GLA UNIVERSITY, MATHURA

DATABASE MANAGEMENT SYSTEM

ASSIGNMENT – 1

Submitted to -

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SC

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QUERY -1

List the student's name, dob from student table

ASSIGNMENT 1_2415000893.sql*

```
insert into Student (sID , sName ,GPA , sizeHS , DoB )values (543 ,'C



SELECT sName , Dob from Student ;

SELECT sName from Student where GPA > 3.7;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download Execution time: 0.004 seconds

	SNAME	DOB
5	Amy	6/26/1996, 12:00:0
6	Bob	4/7/1995, 12:00:00
7	Craig	2/4/1995, 12:00:00
8	Doris	7/24/1997, 12:00:0
9	Edward	12/21/1996, 12:00:
10	Fay	8/27/1996, 12:00:0
11	Gary	10/8/1996, 12:00:0
12	Helen	3/27/1997, 12:00:0
13	Irene	3/7/1996, 12:00:00
14	Jay	8/8/1998, 12:00:00

Craig

QUERY-2

List the name of student scoring more than 3.7 in GPA.

ASSIGNMENT 1_2415000893.sql*

```sql
SELECT sName , Dob from Student ;

SELECT sName from Student where GPA > 3.7;

SELECT sName from Student where sizeHS >=1000 AND Dob > '31-DEC-1996';

SELECT sName from Student where GPA BETWEEN 2.9 AND 3.9;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download Execution time: 0.002 seconds

	SNAME
1	Amy
2	Amy
3	Amy
4	Doris
5	Fay
6	Irene
7	Amy

QUERY –3

List the name of student whose High School size is at least 1000 and born after 1996

ASSIGNMENT 1_2415000893.sql*

```
SELECT sName from Student where GPA > 3.7;

SELECT sName from Student where sizeHS >=1000 AND Dob > '31-DEC-1996';

SELECT sName from Student where GPA BETWEEN 2.9 AND 3.9;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download | Execution time: 0.001 seconds

	SNAME
1	Doris
2	Jay
3	Craig

QUERY –4

List the name of student who are scoring GPA in between 2.9 and 3.9

ASSIGNMENT 1_2415000893.sql*

```
SELECT sName from Student where sizeHS >=1000 AND Dob > '31-DEC-1996

SELECT sName from Student where GPA BETWEEN 2.9 AND 3.9;

SELECT * FROM College where State = 'MA'
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download Execution time: 0.003 seconds

	SNAME
5	Amy
6	Bob
7	Craig
8	Doris
9	Edward
10	Fay
11	Gary
12	Helen
13	Irene
14	Jay

QUERY-5

List all the details of colleges situated in MA.

ASSIGNMENT 1_2415000893.sql*

```sql
SELECT sName from Student where GPA BETWEEN 2.9 AND 3.9;

SELECT * FROM College where State = 'MA'

SELECT * from Student where GPA >2.0 AND GPA <3.5;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download Execution time: 0.002 seconds

	CNAME	STATE	ENROLLMENT
1	MIT	MA	10000
2	Harvard	MA	50040
3	MIT	MA	10000
4	Harvard	MA	50040
5	MIT	MA	10000
6	Harvard	MA	50040
7	MIT	MA	10000
8	Harvard	MA	50040

QUERY-6

List the students who are scored more than 2.0 but less than 3.5.

ASSIGNMENT 1_2415000893.sql*

```
SELECT * FROM College where State = 'MA'

SELECT * from Student where GPA >2.0 AND GPA <3.5;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download | Execution time: 0.001 seconds

	SID	SNAME	GPA	SIZEHS	DOB
1	567	Edward	2.9	2000	12/21/1996, 12:00:0
2	789	Gary	3.4	800	10/8/1996, 12:00:0
3	765	Jay	2.9	1500	8/8/1998, 12:00:00
4	543	Craig	3.4	2000	8/27/1998, 12:00:0

QUERY-7

List the students who have born after 1st Jul 96 in the order of the Date of Birth.

ASSIGNMENT 1_2415000893.sql*

```
SELECT * FROM College where State = 'MA'

SELECT * from Student where GPA >2.0 AND GPA <3.5;

SELECT *from Student where Dob >'01-JUL-1996' order by Dob;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download Execution time: 0.005 seconds

	SID	SNAME	GPA	SIZEHS	DOB
1	678	Fay	3.8	200	8/27/1996, 12:00:0
2	789	Gary	3.4	800	10/8/1996, 12:00:0
3	567	Edward	2.9	2000	12/21/1996, 12:00:
4	987	Helen	3.7	800	3/27/1997, 12:00:0
5	456	Doris	3.9	1000	7/24/1997, 12:00:0
6	765	Jay	2.9	1500	8/8/1998, 12:00:00
7	543	Craig	3.4	2000	8/27/1998, 12:00:0

QUERY – 8

List the sID , cName , decision of application that are accepted.

ASSIGNMENT 1_2415000893.sql*

