# INTERNATIONAL ISLAMIC UNIVERSITY CHITTAGONG

## Department Of Computer Science & Engineering

# PROJECT

## Course Selection System Database

*Course Title – Database Management System (Lab)*

*Couse Code – cse-2424*

## SUBMITTED BY

### NAME: ARIF RAHMAN SIKDER

### ID: C211024

### SECTION: 4AM

## SUBMITTED TO

### NAME: DR. MOHAMMED AMAN ULLAH

### ASSOCIATE PROFESSOR, IIUC

# Abstract:

The way this course selection database is set up will make choosing and registering for courses simpler, more effective, and less time-consuming.

It is the perfect answer for university management since it helps to eliminate duplication of effort, boost productivity, maintain effective governance, and deliver quality services to both students and faculty members.

This is a simple course selection system in which a student can choose his own courses as well as courses taught by specific teachers. I have also included an advisor entity that will provide necessary feedback about the student and determine whether the student is eligible to take that course based on his CGPA.

# Course Selection System Database Schema:

1)**Student** (<u>S_id</u>, S_name, S_dept, CGPA, S_contact, S_email)

2)**Teacher** (<u>T_id</u>, T_name, T_email, T_address, S_id)

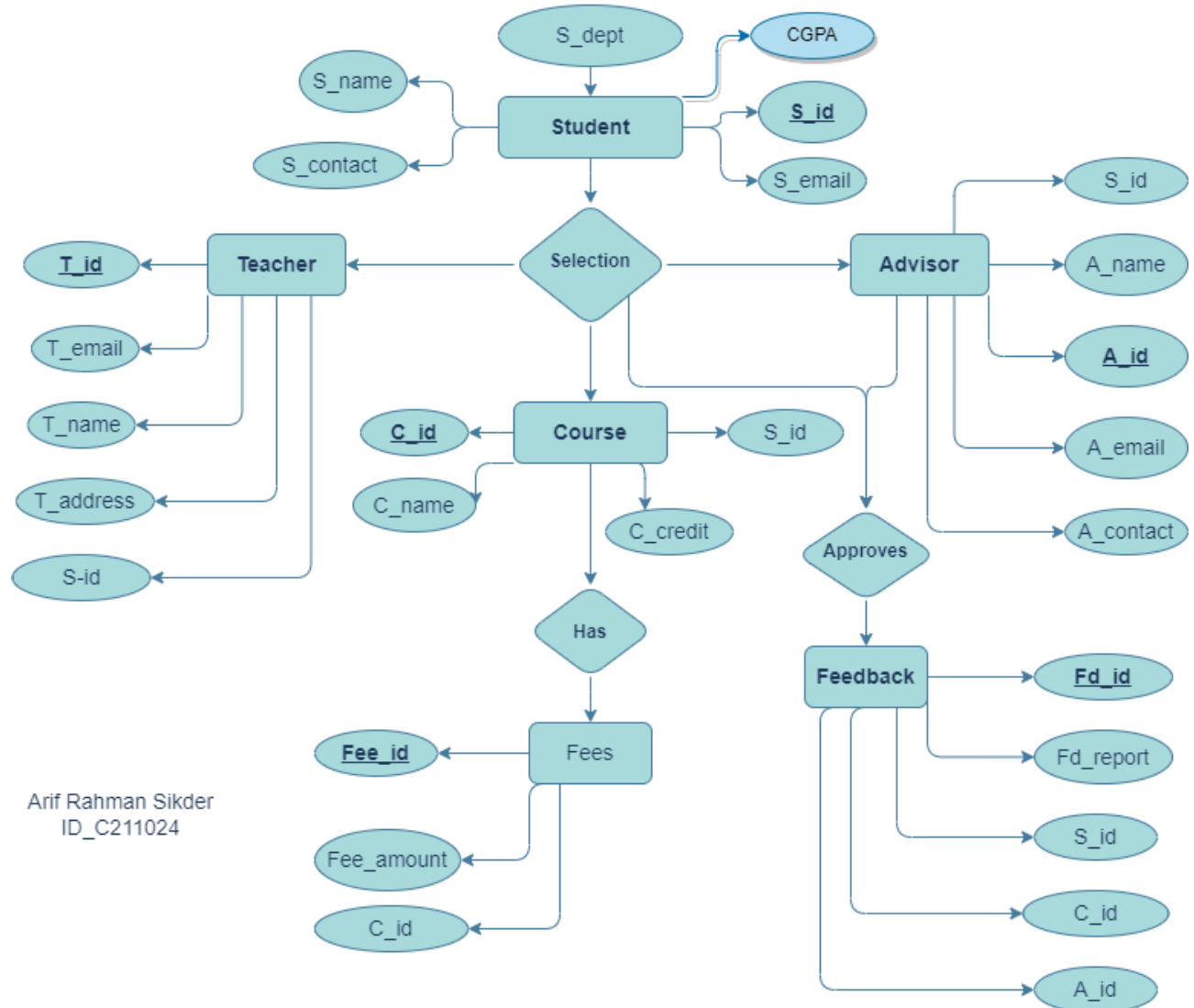3)**Course** (<u>C_id</u>, C_name, S_id, C_credit)

