

Assignment -3

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STUDENT TABLE

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the query: `select * from student;`. The result is a table with 12 rows and 4 columns: S_ID, S_NAME, GPA, and SIZES.

S_ID	S_NAME	GPA	SIZES
123	Amy	3.9	1000
234	Bob	3.6	1500
345	Craig	3.5	500
456	Doris	3.9	1000
567	Edward	2.9	2000
678	Fay	3.8	200
789	Gary	3.4	800
987	Helen	3.7	800
876	Irene	3.9	400
765	Jay	2.9	1500
654	Amy	3.9	1000
543	Craig	3.4	2000

Download CSV
12 rows selected.

APPLY TABLE

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the query: `select * from Apply;`. The result is a table with 16 rows and 4 columns: S_ID, CNAME, MAJOR, and DECISION.

S_ID	CNAME	MAJOR	DECISION
123	Stanford	CS	Y
123	Stanford	EE	N
123	Berkeley	CS	Y
123	Cornell	EE	Y
234	Berkeley	biology	N
345	HIT	bioengineering	Y
345	Cornell	bioengineering	N
345	Cornell	CS	Y
345	Cornell	EE	N
678	Stanford	history	Y
987	Stanford	CS	Y
987	Berkeley	CS	Y
876	Stanford	CS	N
876	HIT	biology	Y
876	HIT	marine biology	N
765	Stanford	history	Y
765	Cornell	history	N

COLLEGE TABLE

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the query: `select * from college;`. The results are displayed in a table with columns COLLEGE NAME, STATE, and ENROLLMENT.

COLLEGE NAME	STATE	ENROLLMENT
Stanford	CA	15000
Berkeley	CA	36000
MIT	MA	10000
Cornell	NY	21000
Harvard	MA	50040

Download CSV
5 rows selected.

Q1. Produce a combine table in which each student is combine with every other application.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the query: `select * from student, apply where student.sid=Apply.sid;`. The results are displayed in a table with columns SID, SNAME, GPA, SIZES, SID, CNAME, MAJOR, and DECISION.

SID	SNAME	GPA	SIZES	SID	CNAME	MAJOR	DECISION
123	Amy	3.9	1000	123	Stanford	CS	Y
123	Amy	3.9	1000	123	Stanford	EE	N
123	Amy	3.9	1000	123	Berkeley	CS	Y
123	Amy	3.9	1000	123	Cornell	EE	Y
244	Bob	4.0	1500	244	Berkeley	biology	N
345	Craig	3.5	500	345	MIT	bioengineering	Y
345	Craig	3.5	500	345	Cornell	bioengineering	N
345	Craig	3.5	500	345	Cornell	CS	Y
345	Craig	3.5	500	345	Cornell	EE	N
678	Fay	3.8	200	678	Stanford	history	Y
987	Helen	3.7	800	987	Stanford	CS	Y
987	Helen	3.7	800	987	Berkeley	CS	Y
876	Irene	3.9	400	876	Stanford	CS	N
876	Irene	3.9	400	876	MIT	biology	Y
876	Irene	3.9	400	876	MIT	marine biology	N
765	Jay	2.9	1500	765	Stanford	history	Y
765	Jay	2.9	1500	765	Cornell	history	N

Q2. Give Student ID, name, GPA and name of college and major each student applied to.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select student.sID,sName,GPA,colname,MAJOR from student,Apply where student.sID=Apply.sID;
```

The results are displayed in a table with the following data:

SID	SNAME	GPA	CNAME	MAJOR
123	Amy	3.9	Berkeley	CS
123	Amy	3.9	Stanford	CS
123	Amy	3.9	Cornell	EE
123	Amy	3.9	Stanford	EE
234	Bob	3.6	Berkeley	biology
345	Craig	3.5	Cornell	CS
345	Craig	3.5	Cornell	EE
345	Craig	3.5	Cornell	bioengineering
345	Craig	3.5	MIT	bioengineering
543	Craig	3.4	MIT	CS
678	Fay	3.8	Stanford	history
765	Jay	2.9	Cornell	history
765	Jay	2.9	Stanford	history
765	Jay	2.9	Cornell	psychology
876	Irene	3.9	Stanford	CS
876	Irene	3.9	MIT	biology

Q3. Find detail of applications who applied to California State.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select * from Apply,college where Apply.cName=college.collegename and state='CA';
```