```sql

SELECT major from APPLY ;

SELECT sID , cName , decision from APPLY where decision = 'Y'
```

Query result | Script output | DBMS output | Explain Plan | SQL histo

Download | Execution time: 0.005 seconds

	SID	CNAME	DECISION
1	123	Berkeley	Y
2	123	Cornell	Y
3	123	MIT	Y
4	123	Cornell	Y
5	123	Berkeley	Y
6	123	MIT	Y
7	123	Cornell	Y
8	123	Berkeley	Y
9	123	Cornell	Y
10	123	MIT	Y
11	123	Cornell	Y

QUERY – 9

List the sID , cName of applications which are filled by Stanford

ASSIGNMENT 1_2415000893.sql*

```sql
SELECT sID , cName , decision from APPLY where decisio

SELECT sID,cName FROM APPLY where cName = 'Stanford';
```

Query result | Script output | DBMS output | Explain Plan | S

Download | Execution time: 0.002 seconds

	SID	CNAME
1	123	Stanford
2	123	Stanford
3	123	Stanford
4	123	Stanford
5	123	Stanford
6	123	Stanford

QUERY – 10

List the colleges that have enrollment greater than 10001.

ASSIGNMENT 1_2415000893.sql*

```sql
SELECT *from Student where Dob >'01-JUL-1996' order by Dob;

SELECT cName from College where enrollment > 10001;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download Execution time: 0.008 seconds

	CNAME
1	Stanford
2	Berkeley
3	Cornell
4	Harvard
5	Stanford
6	Berkeley
7	Cornell
8	Harvard
9	Stanford
10	Berkeley
11	Cornell

QUERY – 11

List the colleges not in California

ASSIGNMENT 1_2415000893.sql*

```
SELECT *from Student where Dob >'01-JUL-1996' order by Dob;

SELECT cName from College where enrollment > 10001;

SELECT cName from College where state !='CA';
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download Execution time: 0.004 seconds

	CNAME
1	MIT
2	Cornell
3	Harvard
4	MIT
5	Cornell
6	Harvard
7	MIT
8	Cornell
9	Harvard
10	MIT
11	Cornell

QUERY – 12

List names of all students who came from high school having size greater than 17000 and scored GPA less than 3.8.

ASSIGNMENT 1_2415000893.sql*

```
SELECT cName from College where state !='CA';

SELECT sName from Student where sizeHS >1700 and GPA <3.8;

DESCRIBE Student;

SELECT * FROM Student ;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download Execution time: 0.066 seconds

	SNAME
1	Edward
2	Craig

QUERY-13

Display the description of the Student table.

ASSIGNMENT 1_2415000893.sql*

```sql

SELECT sName from Student where sizeHS >17000 and GPA <3.8;

DESCRIBE Student;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

```
SNAME
-------
Amy
Amy
Amy
Doris
Fay
Irene
Amy

Elapsed: 00:00:00.005
7 rows selected.
```

```
SQL> DESCRIBE Student


Name   Null? Type
------ ----- ------------
SID          NUMBER(38)
SNAME        VARCHAR2(10)
GPA          NUMBER(2,1)
SIZEHS       NUMBER(38)
DOB          DATE
```

QUERY-14

Display the details of all students.

ASSIGNMENT 1_2415000893.sql*

```
SELECT sName from Student where sizeHS >17000 and GPA <3.8;

DESCRIBE Student;

SELECT * FROM Student ;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download | Execution time: 0.005 seconds

	SID	SNAME	GPA	SIZEHS	DOB
6	234	Bob	3.6	1500	4/7/1995, 12:00:00
7	345	Craig	3.5	500	2/4/1995, 12:00:00
8	456	Doris	3.9	1000	7/24/1997, 12:00:0
9	567	Edward	2.9	2000	12/21/1996, 12:00:
10	678	Fay	3.8	200	8/27/1996, 12:00:0
11	789	Gary	3.4	800	10/8/1996, 12:00:0
12	987	Helen	3.7	800	3/27/1997, 12:00:0
13	876	Irene	3.9	400	3/7/1996, 12:00:00
14	765	Jay	2.9	1500	8/8/1998, 12:00:00
15	654	Amy	3.9	1000	5/26/1996, 12:00:0
16	543	Craig	3.4	2000	8/27/1998, 12:00:0

QUERY-15

Display unique majors .

