEMO\_INSTRUCTOR;

### Result:

IID	NAME	DEPT
101	Becker	BCIS
102	Lee	Computer
103	Ferguson	English
104	Harvey	Statisitics
105	Koh	BCIS
106	Kent	Economics

6 rows returned in 0.03 seconds

Select \* from DEMO\_STUDENT;

SID	NAME	MAJOR	YEAR	GPA
S01	Bird	Philosophy	2	3.5

S02	Austin	English	2	3.7
S03	Scott	Statistics	3	2.5
S04	Coleman	Business	1	1.4
S05	Jefferson		2	1.8
S06	Newsome	Business	1	2.9
S07	Hampton	Computer	2	2.4
S08	Hartman	Business	1	3.2
S09	Jones	Computer	4	3.9
S10	Oldham	Business	1	3

10 rows returned in 0.03 seconds

# Query 02:

select NAME, YEAR, GPA from DEMO\_STUDENT where MAJOR = 'Business' order by YEAR desc;

#### Result:

NAME	YEAR	GPA
Coleman	1	1.4
Oldham	1	3
Hartman	1	3.2
Newsome	1	2.9

# Query 03:

select CID, TITLE, CRID from DEMO\_COURSE WHERE IID='I06';

#### **Result:**

CID	TITLE	CRID
	Introduction to	
C02	Business	CR 204
C05	Economic Policies	BO 115

2 rows returned in 0.01 seconds

# Query 04:

select DEMO\_COURSE.CID, DEMO\_COURSE.TITLE, DEMO\_CLASSROOM.CAP, DEMO\_CLASSROOM.DESCR from DEMO\_COURSE

INNER JOIN DEMO\_CLASSROOM ON DEMO\_CLASSROOM.CRID = DEMO\_COURSE.CRID

Where DEMO\_CLASSROOM.DESCR = 'Curry 205';

### Result:

CID	TITLE	CAP	DESCR
	Business		Curry
C03	Communications	110	205

<sup>1</sup> rows returned in 0.04 seconds

### Query 05:

Select IID, COUNT IID from DEMO\_COURSE GROUP BY IID having COUNT (IID)>1;

IID	COUNT(IID)
106	2
102	2
101	2

3 rows returned in 0.00 seconds

# Query 06:

Select \* from DEMO\_COURSE where IID In

(select IID from DEMO\_COURSE

group by IID

having Count (IID) >1) and (TITLE like '%Business%') or (HOUR <= 2);

### Result:

CID	TITLE	IID	HOUR	CRID
C01	Introduction to Business	101	3	BA 116
C02	Introduction to Business	106	3	CR 204
C04	Business Ethics	101	2	BA 356
C05	Economic Policies	106	2	BO 115

<sup>4</sup> rows returned in 0.03 seconds

# Query 07:

SELECT DEMO\_INSTRUCTOR.NAME, DEMO\_INSTRUCTOR.DEPT FROM DEMO\_COURSE

INNER JOIN DEMO\_INSTRUCTOR ON DEMO\_COURSE.IID = DEMO\_INSTRUCTOR.IID

GROUP BY DEMO\_COURSE.IID, DEMO\_INSTRUCTOR.IID, DEMO\_INSTRUCTOR.NAME, DEMO\_INSTRUCTOR.DEPT

HAVING COUNT (DEMO\_COURSE.IID) = 1;

### **Result:**

NAME	DEPT	
Ferguson	English	
Koh	BCIS	
Harvey	Statisitics	

3 rows returned in 0.05 seconds

### Query 08:

SELECT CID, COUNT(SID) AS STUDENTCOUNT FROM DEMO\_REGISTRATION GROUP BY CID;

### Result:

CID	STUDENTCOUNT
C05	2
C08	2
C06	5
C01	2
C03	4
C02	2
C07	5
C09	3

8 rows returned in 0.04 seconds

### Query 09:

Select \* from demo\_course where CID in

(Select CID from demo\_registration group by CID having count (CID) > 4);

### Result:

CID	TITLE	IID	HOUR	CRID
	Computer			
C06	Programming	102	3	CR 121
C07	Statistics	104	3	PH 110

