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Sub: DBMS Lab

Code: BCSC 0802

Assignment No. 5

Submitted to:

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Exercise 1

1. select sID, sName from student where sID in (select sld from apply where major = 'CS');

SID	SNAME
123	Amy
345	Craig
543	Craig
876	Irene
987	Helen

2. select sID, sName from student where sizeHS in (select sizeHS from student where sName = 'Jay');

SID	SNAME
234	Bob
765	Jay

3. select sID, sName from student where sizeHS in (select sizeHS from student where sName = 'Jay')
and sName <> 'Jay';

SID	SNAME
234	Bob

4. select sID, sName, GPA from student where GPA not in (select GPA from student where sName =
'Irene');

SID	SNAME	GPA
987	Helen	3.7
567	Edward	2.9
765	Jay	2.9
234	Bob	3.6
678	Fay	3.8
345	Craig	3.5
789	Gary	3.4
543	Craig	3.4

5. select distinct cName from Apply where sID in (select sID from student where sName like 'J%');

CNAME
Cornell
Stanford

6. select distinct major from apply where sID in (select sID from student where sName = 'Irene');

MAJOR
marine
biology
biology
CS

7. select sID, major from apply where major in (select major from apply where sID in (select sID from student where sName = 'Irene'));

SID	MAJOR
123	CS
123	CS
234	biology
345	CS
543	CS
876	CS
876	biology
876	marine
	biology
987	CS
987	CS

8. select sID, major from apply where major in (select major from apply where sID in (select sID from student where sName = 'Irene')) and sID not in (select sID from student where sname = 'Irene');

SID	MAJOR
543	CS
987	CS
987	CS
345	CS
234	biology
123	CS
123	CS

9. select count(cname) from apply where sld in (select sld from student where sName = 'Jay');

COUNT (CNAM E)
3

10. select sID from apply group by sID having count(sID)>=(select count(sID) from apply where sID in (select sID from student where sName = 'Jay'));

SID
123
345
765
876

11. select * from student where sID in (select sID from apply where major = 'CS' minus select sID from apply where major = 'EE');

SID	SNAME	GPA	SIZEHS
987	Helen	3.7	800
876	Irene	3.9	400
543	Craig	3.4	2000

12. select cname from college C1 where exists (select cname from college C2 where C1.state = C2.state and C1.cname <> C2.cname);

CNAME
Berkeley
Stanford
Harvard
MIT

13. select cname from college where enrollment = (select max(enrollment) from college);

CNAME
Harvard

14. select sname from student where GPA = (select min(GPA) from student);

SNAME
Edward
Jay

15. select major from apply group by major having count(major) in (select max(count(major)) from apply group by major);

MAJOR
CS

16. select sID, sName, sizeHS from student where sizeHS not in (select min(sizeHS) from student);

SID	SNAME	SIZEHS
123	Amy	1000
234	Bob	1500
345	Craig	500
456	Doris	1000
567	Edward	2000
789	Gary	800
987	Helen	800
876	Irene	400
765	Jay	1500
654	Amy	1000
543	Craig	2000

17. select sname from student where sID in (select sID from Apply where cname in (select cName from apply where sID = 987));

SNAME
Amy
Bob
Fay
Helen
Irene
Jay

18. select distinct A.cname from apply A where not exists ((select sID from student) minus (select sID from apply B where B.cName = A.cName));

CNAME
Berkeley

19. select sID from student where sID not in (select distinct sID from apply where cName = 'Stanford');

SID
543
567
345
654
456
789
234

20. select sID from student where sID in (select sID from apply where cName = 'Stanford' intersect select sID from apply where cName = 'Berkeley');

SID
123
987

21. select sName as List from student union select cName from college;

LIST
Amy
Berkeley
Bob
Cornell
Craig
Doris
Edward
Fay
Gary
Harvard
Helen
Irene
Jay
MIT
Stanford

22. create table ApplicationInfo as (select sID, sName, count(cName) as number_of_Application from student natural join Apply group by sID, sName);

SID	SNAME	NUMBER_OF_APPLICATION
543	Craig	1
876	Irene	3
345	Craig	4
987	Helen	2
678	Fay	1
234	Bob	1
765	Jay	3
123	Amy	4

23. create table ApplicationData as (select S.sID, S.sname, A.cname, A.state from student S left join (select * from college natural join apply) A on S.sID = A.sID);

SID	SNAME	CNAME	STATE
123	Amy	Berkeley	CA
123	Amy	Stanford	CA
123	Amy	Cornell	NY
123	Amy	Stanford	CA
234	Bob	Berkeley	CA
345	Craig	Cornell	NY
345	Craig	Cornell	NY
345	Craig	Cornell	NY
345	Craig	MIT	MA
543	Craig	MIT	MA
678	Fay	Stanford	CA
765	Jay	Cornell	NY
765	Jay	Stanford	CA
765	Jay	Cornell	NY
876	Irene	Stanford	CA
876	Irene	MIT	MA
876	Irene	MIT	MA
987	Helen	Berkeley	CA
987	Helen	Stanford	CA
567	Edward	-	-
654	Amy	-	-
456	Doris	-	-
789	Gary	-	-

24. update apply set decision = 'N' where sID in (select sID from apply where cname = 'Berkeley') and cname = 'Stanford';

3 row(s) updated.

25. delete from apply where sID in (select sID from apply where cName in (select cName from college where state = 'NY'));

11 row(s) deleted.