4)**Advisor** (<u>A_id</u>, A_name, A_email, A_contact, S_id)

5)**Fees** (<u>F_id</u>, F_amount, C_id)

6)**Feedback** (<u>Fd_id</u>, Fd_report, S_id, C_id, S_id)

# Entity Relationship Diagram(ERD):

**Course Selection System (ERD)**



Arif Rahman Sikder
ID_C211024

# ERD link:

https://drive.google.com/drive/u/1/folders/1vzshCL
Z1NVUXpWfwvc8MCVZqSNDklRj7

# Data and SQL

## *STUDENT*

## SQL:

```
CREATE TABLE  "STUDENT"
   (  "S_ID" VARCHAR2(10) NOT NULL ENABLE,
      "S_NAME" VARCHAR2(40),
      "S_DEPT" VARCHAR2(10),
      "S_CONTACT" VARCHAR2(15),
      "S_EMAIL" VARCHAR2(30),
      "CGPA" NUMBER NOT NULL ENABLE,
       CONSTRAINT "STUDENT_PK" PRIMARY KEY ("S_ID") ENABLE
   )
/
```

## Table:

| S_ID | S_NAME | S_DEPT | S_CONTACT | S_EMAIL | CGPA |
|------|--------|--------|-----------|---------|------|
| C211025 | Iftekhar Alam | CSE | 01819909323 | c211025@ugrad.iiuc.ac.bd | 3.22 |
| C211004 | Monjurul Hoque | EEE | 01819909444 | c211004@ugrad.iiuc.ac.bd | 3.91 |
| C211007 | Samiul Shuvo | EEE | 01819909555 | c211007@ugrad.iiuc.ac.bd | 3.67 |
| c211001 | Rakibul Islam Bijoy | CSE | 01819909323 | c211002@ugrad.iiuc.ac.bd | 3.81 |
| C211024 | Arif Rahman Sikder | CSE | 01830065110 | c211024@ugrad.iiuc.ac.bd | 3.17 |
| C211035 | Md Ismail | CSE | 01690012345 | c211025@ugrad.iiuc.ac.bd | 3.95 |
| C211001 | Anamul Hoque | CSE | 01813620787 | c211001@ugrad.iiuc.ac.bd | 3.8 |
| C211003 | Sakibul Islam | CSE | 01819909343 | c211003@ugrad.iiuc.ac.bd | 3.71 |
| C211021 | Rahimul Islam | CSE | 01838886565 | c211021@ugrad.iiuc.ac.bd | 3.25 |
| C211032 | Rashedul Arefin Ifty | CSE | 01830065120 | c211032@ugrad.iiuc.ac.bd | 3.75 |

# *TEACHER*

## SQL:

```
CREATE TABLE  "TEACHER"
   (  "T_ID" VARCHAR2(10) NOT NULL ENABLE,
      "S_ID" VARCHAR2(10),
      "T_NAME" VARCHAR2(40),
      "T_EMAIL" VARCHAR2(30),
      "T_ADDRESS" VARCHAR2(40),
       CONSTRAINT "TEACHER_PK" PRIMARY KEY ("T_ID") ENABLE,
       CONSTRAINT "TEACHER_FK" FOREIGN KEY ("S_ID")
        REFERENCES  "STUDENT" ("S_ID") ENABLE
   )
/
```