<sup>2</sup> rows returned in 0.03 seconds

# **Query 10:**

Select \* from DEMO\_CLASSROOM where CAP IN

(select CAP from DEMO\_CLASSROOM group by CAP having count(CAP)>1)

AND CRID != DESCR;

CRID	DESCR	CAP
CR 121	Computer Science 212	50
CR 205	Curry 205	110
CR 204	Curry 204	110
MU 245	Music 245	50

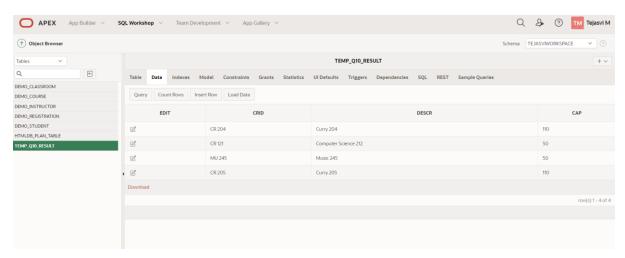
<sup>4</sup> rows returned in 0.02 seconds

# Query 11:

CREATE TABLE Temp\_Q10\_Result AS (Select \* from DEMO\_CLASSROOM where CAP IN

(select CAP from DEMO\_CLASSROOM group by CAP having count(CAP)>1)
AND CRID != DESCR);

### **Result:**



### Query 12:

SELECT DISTINCT YEAR, AVG(GPA) FROM DEMO\_STUDENT GROUP BY YEAR ORDER BY YEAR ASC;

#### **Result:**

YEAR	AVG(GPA)
1	2.625
2	2.85
3	2.5
4	3.9

4 rows returned in 0.01 seconds

### Query 13:

SELECT DISTINCT YEAR, AVG (GPA), ROW\_NUMBER() OVER (ORDER BY AVG (GPA) ASC) ROWNUMBER FROM DEMO\_STUDENT GROUP BY AVG(GPA) ASC;

### Result:

YEAR	AVG(GPA)	ROWNUMBER
3	2.5	1
1	2.625	2
2	2.85	3
4	3.9	4

4 rows returned in 0.01 seconds

### Query 14:

Select YEAR, AvgGPA from(

select YEAR, AVG(GPA) as AvgGPA, Row\_number() over (order by AVG(GPA)) as rownumber from DEMO\_STUDENT

group by YEAR

order by rownumber) X where rownumber =1;

#### Result:

YEAR	AVGGPA	
3	2.5	

1 rows returned in 0.01 seconds

### Query 15:

SELECT \* FROM DEMO\_STUDENT WHERE YEAR = '1' AND GPA < 2;

#### **Result:**

SID	NAME	MAJOR	YEAR	GPA
S04	Coleman	Business	1	1.4

<sup>1</sup> rows returned in 0.00 seconds

### Query 16:

SELECT DEMO\_REGISTRATION.SID, DEMO\_REGISTRATION.CID FROM DEMO\_REGISTRATION

INNER JOIN DEMO\_STUDENT ON DEMO\_REGISTRATION.SID = DEMO\_STUDENT.SID WHERE DEMO\_STUDENT.MAJOR = 'COMPUTER';

### **Result:**

SID	CID
S07	C06
S07	C07
S09	C02
S09	C05
S09	C07

5 rows returned in 0.01 seconds

### **Query 17:**

SELECT DEMO\_COURSE.CID, DEMO\_COURSE.TITLE, DEMO\_COURSE.IID,

DEMO\_COURSE.HOUR, DEMO\_COURSE.CRID FROM DEMO\_COURSE
INNER JOIN DEMO\_REGISTRATION ON DEMO\_REGISTRATION.CID = DEMO\_COURSE.CID
INNER JOIN DEMO\_STUDENT ON DEMO\_STUDENT.SID = DEMO\_REGISTRATION.SID
WHERE DEMO\_STUDENT.MAJOR = 'COMPUTER';

#### **Result:**

CID	TITLE	IID	HOUR	CRID
	Introduction to			
C02	Business	106	3	CR 204
C05	Economic Policies	106	2	BO 115
	Computer			
C06	Programming	102	3	CR 121
C07	Statistics	104	3	PH 110
C07	Statistics	104	3	PH 110

5 rows returned in 0.02 seconds

