

DBMS LAB

EXPERIMENT :3

NAME : Krishnaveer Chahar

SECTION : B

ROLL NO : 45(191500410)

SUBMITTED TO : Rishi Sir

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

The screenshot shows the Oracle Live SQL interface. The query entered is:

```
select student_id, name, gpa, college, major from student;
```

The results are displayed in a table with the following columns: **STID**, **SNARE**, **GPA**, **CNAME**, and **MAJOR**. The data is as follows:

STID	SNARE	GPA	CNAME	MAJOR
123	Any	3.9	Berkeley	CS
123	Any	3.9	Stanford	CS
123	Any	3.9	Cornell	EE
123	Any	3.9	Stanford	EE
123	Any	3.9	Berkeley	biology
123	Any	3.9	Cornell	CS
123	Any	3.9	Cornell	EE
123	Any	3.9	Cornell	bioengineering
123	Any	3.9	HIT	bioengineering
123	Any	3.9	HIT	CS
123	Any	3.9	Stanford	history
123	Any	3.9	Cornell	history
123	Any	3.9	Stanford	history
123	Any	3.9	Cornell	psychology
123	Any	3.9	Stanford	CS
123	Any	3.9	HIT	biology
123	Any	3.9	HIT	marine biology
123	Any	3.9	Berkeley	CS
234	Bob	3.6	Berkeley	CS
234	Bob	3.6	Cornell	EE
234	Bob	3.6	Stanford	EE

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 query entered is:

```
select student_id, name, gpa, college, major from student, apply where student_id=apply_id;
```

The results are displayed in a table with the following columns: **STID**, **SNARE**, **GPA**, **CNAME**, and **MAJOR**. The data is as follows:

STID	SNARE	GPA	CNAME	MAJOR
123	Any	3.9	Berkeley	CS
123	Any	3.9	Stanford	CS
123	Any	3.9	Cornell	EE
123	Any	3.9	Stanford	EE
123	Any	3.9	Berkeley	biology
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	HIT	bioengineering
345	Craig	3.4	HIT	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	HIT	biology
876	Irene	3.9	HIT	marine biology
987	Helen	3.7	Berkeley	CS
987	Helen	3.7	Stanford	CS

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

Oracle Live SQL - SQL Worksheet

SQL Worksheet

```
1 select sid,cname,major,decision from apply,college where apply.cname=college.collegename and state='CA';
```

SID	CNAME	MAJOR	DECISION
123	Stanford	CS	Y
123	Stanford	EE	N
123	Berkeley	CS	Y
234	Berkeley	biology	N
678	Stanford	history	Y
987	Stanford	CS	Y
987	Berkeley	CS	Y
876	Stanford	CS	N
765	Stanford	history	Y

Download CSV
9 rows selected.

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

Oracle Live SQL - SQL Worksheet

SQL Worksheet

```
1 select student.sid,sname,gpa,sizes,cname from student,apply where student.sid=apply.sid and GPA>3.7 and cname='Stanford';
```

SID	SNAME	GPA	SIZES	CNAME
123	Any	3.9	1000	Stanford
123	Any	3.9	1000	Stanford
678	Fay	3.8	200	Stanford
876	Irene	3.9	400	Stanford

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4 rows selected.

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

Oracle Live SQL - SQL Worksheet

livesql.oracle.com/apex/f?p=590:115849645376565::LEVEL1::

Live SQL

SQL Worksheet

```
1 select student.sID,sName,GPA,sizesHS from student,apply where student.sID=apply.sID and major='CS' and decision='N'
```

SID	SNAME	GPA	SIZESHS
876	Irene	3.9	400
543	Craig	3.4	2000

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2 rows selected.

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

Oracle Live SQL - SQL Worksheet

livesql.oracle.com/apex/f?p=590:115849645376565::LEVEL1::

Live SQL

SQL Worksheet

```
1 select student.sID,sName,GPA,sizesHS,apply.sID,cName,major,decision from student,apply,college
2 where student.sID=apply.sID and apply.cName=college.collegeName and state = 'NY'
```

SID	SNAME	GPA	SIZESHS	SID	CNAME	MAJOR	DECISION
123	Any	3.9	1000	123	Cornell	EE	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
765	Jay	2.9	1500	765	Cornell	history	N
765	Jay	2.9	1500	765	Cornell	psychology	Y

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

Oracle Live SQL - SQL Worksheet

livesql.oracle.com/apex/f?p=590:115849645376565::LEVEL1::

Live SQL

SQL Worksheet

```
1 select student.sid,aname,gpa,sizeHS from student left join apply on student.sid = apply.sid where clame is null;
```

SID	NAME	GPA	SIZEHS
567	Eduard	2.9	2000
654	Any	3.9	1800
456	Doris	3.9	1800
789	Gary	3.4	800

Download CSV
4 rows selected.

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Q8. Find college where no student have applied

Oracle Live SQL - SQL Worksheet

livesql.oracle.com/apex/f?p=590:115849645376565::LEVEL1::

Live SQL

SQL Worksheet

```
1 select collegename,state,enrollment from college left join apply on college.collegename=apply.clame where clame  
2 is null;
```

COLLEGENAME	STATE	ENROLLMENT
Harvard	MA	50848

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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 query entered is: `select shane,gpa from student,apply,college where student.sid=apply.sid and apply.college.collegename and enrollment<25000`. The result table shows the following data:

NAME	GPA
Any	3.9
Any	3.9
Any	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

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 query entered is: `select S1.sid,S2.sid from Student S1, Student S2 where S1.GPA=S2.GPA and S1.sid<S2.sid`. The result table shows the following data:

SID	SID
123	456
543	789
123	876
456	876
654	876
987	165
123	654
456	654