## Table:

| T_ID | S_ID | T_NAME | T_EMAIL | T_ADDRESS |
|------|------|--------|---------|-----------|
| T0003 | C211024 | Aman Ullah | AmanUllah@gmail.com | chandgaon,chattogram |
| T0005 | C211032 | Shaiyan Ameen | shaiyanameen@gmail.com | muradpur,chattogram |
| T0001 | C211001 | Rashedul Islam | Rashedulismal@gmail.com | bahaddarhat,chattogram |
| T0004 | C211035 | Akm Sabbir Ahmed | sabbirahmed@gmail.caom | bahaddarhat,chattogram |
| T0009 | C211007 | Rafid arefin | rafidarefin@gmail.com | gec,chattogram |
| T0006 | C211025 | Ariful Hoque Siddique | Arifulhoque@gmail.com | oxygen,chattogram |
| T0007 | C211008 | Sajidul hoque | sajidulhoque@gmail.com | sitakunda,chattogram |
| T0010 | C211004 | kamal Uddin | kamaluddin@gmail.com | terminal,chattogram |
| T0002 | C211003 | Chowdhury Hossain | Chowdhuryhossain@gmail.com | chandgaon,chattogram |
| T0008 | C211021 | Monjurul Hoque | monjurulhoque@gmail.com | oxygen,chattogram |

# *COURSE*

# SQL:

```
CREATE TABLE  "COURSE"
   (  "C_ID" VARCHAR2(10),
      "C_NAME" VARCHAR2(40),
      "C_CREDIT" VARCHAR2(10),
      "S_ID" VARCHAR2(10),
       CONSTRAINT "COURSE_PK" PRIMARY KEY ("C_ID") ENABLE,
       CONSTRAINT "COURSE_FK" FOREIGN KEY ("S_ID")
        REFERENCES  "STUDENT" ("S_ID") ENABLE
   )
/
```

# Table:

| C_ID | C_NAME | C_CREDIT | S_ID |
|------|--------|----------|------|
| 1002 | Algorithm | 3 | C211004 |
| 1004 | Programming 1 | 3 | C211008 |
| 1010 | URED | 1 | C211032 |
| 1006 | Theory of Computing | 3 | C211035 |
| 1008 | Bangla | 2 | C211003 |
| 1001 | Database | 3 | C211025 |
| 1003 | Data structure | 3 | C211007 |
| 1005 | Competitive programming | 1 | C211024 |
| 1007 | Digital Logic | 3 | C211001 |
| 1009 | Accounting | 2 | C211021 |

# *ADVISOR*

## SQL:

```
CREATE TABLE  "ADVISOR"
   (  "A_ID" VARCHAR2(10) NOT NULL ENABLE,
      "A_NAME" VARCHAR2(40),
      "A_EMAIL" VARCHAR2(30),
      "A_CONTACT" VARCHAR2(15),
      "S_ID" VARCHAR2(10),
       CONSTRAINT "ADVISOR_PK" PRIMARY KEY ("A_ID") ENABLE,
       CONSTRAINT "ADVISOR_FK" FOREIGN KEY ("S_ID")
        REFERENCES  "STUDENT" ("S_ID") ENABLE
   )
/
```

## Table:

| A_ID | A_NAME | A_EMAIL | A_CONTACT | S_ID |
|------|--------|---------|-----------|------|
| A010 | Masum Sikder | masumsikder@gmail.com | 01814404333 | C211032 |
| A006 | rifat hoque | rifathoque@gmail.com | 01860809033 | C211035 |
| A007 | Tafhim chowdhury | tafhimchowdhury@gmail.com | 01819909656 | C211001 |
| A009 | Muhammed Mlraj | muhammedMiraj@gmail.com | 01956323555 | C211021 |
| A001 | Monjurul islam | monjurulislam@gmail.com | 01819909322 | C211025 |
| A002 | Iftekharul Islam Joshim | Iftekhar@gmail.com | 01918990933 | C211004 |
| A004 | zubairul islam | zubairulislam@gmail.com | 01881388341 | C211008 |
| A008 | Arfat rahman | arfatrahman@gmail.com | 01881388541 | C211003 |
| A003 | Israkh howladar | ishrakhhowladar@gmail.com | 01919909455 | C211007 |
| A005 | Rahat Manjur | rahatmanjur@gmail.com | 01860709044 | C211024 |

