# GLA UNIVERSITY, MATHURA



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Section: CA

**Roll No.: 24** 

**University Roll No.: 2315510088** 

Course: BTECH. CS (AIML & IOT)

**Subject: DATABASE MANAGEMENT SYSTEM LAB** 

Subject Code: CSE3083

Assignment: 01

Faculty: MR. SURENDRA KUMAR

# **STRUCTURES**

College

Column Name	Data type	Size
cName	varchar2	10
state	varchar2	10
enrollment	int	121

Student

Column Name	Data type	Size
sID	int	
sName	varchar2	10
GPA	number	2,1
sizeHS	int	
DoB	date	

Apply

Column Name	Data type	Size
sID	int	1.00
cName	varchar2	10
major	varchar2	20
decision	char	1

## **TABLES**

Student

sID	sName	GPA	sizeHS	DoB
123	Amy	3.9	1000	26-JUN-96
234	Bob	3.6	1500	7-Apr-95
345	Craig	3.5	500	4-Feb-95
456	Doris	3.9	1000	24-Jul-97
567	Edward	2.9	2000	21-Dec-96
678	Fay	3.8	200	27-Aug-96
789	Gary	3.4	800	8-Oct-96
987	Helen	3.7	800	27-Mar-97
876	Irene	3.9	400	7-Mar-96
765	Jay	2.9	1500	8-Aug-98
654	Amy	3.9	1000	26-May-96
543	Craig	3.4	2000	27-Aug-98

College

cName	state	enrollment
Stanford	CA	15000
Berkeley	CA	36000
MIT	MA	10000
Cornell	NY	21000
Harvard	MA	50040

Apply

sID	cName	major	decision
123	Stanford	CS	Y
123	Stanford	EE	N
123	Berkeley	CS	Y
123	Cornell	EE	Y
234	Berkeley	biology	N
345	MIT	bioengineering	Υ
345	Cornell	bioengineering	N
345	Cornell	CS	Y
345	Cornell	EE	N
678	Stanford	history	Y
987	Stanford	CS	Y
987	Berkeley	CS	Υ
876	Stanford	CS	N
876	MIT	biology	Υ
876	MIT	marine biology	N
765	Stanford	history	Y
765	Cornell	history	N
765	Cornell	psychology	Y
543	MIT	CS	N

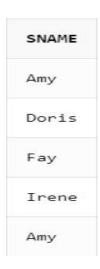
1. List the student name, dob from student table.

Ans. Select sName, dob from student;

SNAME	DOB
Amy	26-JUN-96
Bob	07-APR-95
Craig	04-FEB-95
Doris	24-JUL-97
Edward	21-DEC-96
Fay	27-AUG-96
Gary	08-0CT-96
Helen	27-MAR-97
Irene	07-MAR-96
Jay	08-AUG-98
Amy	26-MAY-96
Craig	27-AUG-98

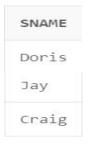
2. List the name of student scoring more than 3.7 in GPA.

Ans. Select sName from student where GPA > 3.7;



3. List the name of student whose High School size is atleast 1000 and born after 1996.

Ans. select same from student where sizehs >= 1000 and to\_date (dob, 'dd-mon-yy') > to\_date('31-dec-96', 'dd-mon-yy');



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

Ans. select sname from student where gpa between 2.9 and 3.9;

SNAME
Amy
Bob
Craig
Doris
Edward
Fay
Gary
Helen
Irene
Jay
Amy
Craig

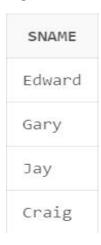
5. List all the details of colleges who situated in MA.

Ans. Select \* from college where state = 'MA';

CNAME	STATE	ENROLLMENT
MIT	MA	10000
Harvard	MA	50040

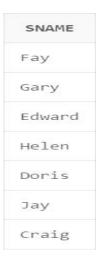
6. List the students who are scored more than 2.0 but less than 3.5.

Ans. select sname from student where gpa > 2.0 and gpa < 3.5;



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

Ans. select sname from student where dob >to\_date(dob,'dd-mon-yy') > to date('01-jul-96','dd-mon-yy') order by to date(dob,'dd-mon-yy');



8. List the sID, cName, decision of applications that are accepted.

Ans. select sid, cname, decision from apply where decision = 'y';

SID	CNAME	DECISION
123	Stanford	Y
123	Berkeley	Y
123	Cornell	Y
345	MIT	Υ
345	Cornell	Υ
678	Stanford	Y
987	Stanford	Υ
987	Berkeley	Y
876	MIT	Y
765	Stanford	Y
765	Cornell	Υ

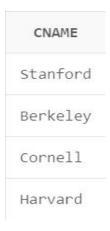
9. List the sID, cName of applications which are filled at Stanford.

Ans. select sid, cname from apply where cname='standford';

SID	CNAME	
123	Stanford	
123	Stanford	
678	Stanford	
987	Stanford	
876	Stanford	
765	Stanford	

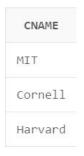
10. List the colleges that that has enrollment greater than 10001.