ASSIGNMENT 1_2415000893.sql*

```
UPDATE student SET GPA = GPA+1.5 where GPA<3.5 and

DELETE from Student where GPA < 3.2;

SELECT major from APPLY ;
```

Query result | Script output | DBMS output | Explain Plan

Download Execution time: 0.005 seconds

	MAJOR
1	CS
2	EE
3	biology
4	bioengineering
5	bioengineering
6	CS
7	EE
8	CS
9	biology
10	marine biology
11	history

QUERY – 16

List the student names those are having 3 characters in their names.

ASSIGNMENT 1_2415000893.sql*

```sql
DESCRIBE Student;

SELECT * FROM Student ;

SELECT sName from Student where sName LIKE '___';
```

Query result | Script output | DBMS output | Explain Plan

Download | Execution time: 0.003 seconds

	SNAME
1	Amy
2	Bob
3	Amy
4	Bob
5	Fay
6	Jay
7	Amy
8	Amy
9	Bob
10	Amy

Fay

QUERY – 17

List the student names those are starting with ‘H’ and with 5 characters.

ASSIGNMENT 1_2415000893.sql*

```
51  DESCRIBE Student;
52
53  SELECT * FROM Student ;
54
55  SELECT sName from Student where sName LIKE '___';
56
57  SELECT sName from Student where sName LIKE 'H____';
58
```

Query result | Script output | DBMS output | Explain Plan | S

Download | Execution time: 0.003 seconds

Show statement

	SNAME
1	Helen
2	Helen
3	Helen

QUERY – 18

List the student names those are having third character and fifth character must be ‘e’.

ASSIGNMENT 1_2415000893.sql*

```
SELECT sName from Student where sName LIKE '___';

SELECT sName from Student where sName LIKE 'H____';

SELECT sName from Student where sName LIKE '__e_e';
```

Query result | Script output | DBMS output | Explain Plan

Download | Execution time: 0.002 seconds

	SNAME
1	Irene
2	Irene
3	Irene

QUERY – 19

List the student names ending with ‘y’

ASSIGNMENT 1_2415000893.sql*

```sql
SELECT sName from Student where sName LIKE '___';

SELECT sName from Student where sName LIKE 'H____';

SELECT sName from Student where sName LIKE '__e_e';

SELECT sName from Student where sName LIKE '%y';
```

Query result | Script output | DBMS output | Explain Plan

Download | Execution time: 0.004 seconds

	SNAME
2	Amy
3	Fay
4	Gary
5	Jay
6	Amy
7	Amy
8	Amy
9	Fay
10	Gary
11	Jay

QUERY – 20

List the student in the order of their GPA .

ASSIGNMENT 1_2415000893.sql*

```sql
SELECT sName from Student where sName LIKE 'H____';

SELECT sName from Student where sName LIKE '__e_e';

SELECT sName from Student where sName LIKE '%y';

SELECT sName from Student order by GPA;
```

Query result | Script output | DBMS output | Explain Plan

Download Execution time: 0.005 seconds

	SNAME
1	Edward
2	Jay
3	Jay
4	Edward
5	Edward
6	Jay
7	Gary
8	Gary
9	Gary
10	Craig

QUERY – 21

List the details of the students in order of the ascending of GPA and descending of DoB.

ASSIGNMENT 1_2415000893.sql*

```
SELECT sName from Student where sName LIKE '__e_e';

SELECT sName from Student where sName LIKE '%y';

SELECT sName from Student order by GPA;

SELECT * from Student order by GPA , DoB DESC;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download | Execution time: 0.007 seconds

	SID	SNAME	GPA	SIZEHS	DOB
3	765	Jay	2.9	1500	8/8/1998, 12:00:00
4	567	Edward	2.9	2000	12/21/1996, 12:00:
5	567	Edward	2.9	2000	12/21/1996, 12:00:
6	567	Edward	2.9	2000	12/21/1996, 12:00:
7	543	Craig	3.4	2000	8/27/1998, 12:00:0
8	543	Craig	3.4	2000	8/27/1998, 12:00:0
9	543	Craig	3.4	2000	8/27/1998, 12:00:0
10	789	Gary	3.4	800	10/8/1996, 12:00:0
11	789	Gary	3.4	800	10/8/1996, 12:00:0
12	789	Gary	3.4	800	10/8/1996, 12:00:0

QUERY – 22

List the sIDs of student who apply in either ‘Stanford’ , ‘Cornell’ or ‘MIT’ College .

ASSIGNMENT 1_2415000893.sql*

```
SELECT sID, cName, decision from Apply;