# *FEES*

## SQL:

```
CREATE TABLE  "FEES"
   (  "FEE_ID" VARCHAR2(10) NOT NULL ENABLE,
      "FEE_AMOUNT" VARCHAR2(20),
      "C_ID" VARCHAR2(10),
       CONSTRAINT "FEES_PK" PRIMARY KEY ("FEE_ID") ENABLE,
       CONSTRAINT "FEES_CK1" CHECK (FEE_AMOUNT >= 0) ENABLE,
       CONSTRAINT "FEES_FK" FOREIGN KEY ("C_ID")
        REFERENCES  "COURSE" ("C_ID") ENABLE
   )
/
```

## Table:

| FEE_ID | FEE_AMOUNT | C_ID |
|--------|-----------|------|
| F3  | 3000 | 1003 |
| F6  | 3000 | 1006 |
| F10 | 1000 | 1010 |
| F2  | 3000 | 1002 |
| F5  | 1000 | 1005 |
| F8  | 2000 | 1008 |
| F1  | 3000 | 1001 |
| F4  | 3000 | 1004 |
| F7  | 3000 | 1007 |
| F9  | 2000 | 1009 |

# *FEEDBACK*

## SQL:

```
CREATE TABLE  "FEEDBACK"
   (  "FD_ID" VARCHAR2(10) NOT NULL ENABLE,
      "FD_REPORT" VARCHAR2(40),
      "S_ID" VARCHAR2(10),
      "C_ID" VARCHAR2(10),
      "A_ID" VARCHAR2(10),
       CONSTRAINT "FEEDBACK_PK" PRIMARY KEY ("FD_ID") ENABLE,
       CONSTRAINT "FEEDBACK_FK" FOREIGN KEY ("S_ID")
        REFERENCES  "STUDENT" ("S_ID") ENABLE,
       CONSTRAINT "FEEDBACK_FK2" FOREIGN KEY ("C_ID")
        REFERENCES  "COURSE" ("C_ID") ENABLE,
       CONSTRAINT "FEEDBACK_FK3" FOREIGN KEY ("A_ID")
        REFERENCES  "ADVISOR" ("A_ID") ENABLE
    )
/
```

## Table:

| FD_ID | FD_REPORT | S_ID | C_ID | A_ID |
|-------|-----------|---------|------|------|
| 7 | Accepted | C211035 | 1007 | A007 |
| 10 | Accepted | C211032 | 1010 | A010 |
| 1 | Accepted | C211025 | 1001 | A001 |
| 4 | Accepted | C211008 | 1004 | A004 |
| 6 | Rejected | C211024 | 1006 | A006 |
| 2 | Accepted | C211004 | 1002 | A002 |
| 5 | Rejected | C211024 | 1005 | A005 |
| 8 | Accepted | C211003 | 1008 | A008 |
| 3 | Accepted | C211007 | 1003 | A003 |
| 9 | Rejected | C211021 | 1009 | A009 |

# SEARCHING DATA FROM INDIVIDUAL TABLE (at least 10 ways)

1) Find student information about 'Iftekhar Alam'.

Ans:
select*
from STUDENT
where S_name = 'Iftekhar Alam';

| S_ID | S_NAME | S_DEPT | S_CONTACT | S_EMAIL | CGPA |
|------|--------|--------|-----------|---------|------|
| C211025 | Iftekhar Alam | CSE | 01819909323 | c211025@ugrad.iiuc.ac.bd | 3.22 |

2) Find the information of students who are studying EEE.

Ans:
select*
from STUDENT
where S_dept = 'EEE';

| S_ID | S_NAME | S_DEPT | S_CONTACT | S_EMAIL | CGPA |
|------|--------|--------|-----------|---------|------|
| C211004 | Monjurul Hoque | EEE | 01819909444 | c211004@ugrad.iiuc.ac.bd | 3.91 |
| C211007 | Samiul Shuvo | EEE | 01819909555 | c211007@ugrad.iiuc.ac.bd | 3.67 |

3) Find the highest CGPA from the student table;

Ans:
Select max (CGPA) from student;

| MAX(CGPA) |
|-----------|
| 3.95 |

1 rows returned in 0.00 seconds

4) Courses which contain highest credit.