Ans. select cName from college where enrollment > 10001;



11. List the colleges not in California.

Ans. select cName from college where state != 'CA';



12. List names of all student who came from high school having size greater than 1700 and scored GPAless than 3.8.

Ans. select sname from student where sizehs > 1700 and gpa < 3.8;



## 13. Display the description of the Student table.

#### Ans. desc student;

Column	Null?	Туре
SID	270	NUMBER
SNAME	(-)	VARCHAR2(20)
GPA	122	FLOAT(126)
SIZEHS	658	NUMBER
DOB	-	DATE

## 14. Display the details of all students.

## Ans. select \* from student;

SID	SNAME	GPA	SIZEHS	DOB
123	Amy	3.9	1000	26-JUN-96
234	Bob	3.6	1500	07-APR-95
345	Craig	3.5	500	04-FEB-95
456	Doris	3.9	1000	24-JUL-97
567	Edward	2.9	2000	21-DEC-96
678	Fay	3.8	200	27-AUG-96
789	Gary	3.4	800	08-0CT-96
987	Helen	3.7	800	27-MAR-97
876	Irene	3.9	400	07-MAR-96
765	Јау	2.9	1500	08-AUG-98
654	Amy	3.9	1000	26-MAY-96
543	Craig	3.4	2000	27-AUG-98

15. Display unique majors.

Ans. select distinct major from apply;

MAJO	R
marine b	iology
psycholog	gy
EE	
biology	
history	
bioengin	eering
CS	

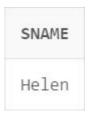
16. List the student names those are having three characters in their Names.

**Ans.** select sname from student where sname like '\_\_\_';



17. List the student names those are starting with 'H' and with five characters.

Ans. Select sname from student where sname like 'H\_\_\_\_';



18. List the student names those are having third character and fifth character must be 'e'.

Ans. select sname from student where sname like '\_\_e \_e';



19. List the student names ending with 'y'.

Ans. select sname from student where sname like '%y';

SNA	ME
Amy	•
Fay	,
Gar	'ny
Jay	,
Amy	,

20. List the Students in the order of their GPA.

Ans. select sname from student order by gpa;



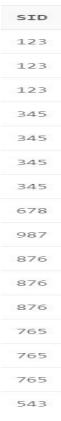
21. List the details of the students in order of the ascending of GPA and descending of DoB.

Ans. select \* from student order by gpa asc , dob desc;

SID	SNAME	GPA	SIZEHS	DOB
765	Јау	2.9	1500	08-AUG-98
567	Edward	2.9	2000	21-DEC-96
543	Craig	3.4	2000	27-AUG-98
789	Gary	3.4	800	08-0CT-96
345	Craig	3.5	500	04-FEB-95
234	Bob	3.6	1500	07-APR-95
987	Helen	3.7	800	27-MAR-97
678	Fay	3.8	200	27-AUG-96
456	Doris	3.9	1000	24-JUL-97
123	Amy	3.9	1000	26-JUN-96
654	Amy	3.9	1000	26-MAY-96
876	Irene	3.9	400	07-MAR-96

22. List the sIDs of student who apply in either 'Stanford', 'Cornell' or 'MIT' college.

Ans. select sid from apply where cname = 'stanford' or cname = 'cornell' or cname = 'MIT';



23. Delete all applications filled at Stanford.

Ans. delete from apply where cname = 'stanford';

SID	CNAME	MAJOR	DECISION
123	Berkeley	CS	Y
123	Cornell	EE	Y
234	Berkeley	biology	N
345	MIT	bioengineering	Y
345	Cornell	bioengineering	N
345	Cornell	CS	Y
345	Cornell	EE	N
987	Berkeley	CS	Y
876	MIT	biology	Y
876	MIT	marine biology	N
765	Cornell	history	N
765	Cornell	psychology	Y
543	MIT	CS	N

24. Delete the college Stanford from college table.

Ans. delete from college where cname = 'stanford';

CNAME	STATE	ENROLLMENT
Berkeley	CA	36000
MIT	MA	10000
Cornell	NY	21000
Harvard	MA	50040

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

Ans. update student set gpa = gpa + gpa\*0.1;

SID	SNAME	GPA	SIZEHS	DOB
123	Amy	4.29	1000	26-JUN-96
234	Bob	3.96	1500	07-APR-95
345	Craig	3.85	500	04-FEB-95
456	Doris	4.29	1000	24-JUL-97
567	Edward	3.19	2000	21-DEC-96
678	Fay	4.18	200	27-AUG-96
789	Gary	3.74	800	08-OCT-96
987	Helen	4.07	800	27-MAR-97
876	Irene	4.29	400	07-MAR-96
765	Јау	3.19	1500	08-AUG-98
654	Amy	4.29	1000	26-MAY-96
543	Craig	3.74	2000	27-AUG-98

26. Increment the GPA of the students by 1.5 whose GPA is less than 3.5 and belong to High Schoolhaving size greater than 1500.

Ans. update student set gpa = gpa + 1.5 where gpa < 3.5 and sizehs > 1500;

SID	SNAME	GPA	SIZEHS	DOB
123	Amy	4.29	1000	26 - JUN - 96
234	Bob	3.96	1500	07-APR-95
345	Craig	3.85	500	04-FEB-95
456	Doris	4.29	1000	24-JUL-97
567	Edward	4.69	2000	21-DEC-96
678	Fay	4.18	200	27-AUG-96
789	Gary	3.74	800	08-OCT-96
987	Helen	4.07	800	27-MAR-97
876	Irene	4.29	400	07-MAR-96
765	Јау	3.19	1500	08-AUG-98
654	Amy	4.29	1000	26-MAY-96
543	Craig	3.74	2000	27-AUG-98

# 27. Delete the students who have scored less than 3.2 GPA.

Ans. delete from student where gpa < 3.2;

SID	SNAME	GPA	SIZEHS	DOB
123	Amy	4.29	1000	26-JUN-96
234	Bob	3.96	1500	07-APR-95
345	Craig	3.85	500	04-FEB-95
456	Doris	4.29	1000	24-JUL-97
567	Edward	4.69	2000	21-DEC-96
678	Fay	4.18	200	27-AUG-96
789	Gary	3.74	800	08-0CT-96
987	Helen	4.07	800	27-MAR-97
876	Irene	4.29	400	07-MAR-96
654	Amy	4.29	1000	26-MAY-96
543	Craig	3.74	2000	27-AUG-98