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Sub: DBMS Lab
Code: BCSC 0802

Assignment No. 3

Submitted to:

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Exercise 1

1. select * from student, apply;

SID	SNAME	GPA	SIZEHS	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
123	Amy	3.9	1000	234	Berkeley	biology	N
123	Amy	3.9	1000	345	MIT	bioengineering	Y
123	Amy	3.9	1000	345	Cornell	bioengineering	N
123	Amy	3.9	1000	345	Cornell	CS	Y
123	Amy	3.9	1000	345	Cornell	EE	N
123	Amy	3.9	1000	678	Stanford	history	Y
123	Amy	3.9	1000	987	Stanford	CS	Y
123	Amy	3.9	1000	987	Berkeley	CS	Y
123	Amy	3.9	1000	876	Stanford	CS	N
123	Amy	3.9	1000	876	MIT	biology	Y
123	Amy	3.9	1000	876	MIT	marine biology	N
123	Amy	3.9	1000	765	Stanford	history	Y
123	Amy	3.9	1000	765	Cornell	history	N
123	Amy	3.9	1000	765	Cornell	psychology	Y
123	Amy	3.9	1000	543	MIT	CS	N
234	Bob	3.6	1500	123	Stanford	CS	Y
						More Rows are not added	

2. select sID, sName, GPA, cName, major from student natural join apply;

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
876	Irene	3.9	MIT	marine biology
987	Helen	3.7	Berkeley	CS
987	Helen	3.7	Stanford	CS

3. select apply.* from apply inner join college on apply.cName = College.collegeName and College.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

4. select sID, sName, GPA, cName from student natural join Apply where GPA > 3.7 and cName = 'Stanford';

SID	SNAME	GPA	CNAME
123	Amy	3.9	Stanford
123	Amy	3.9	Stanford
678	Fay	3.8	Stanford
876	Irene	3.9	Stanford

5. select sID, sName, GPA, sizeHS from Student natural join Apply where major = 'CS' and decision = 'N';

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

6. select Student.*, Apply.cName, Apply.major, Apply.Decision from Student, apply, college where Student.sID = Apply.sID and apply.cName = college.collegeName and college.state = 'NY';

SID	SNAME	GPA	SIZEHS	SID	CNAME	MAJOR	DECISION
123	Amy	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

7. select * from Student where sID not in (select distinct sID from apply);

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

8. select collegeName from college where collegeName not in (select distinct cname from apply);

COLLEGENAME
Harvard

9. select sID from apply group by sID having count(sID) = 1;

SID
234
543
678

10. select student.sName, student.GPA from student, college, apply where student.sID = apply.sID and apply.cname = college.collegeName and College.enrollment <= 25000;

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

11. select s1.sID, s1.sName, s1.GPA, s2.sID, s2.sName, s2.GPA from student s1, student s2
      where s1.gPA = s2.GPA and s1.sID <> s2.sID;

SID	SNAME	GPA	SID	SNAME	GPA
456	Doris	3.9	123	Amy	3.9
876	Irene	3.9	123	Amy	3.9
654	Amy	3.9	123	Amy	3.9
123	Amy	3.9	456	Doris	3.9
876	Irene	3.9	456	Doris	3.9
654	Amy	3.9	456	Doris	3.9
765	Jay	2.9	567	Edward	2.9
543	Craig	3.4	789	Gary	3.4
123	Amy	3.9	876	Irene	3.9
456	Doris	3.9	876	Irene	3.9
654	Amy	3.9	876	Irene	3.9
567	Edward	2.9	765	Jay	2.9
123	Amy	3.9	654	Amy	3.9
456	Doris	3.9	654	Amy	3.9
876	Irene	3.9	654	Amy	3.9
789	Gary	3.4	543	Craig	3.4