Ans:

select * from course

where c_credit= 3;

| C_ID | C_NAME | C_CREDIT | S_ID |
|------|--------|----------|------|
| 1002 | Algorithm | 3 | C211004 |
| 1004 | Programming 1 | 3 | C211008 |
| 1006 | Theory of Computing | 3 | C211035 |
| 1001 | Database | 3 | C211025 |
| 1003 | Data structure | 3 | C211007 |
| 1007 | Digital Logic | 3 | C211001 |

5) List of all unique courses available.
Ans:
select distinct C_name
from Course;

| C_NAME |
|--------|
| Theory of Computing |
| Accounting |
| Database |
| Digital Logic |
| 3000 |
| Competitive programming |
| Algorithm |
| URED |
| Programming 1 |
| Bangla |
| Data structure |

6) Sort all the results of students by CGPA in ascending order.
   Ans:
   select * from Student
   order by CGPA;

| S_ID | S_NAME | S_DEPT | S_CONTACT | S_EMAIL | CGPA |
|------|--------|--------|-----------|---------|------|
| C211024 | Arif Rahman Sikder | CSE | 01830065110 | c211024@ugrad.iiuc.ac.bd | 3.17 |
| C211025 | Iftekhar Alam | CSE | 01819909323 | c211025@ugrad.iiuc.ac.bd | 3.22 |
| C211021 | Rahimul Islam | CSE | 01838886565 | c211021@ugrad.iiuc.ac.bd | 3.25 |
| C211007 | Samiul Shuvo | EEE | 01819909555 | c211007@ugrad.iiuc.ac.bd | 3.67 |
| C211003 | Sakibul Islam | CSE | 01819909343 | c211003@ugrad.iiuc.ac.bd | 3.71 |
| C211032 | Rashedul Arefin Ifty | CSE | 01830065120 | c211032@ugrad.iiuc.ac.bd | 3.75 |
| C211001 | Anamul Hoque | CSE | 01813620787 | c211001@ugrad.iiuc.ac.bd | 3.8 |
| C211008 | Rakibul Islam Bijoy | CSE | 01819909323 | c211002@ugrad.iiuc.ac.bd | 3.81 |
| C211004 | Monjurul Hoque | EEE | 01819909444 | c211004@ugrad.iiuc.ac.bd | 3.91 |
| C211035 | Md Ismail | CSE | 01690012345 | c211025@ugrad.iiuc.ac.bd | 3.95 |

7) Find teachers information whose name start at the beginning with 'A'.
   Ans:
   Select * from teacher
   where (t_name)like 'A%';

| T_ID | S_ID | T_NAME | T_EMAIL | T_ADDRESS |
|------|------|--------|---------|-----------|
| T0003 | C211024 | Aman Ullah | AmanUllah@gmail.com | chandgaon,chattogram |
| T0004 | C211035 | Akm Sabbir Ahmed | sabbirahmed@gmail.caom | bahaddarhat,chattogram |
| T0006 | C211025 | Ariful Hoque Siddique | Arifulhoque@gmail.com | oxygen,chattogram |

8) Information of the students who are rejected by their advisors .
   Ans:
   Select * from FEEDBACK
   where fd_report='Rejected';

| FD_ID | FD_REPORT | S_ID | C_ID | A_ID |
|-------|-----------|------|------|------|
| 6 | Rejected | C211024 | 1006 | A006 |
| 5 | Rejected | C211024 | 1005 | A005 |
| 9 | Rejected | C211021 | 1009 | A009 |

9)Select the amount of fees of individual courses.

Ans:
select Fee_id, Fee_amount, C_id
from fees;

| FEE_ID | FEE_AMOUNT | C_ID |
|--------|-----------|------|
| F3 | 3000 | 1003 |
| F6 | 3000 | 1006 |
| F10 | 1000 | 1010 |
| F2 | 3000 | 1002 |
| F5 | 1000 | 1005 |
| F8 | 2000 | 1008 |
| F1 | 3000 | 1001 |
| F4 | 3000 | 1004 |
| F7 | 3000 | 1007 |
| F9 | 2000 | 1009 |

10)Select all advisors information from advisor table.