The results are displayed in a table with the following data:

SID	CNAME	MAJOR	DECISION	COLLEGENAME	STATE	ENROLLMENT
123	Stanford	CS	Y	Stanford	CA	15000
123	Stanford	EE	N	Stanford	CA	15000
123	Berkeley	CS	Y	Berkeley	CA	36000
234	Berkeley	biology	N	Berkeley	CA	36000
678	Stanford	history	Y	Stanford	CA	15000
987	Stanford	CS	Y	Stanford	CA	15000
987	Berkeley	CS	Y	Berkeley	CA	36000
876	Stanford	CS	N	Stanford	CA	15000
765	Stanford	history	Y	Stanford	CA	15000

Download CSV
9 rows selected.

Q4. IDs, name, GPA of students and name of college with GPA > 3.7 applying to Stanford .

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select student.sID,sName,GPA,cName from student,Apply where student.sID=Apply.sID and GPA>'3.7' and cName='stanford';
```

The result area displays "no data found".

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Q5. Find detail of Student who apply to CS major and their application are rejected.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select * from student,Apply where student.sID=Apply.sID and Major='CS' and decision='N';
```

The result area displays a table with 2 rows selected:

SID	SNAME	GPA	SIZES	SID	CNAME	MAJOR	DECISION
876	Irene	3.9	400	876	Stanford	CS	N
543	Craig	3.4	2000	543	HIT	CS	N

Download CSV
2 rows selected.

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Q6. Find detail of student and application who applied to colleges at New York.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select student.sID,sName,GPA,sizeHS,cName,MAJOR,Decision from student,Apply,college where student.sID=Apply.sID and Apply.cName=college.collegeName and state='NY';
```

The query results are displayed in a table with 7 columns: SID, SNAME, GPA, SIZEHS, CNAME, MAJOR, and DECISION. There are 6 rows selected.

SID	SNAME	GPA	SIZEHS	CNAME	MAJOR	DECISION
123	Amy	3.9	1000	Cornell	EE	Y
345	Craig	3.5	500	Cornell	bioengineering	N
345	Craig	3.5	500	Cornell	CS	Y
345	Craig	3.5	500	Cornell	EE	N
765	Jay	2.9	1500	Cornell	history	N
765	Jay	2.9	1500	Cornell	psychology	Y

Download CSV
6 rows selected.

Q7. Find detail of student who have not applied to any of college.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select student.sID,sName,GPA,sizeHS from student left join Apply on student.sID=Apply.sID where cName is null;
```

The query results are displayed in a table with 4 columns: SID, SNAME, GPA, and SIZEHS. There are 4 rows selected.

SID	SNAME	GPA	SIZEHS
507	Edward	2.9	2000
654	Amy	3.9	1000
456	Doris	3.9	1000
789	Gary	3.4	800

Download CSV
4 rows selected.

Q8. Find college where no student have applied.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select * from Apply left join college on Apply.colname=college.collegeName where cname is null;
```

The result area displays "no data found". The interface includes a sidebar with navigation options like Home, SQL Worksheet, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The bottom status bar indicates the user is logged in as raj.kumar_cs19@glia.ac.in.

Q9. Find SID who have only one application.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select Apply.sid from student,Apply where student.sid=Apply.sid and Apply.sid='234';
```

The result area displays a table with one row:

SID
234

Below the table is a "Download CSV" link. The interface includes a sidebar with navigation options like Home, SQL Worksheet, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The bottom status bar indicates the user is logged in as raj.kumar_cs19@glia.ac.in.

Q10. Find name and GPA of applicants who apply to any college whose enrollment is not more than 25000.

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select sname,gpa from student,Apply,college where student.sID=Apply.sID and Apply.cName=college.collegename and enrollment<=25000;
```

The results are displayed in a table with two columns: SNAME and GPA.

SNAME	GPA
Amy	3.9
Amy	3.9
Amy	3.9
Craig	3.5
Craig	3.5
Craig	3.5
Craig	3.5
Fay	3.8
Helen	3.7
Irene	3.9
Irene	3.9
Irene	3.9
Jay	2.9
Jay	2.9
Jay	2.9
Craig	3.4

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Q11. Find pair of students (sID) having same GPA. (each pair should occur just once in result).

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following query:

```
1 select student.sID,GPA from student,Apply where student.sID=Apply.sID and Apply.sID is null;
```

The results area displays "no data found".

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