SELECT sID from APPLY where cName = 'CORNEL' , 'MIT' , .'STAFORD' ;
```

Query result | Script output | DBMS output | Explain Plan | SQL history

Download ▾ Execution time: 0.004 seconds

	SNAME	DOB
7	Edward	12/21/1996, 12:00:0
8	Fay	8/27/1996, 12:00:0
9	Gary	10/8/1996, 12:00:0
10	Helen	3/27/1997, 12:00:0
11	Irene	3/7/1996, 12:00:00
12	Jay	8/8/1998, 12:00:00
13	Amy	5/26/1996, 12:00:0
14	Craig	8/27/1998, 12:00:0
15	Amy	6/26/1996, 12:00:0
16	Bob	4/7/1995, 12:00:00
17	Craig	2/4/1995, 12:00:00

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QUERY – 23

Delete all applications filled at Stanford.

ASSIGNMENT 1_2415000893.sql*

```
SELECT sID, cName, decision from Apply;

SELECT sID from APPLY where cName = 'CORNEL' , 'MIT' , .'S

DELETE from APPLY  where cName = 'Stanford';
```

Query result | Script output | DBMS output | Explain Plan | SQL h

```
*Action:   Take the action that corresponds with the Cause
           1. Check that your SQL statement has no typos.
           2. Check Oracle Database documentation to find the
           correct syntax for the clause and update the problematic
           clause appropriately.
           3. Check Oracle Database documentation to find the correct
           syntax for the statement and remove the unsupported clause.
           4. Enter two single quotes instead of one to represent an
           apostrophe within a string.
*Params:   1) keyword_value
           keyword near the keyword causing the error. The keyword value
           may be truncated for readability if it is too long.
           2) previous_keyword_values: a sequence of keyword values that
           immediately precede the keyword_value in the command. The
           sequence of previous keyword values may be truncated if it is
           too long.
Error at Line: 1 Column: 44
```

```
SQL> DELETE from APPLY   where cName = 'Stanford'


18 rows deleted.

Elapsed: 00:00:00.006
```

QUERY – 24

Delete the college Stanford from college table.

ASSIGNMENT 1_2415000893.sql*

```sql
SELECT sID from APPLY where cName = 'CORNEL' , 'MIT'

DELETE from APPLY   where cName = 'Stanford';

DELETE from College where cName = 'Stanford';
```

Query result | Script output | DBMS output | Explain Plan

Download Execution time: 0.004 seconds

	SNAME	DOB
1	Amy	6/26/1996, 12:00:0
2	Bob	4/7/1995, 12:00:00
3	Amy	6/26/1996, 12:00:0
4	Bob	4/7/1995, 12:00:00
5	Craig	2/4/1995, 12:00:00
6	Doris	7/24/1997, 12:00:0
7	Edward	12/21/1996, 12:00:
8	Fay	8/27/1996, 12:00:0
9	Gary	10/8/1996, 12:00:0
10	Helen	3/27/1997, 12:00:0
11	Irene	3/7/1996, 12:00:00

QUERY – 25

Modify the GPA of all students by giving 10% raise in their GPA .

ASSIGNMENT 1_2415000893.sql*

```
SELECT sID, cName, decision from Apply;

SELECT sID from APPLY where cName = 'CORNEL' , 'M

DELETE from APPLY   where cName = 'Stanford';

DELETE from College where cName = 'Stanford';

UPDATE Student SET GPA = GPA * 1.10;
```

Query result | Script output | DBMS output | Explain Plan

```
18 rows deleted.

Elapsed: 00:00:00.006

SQL> UPDATE Student SET GPA = GPA * 1.10


64 rows updated.

Elapsed: 00:00:00.004

SQL> UPDATE Student SET GPA = GPA * 1.10


64 rows updated.

Elapsed: 00:00:00.001
```

QUERY – 26

Increment GPA by 1.5 for students whose GPA < 3.5 and HSsize >1500

ASSIGNMENT 1_2415000893.sql*

```
88  DELETE from College where cName = 'Stanford';
89
90  UPDATE Student SET GPA = GPA * 1.10;
91
92  UPDATE student SET GPA = GPA+1.5 where GPA<3.5 and sizeHS >
93
```

Query result | Script output | DBMS output | Explain Plan | SQL his

```
0 rows updated.

Elapsed: 00:00:00.003

SQL> UPDATE student SET GPA = GPA+1.5 where GPA<3.5 and sizeHS >150


0 rows updated.

Elapsed: 00:00:00.003

SQL> UPDATE student SET GPA = GPA+1.5 where GPA<3.5 and sizeHS >1500


0 rows updated.

Elapsed: 00:00:00.001
```

QUERY – 27

Delete students who have scored less than 3.2 GPA.

ASSIGNMENT 1_2415000893.sql*

```sql
UPDATE student SET GPA = GPA+1.5 where

DELETE from Student where GPA < 3.2;
```

Query result | Script output | DBMS output

```
0 rows updated.

Elapsed: 00:00:00.001

SQL> DELETE from Student where GPA <3.2


0 rows deleted.

Elapsed: 00:00:00.003

SQL> DELETE from Student where GPA < 3.2


0 rows deleted.

Elapsed: 00:00:00.003
```