Ans:

select A_id, A_name, A_email, A_contact

from Advisor;

| A_ID | A_NAME | A_EMAIL | A_CONTACT |
|------|--------|---------|-----------|
| A010 | Masum Sikder | masumsikder@gmail.com | 01814404333 |
| A006 | rifat hoque | rifathoque@gmail.com | 01860809033 |
| A007 | Tafhim chowdhury | tafhimchowdhury@gmail.com | 01819909656 |
| A009 | Muhammed MIraj | muhammedMiraj@gmail.com | 01956323555 |
| A001 | Monjurul islam | monjurulislam@gmail.com | 01819909322 |
| A002 | Iftekharul Islam Joshim | Iftekhar@gmail.com | 01918990933 |
| A004 | zubairul islam | zubairulislam@gmail.com | 01881388341 |
| A008 | Arfat rahman | arfatrahman@gmail.com | 01881388541 |
| A003 | Israkh howladar | ishrakhhowladar@gmail.com | 01919909455 |
| A005 | Rahat Manjur | rahatmanjur@gmail.com | 01860709044 |

# SEARCHING DATA IN POSSIBLE WAYS FROM MULTIPLE TABLE (at least 5 ways)

1)  Display student id by the order of advisor id
    Ans:
    select t_id, s_id from Student
    natural join Teacher
    order by t_id;

| T_ID | S_ID |
|------|---------|
| T0001 | C211001 |
| T0002 | C211003 |
| T0003 | C211024 |
| T0004 | C211035 |
| T0005 | C211032 |
| T0006 | C211025 |
| T0007 | C211008 |
| T0008 | C211021 |
| T0009 | C211007 |
| T0010 | C211004 |

2)  Display all the 'Rejected' feedback of the students from advisor along with their id due to low CGPA.
    Ans:
    select a_id, s_id, s_name, CGPA, Fd_report
    from student natural join feedback
    where fd_report = 'Rejected';

| A_ID | S_ID | S_NAME | CGPA | FD_REPORT |
|------|---------|-------------------|------|-----------|
| A006 | C211024 | Arif Rahman Sikder | 3.17 | Rejected |
| A009 | C211021 | Rahimul Islam | 3.25 | Rejected |

3) Display all the 'Accepted' feedback of the students from advisor along with their information due to moderate CGPA.

Ans:

select a_id, s_id, s_name, CGPA, Fd_report
from student natural join feedback
where fd_report = 'Accepted';

| A_ID | S_ID | S_NAME | S_DEPT | CGPA | FD_REPORT |
|------|------|--------|--------|------|-----------|
| A001 | C211025 | Iftekhar Alam | CSE | 3.22 | Accepted |
| A002 | C211004 | Monjurul Hoque | EEE | 3.91 | Accepted |
| A003 | C211007 | Samiul Shuvo | EEE | 3.67 | Accepted |
| A004 | C211008 | Rakibul Islam Bijoy | CSE | 3.81 | Accepted |
| A007 | C211035 | Md Ismail | CSE | 3.95 | Accepted |
| A005 | C211001 | Anamul Hoque | CSE | 3.8 | Accepted |
| A008 | C211003 | Sakibul Islam | CSE | 3.71 | Accepted |
| A010 | C211032 | Rashedul Arefin Ifty | CSE | 3.75 | Accepted |

4) Display all the fees for the courses with student information.

