

Lab No: 01

1. Create a DB named "BUBT_DB1".

Query:

```
create database BUBT_DB1;
```

2. Create three tables in this DB named "Student", "Faculty", "Course".

Query:

```
CREATE table student(Name varchar(30),ST_ID int(2),NID int(3),Intake int(2),Section int(2),CGPA float(3.2));
```

```
INSERT INTO student VALUES('Ashraful','1','102','44','1','3.30');
```

```
INSERT INTO student VALUES('Tonny','2','101','44','1','3.50');
```

```
INSERT INTO student VALUES('Zakir','33','103','35','2','3.98');
```

```
INSERT INTO student VALUES('Urmi','6','104','35','1','3.96');
```

```
INSERT INTO student VALUES('Tonny','23','105','44','1','3.50');
```

Output:

Extra options					
Name	ST_ID	NID	Intake	Section	CGPA
Ashraful	1	102	44	1	3.3
Tonny	2	101	44	1	3.5
Zakir	33	103	35	2	3.98
Urmi	6	104	35	1	3.96
Tonny	23	105	44	1	3.5

```
CREATE TABLE Faculty(Name varchar(30),Short_Code varchar(7),Course_Code varchar(8),Conduct_Semester varchar(15));
```

```
INSERT INTO faculty VALUES('Farha Akhter Munmun','FAM','CSE 319','Summer 2019');
```

```
INSERT INTO faculty VALUES('Sweety Lima','SWL','CSE 209','Fall 2019-20');
```

```
INSERT INTO faculty VALUES('Shumi Khatun','SKN','NULL','Summer 2019');
```

```
INSERT INTO faculty VALUES('Nadia Afrin Ritu','NULL','CSE 351','NULL');
```

Output:

Extra options			
Name	Short_Code	Course_Code	Conduct_Semester
Farha Akhter Munmun	FAM	CSE 319	Summer 2019
Sweety Lima	SWL	CSE 209	Fall 2019-20
Shumi Khatun	SKN	NULL	Summer 2019
Nadia Afrin Ritu	NULL	CSE 351	NULL

```
CREATE TABLE Course(Course_Title varchar(30),Course_Code varchar(8));
```

```
INSERT INTO course VALUES ('Database Systems', 'CSE 207');
```

```
INSERT INTO course VALUES('Computer Networks', 'CSE 319');
```

```
INSERT INTO course VALUES('Data Communication', 'CSE 209');
```

```
INSERT INTO course VALUES('System Analysis Design', NULL);
```

Extra options	
Course_Title	Course_Code
Database Systems	CSE 207
Computer Networks	CSE 319
Data Communication	CSE 209
System Analysis Design	NULL

3.

a) Update the short code whose short code is NULL.

Query:

```
UPDATE faculty SET Short_Code='NAR' WHERE Name='Nadia Afrin Ritu';
```

Name	Short_Code	Course_Code	Conduct_Semester
Farha Akhter Munmun	FAM	CSE 319	Summer 2019
Sweetly Lima	SWL	CSE 209	Fall 2019-20
Shumi Khatun	SKN	CSE 207	Summer 2019
Nadia Afrin Ritu	NAR	CSE 351	Summer 2020

b) Update the course code that is NULL.

Query:

```
UPDATE faculty SET Course_Code='CSE 207' WHERE Name='Shumi Khatun';
```

Name	Short_Code	Course_Code	Conduct_Semester
Farha Akhter Munmun	FAM	CSE 319	Summer 2019
Sweetly Lima	SWL	CSE 209	Fall 2019-20
Shumi Khatun	SKN	CSE 207	Summer 2019
Nadia Afrin Ritu	NAR	CSE 351	Summer 2020

```
UPDATE course SET Course_Code='CSE 323' WHERE Course_Title='System Analysis Design';
```

Course_Title	Course_Code
Database Systems	CSE 207
Computer Networks	CSE 319
Data Communication	CSE 209
System Analysis Design	CSE 323

c) Update the conduct semester that is NULL.

Query:

```
UPDATE faculty SET Conduct_Semester='Summer 2020' WHERE Name='Nadia Afrin Ritu';
```

d) Add a new column named "Age" in student relation.

Query:

```
ALTER TABLE student ADD COLUMN Age int(3);
```

e) Update the age of each student.

Query:

```
UPDATE student SET Age='21' WHERE NID='102';
```

```
UPDATE student SET Age='19' WHERE NID='101';
```

```
UPDATE student SET Age='22' WHERE NID='103';
```

```
UPDATE student SET Age='24' WHERE NID='104';
```

```
UPDATE student SET Age='20' WHERE NID='105';
```

F) Find the names of all Courses in the Course relation.

Query:

```
select Course_Title from course;
```

Name	ST_ID	NID	Intake	Section	CGPA	Age
Ashraful	1	102	44	1	3.3	21
Tonny	2	101	44	1	3.5	19
Zakir	33	103	35	2	3.98	22
Urmi	6	104	35	1	3.96	24
Tonny	23	105	44	1	3.5	20

Extra options

Course_Title

Database Systems

Computer Networks

Data Communication

System Analysis Design

G) Find the names of all teachers who has conducted in summer 2019.

Query:

```
select Name from faculty where Conduct_semester="Summer 2019";
```

Name

Farha Akhter Munmun

Shumi Khatun

H) Find the names of all students whose CGPA is greater than 3.50

Query:

```
SELECT Name from student where CGPA>3.50;
```

Extra options

Name

Zakir

Urmi

I) Add a new column "Offered Semester" after the column "Course Title".

Query:

```
ALTER table course ADD column Offered_Semester varchar(30) AFTER Course_Title;
```

I) Add a new column "Offered Semester" after the column "Course Title".

Query:

```
ALTER table course ADD column Offered_Semester varchar(30) AFTER Course_Title;
```

Extra options

Course_Title	Offered_Semester	Course_Code
Database Systems	NULL	CSE 207
Computer Networks	NULL	CSE 319
Data Communication	NULL	CSE 209
System Analysis Design	NULL	CSE 323

J) Find the name and CGPA of each student order by their CGPA (ascending order).

Query:

SELECT Name, CGPA from student ORDER by CGPA ASC;

Name	CGPA	1
Ashraful	3.3	
Tonny	3.5	
Tonny	3.5	
Urmi	3.96	
Zakir	3.98	

K) Find the name of all students whose age is greater than 22 and CGPA is greater than 3.50

Query:

SELECT Name from student where Age>22 AND CGPA>3.50;

Extra options
Name
Urmi
<input type="checkbox"/> Show all Nur

L) Find the ID of all those students who are from 44 intake or CGPA is less than 3.40

Query:

select ST_ID from student WHERE Intake=44 OR CGPA<3.40;

ST_ID
1
2
23

M) Find the ID of all those students whose CGPA is 3.30 or 3.50 or 3.96

Query:

select Student_ID from student where CGPA=3.30 OR CGPA=3.50 OR CGPA=3.96;

select ST_ID from student WHERE CGPA=3.30 OR CGPA=3.50 OR CGPA=3.96;

Extra options
ST_ID
2
23
<input type="checkbox"/> Show a