Ans:

select s_id, fee_id, fee_amount, c_id, c_credit
from fees natural join course ;

| S_ID | FEE_ID | FEE_AMOUNT | C_ID | C_CREDIT |
|------|--------|-----------|------|----------|
| C211004 | F2 | 3000 | 1002 | 3 |
| C211008 | F4 | 3000 | 1004 | 3 |
| C211032 | F10 | 1000 | 1010 | 1 |
| C211035 | F6 | 3000 | 1006 | 3 |
| C211003 | F8 | 2000 | 1008 | 2 |
| C211025 | F1 | 3000 | 1001 | 3 |
| C211007 | F3 | 3000 | 1003 | 3 |
| C211024 | F5 | 1000 | 1005 | 1 |
| C211001 | F7 | 3000 | 1007 | 3 |
| C211021 | F9 | 2000 | 1009 | 2 |

5) Display all the student id and name with their feedback using inner join

Ans:

select student. s_id, s_name , Fd_report

from student

INNER JOIN feedback

ON student. s_id=feedback. s_id;

| S_ID | S_NAME | FD_REPORT |
| --- | --- | --- |
| C211035 | Md Ismail | Accepted |
| C211032 | Rashedul Arefin Ifty | Accepted |
| C211025 | Iftekhar Alam | Accepted |
| C211008 | Rakibul Islam Bijoy | Accepted |
| C211024 | Arif Rahman Sikder | Rejected |
| C211004 | Monjurul Hoque | Accepted |
| C211001 | Anamul Hoque | Accepted |
| C211003 | Sakibul Islam | Accepted |
| C211007 | Samiul Shuvo | Accepted |
| C211021 | Rahimul Islam | Rejected |

# ALL TYPES OF SUB-QUERIES

1) Find the maximum CGPA of student and display his information.

Ans:

select *

from student

where CGPA = (select max(CGPA)from student);

| S_ID | S_NAME | S_DEPT | S_CONTACT | S_EMAIL | CGPA |
| --- | --- | --- | --- | --- | --- |
| C211035 | Md Ismail | CSE | 01690012345 | c211025@ugrad.iiuc.ac.bd | 3.95 |

2) Find the information of student who has minimum CGPA.

Ans:

select *
from student
where CGPA <= (select(min(CGPA))
from student);

| S_ID | S_NAME | S_DEPT | S_CONTACT | S_EMAIL | CGPA |
|------|--------|--------|-----------|---------|------|
| C211024 | Arif Rahman Sikder | CSE | 01830065110 | c211024@ugrad.iiuc.ac.bd | 3.17 |

3) Find the information of students who got CGPA more than '3.70'.

Ans:

SELECT * FROM student
WHERE s_ID IN (SELECT s_ID FROM student WHERE CGPA > 3.70);

| S_ID | S_NAME | S_DEPT | S_CONTACT | S_EMAIL | CGPA |
|------|--------|--------|-----------|---------|------|
| C211004 | Monjurul Hoque | EEE | 01819909444 | c211004@ugrad.iiuc.ac.bd | 3.91 |
| C211008 | Rakibul Islam Bijoy | CSE | 01819909323 | c211002@ugrad.iiuc.ac.bd | 3.81 |
| C211035 | Md Ismail | CSE | 01690012345 | c211025@ugrad.iiuc.ac.bd | 3.95 |
| C211001 | Anamul Hoque | CSE | 01813620787 | c211001@ugrad.iiuc.ac.bd | 3.8 |
| C211003 | Sakibul Islam | CSE | 01819909343 | c211003@ugrad.iiuc.ac.bd | 3.71 |
| C211032 | Rashedul Arefin Ifty | CSE | 01830065120 | c211032@ugrad.iiuc.ac.bd | 3.75 |

4) Display information of the students who paid '3000' for Course

Ans: select *from fees
where fee_id = ANY (select fee_id from fees where
        fee_amount = 3000);

| FEE_ID | FEE_AMOUNT | C_ID |
|--------|-----------|------|
| F3 | 3000 | 1003 |
| F6 | 3000 | 1006 |
| F2 | 3000 | 1002 |
| F1 | 3000 | 1001 |
| F4 | 3000 | 1004 |
| F7 | 3000 | 1007 |

5)Find the information of teachers who lives in chandgaon Chattogram.

Ans:

select * from teacher
where T_address = 'chandgaon,chattogram';

| T_ID | S_ID | T_NAME | T_EMAIL | T_ADDRESS |
|------|------|--------|---------|-----------|
| T0003 | C211024 | Aman Ullah | AmanUllah@gmail.com | chandgaon,chattogram |
| T0002 | C211003 | Chowdhury Hossain | Chowdhuryhossain@gmail.com | chandgaon,chattogram |

# **PL/SQL**

## 1)Display name department and contact of the student whose id is C211007

Ans:

DECLARE

sname student.s_name%type;

sdept student.s_dept%type;

scontact student.s_contact%type;

BEGIN

select s_NAME , s_dept , s_contact into sname

, sdept , scontact

from student

where s_id = 'C211007';

dbms_output.put_line('student information : ');

dbms_output.put_line('student Name : ' || sname);

dbms_output.put_line('student department : ' || sdept);

dbms_output.put_line('student Mobile : ' || scontact);

END;

```
student information :
student Name : Samiul Shuvo
student department : EEE
student Mobile : 01819909555

Statement processed.


0.00 seconds
```

## 2)Display students information who has the lowest CGPA

## Ans:

DECLARE

sname student.s_name%type;

sdept student.s_dept%type;

scontact student.s_contact%type;

Grade student.CGPA%type;

BEGIN

select s_NAME , s_dept , s_contact,CGPA into sname

, sdept , scontact,Grade

from student

where CGPA < 3.20;

dbms_output.put_line('student information : ');

dbms_output.put_line('student Name : ' || sname);

dbms_output.put_line('student department : ' || sdept);

dbms_output.put_line('student Mobile : ' || scontact);

dbms_output.put_line('student CGPA : ' || Grade);

END;

```
student information :
student Name : Arif Rahman Sikder
student department : CSE
student Mobile : 01830065110
student CGPA : 3.17

Statement processed.


0.00 seconds
```

## 3)Display all the information of the course table.

Ans:

DECLARE

cid course.c_id%type;

cname course.c_name%type;

ccredit course.c_credit%type;

CURSOR dia_cur IS

select c_id,c_name,c_credit

from course;

BEGIN

OPEN dia_cur;

LOOP

FETCH dia_cur INTO cid,cname,ccredit;

EXIT WHEN dia_cur%notfound;

dbms_output.put_line('course id: '||cid||' '||'Name: '||cname||' '||' credit:'||ccredit);

END LOOP;

CLOSE dia_cur;

END;

```
course id: 1002 Name: Algorithm    credit:3
course id: 1004 Name: Programming 1    credit:3
course id: 1010 Name: URED    credit:1
course id: 1006 Name: Theory of Computing    credit:3
course id: 1008 Name: Bangla    credit:2
course id: 1001 Name: Database    credit:3
course id: 1003 Name: Data structure    credit:3
course id: 1005 Name: Competitive programming    credit:1
course id: 1007 Name: Digital Logic    credit:3
course id: 1009 Name: Accounting    credit:2

Statement processed.


0.02 seconds
```

## 4)Display the information of Advisor that is defined by user.

Ans:

DECLARE

aid advisor.a_id%type;

aname advisor.a_name%type;

aemail advisor.a_email%type;

acontact advisor.a_contact%type;

BEGIN

select a_id,a_name,a_email,a_contact INTO

aid,aname,aemail,acontact

from advisor

where a_id = (:a_iD);

dbms_output.put_line('advisor ID: '||aid||' '||'advisor name: '||aname||' '||'advisor email: '||aemail||'

'||'advisor contact: '||acontact);

END;

```
advisor ID:  A001 advisor name:  Monjurul islam advisor email:  monjurulislam@gmail.com
advisor contact:  01819909322

Statement processed.


0.00 seconds
```

## 5)Display the information of Teacher  by taking input from user.

Ans:

DECLARE

tid teacher.t_id%type;

tname teacher.t_name%type;

temail teacher.t_email%type;

taddress teacher.t_address%type;

BEGIN

select t_id,t_name,t_email,t_address INTO

tid,tname,temail,taddress

from teacher

where t_id = (:t_iD);

dbms_output.put_line('Teacher ID:     '||tid);

dbms_output.put_line('Teacher name:   '||Tname);

dbms_output.put_line('Teacher email:   '||Temail);

dbms_output.put_line('Teacher address: '||taddress);

END;

```
Teacher ID:      T0005
Teacher name:    Shaiyan Ameen
Teacher email:   shaiyanameen@gmail.com
Teacher address: muradpur,chattogram

Statement processed.


0.02 seconds
```

# THE END