

Final Project

Introduction to Database

Section: F

Group 05

Project Title: School Management System

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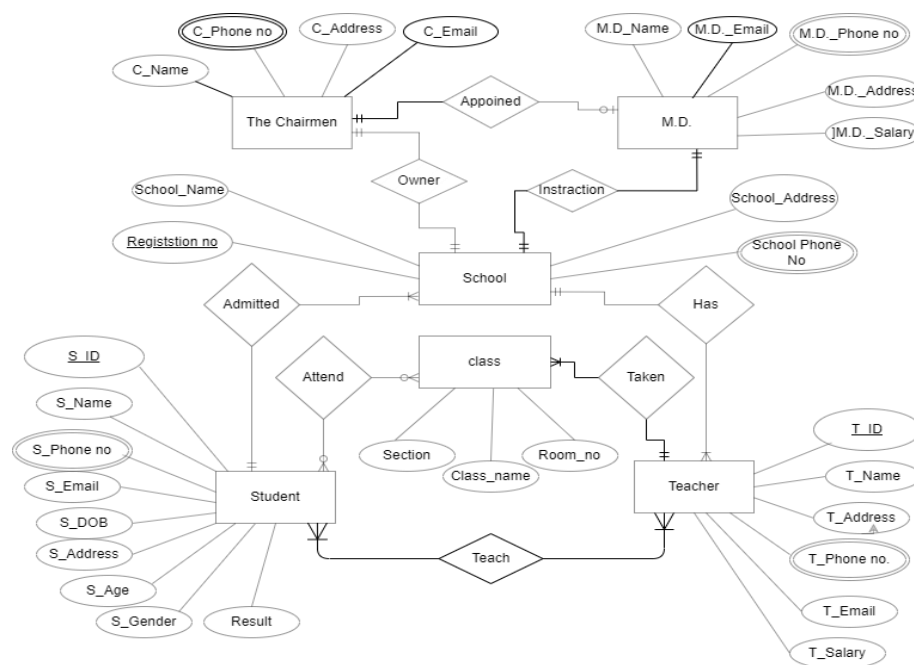
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CASE STUDY:

The chairman of ABCD school wishes to build a database to store and manage information about the school and persons related to it. The chairman is the owner of this school. The chairman's name email, phone and address will be stored in the database. The chairman has appointed a M.D. to give various directions to the school. The name and contact details (address, phone, email etc.) of the M.D. along with his salary will be stored. He will have a unique id no. The M.D. gives instruction the school. The information about school contact details (address, phone, etc.) along with the unique registration number of the school will be recorded in the database. Teachers are the employee of the school. The school has teachers for teaching. They will have unique id no, name, address, phone no., email along with their salary will be stored. They are teaching the student at the school. Various information about student such as unique ID, name, contact details (address, phone no., email), age, date of birth, gender will be stored. Records of student result also stored in database. A student can attend class. Every class must have a student associated with it via attendance. Class has sections, name, room no. The existence of section is totally dependent on class. Class is taken by teacher. Now draw an ER diagram according to the mentioned scenario.

ER Diagram:



School Management System ER diagram

Appointed:

(C_Email, C_Name, C_Address, C_Phone, MD_Email, MD_Name, MD_Address, MD_Phone, MD_Salary)

1 NF: C_Phone and MD_phone multivalued attributed

2 NF: C_Email, C_Name, C_Address, C_Phone, MD_Email

MD_Email, MD_Name, MD_Address, MD_Phone, MD_Salary

3 NF: No Trangetive Depentency

C_Email, C_Name, C_Address, C_Phone, MD_Email

MD_Email, MD_Name, MD_Address, MD_Phone, MD_Salary

TABLE:

C_Email, C_Name, C_Address, C_Phone, MD_Email

MD_Email, MD_Name, MD_Address, MD_Phone, MD_Salary

Owner

(C_Email, C_Name, C_Address, C_Phone, Registration_No, School_Name, School_Address, School_Phone, School_Email)

1 NF: C_Phone and School_Phone Multivalued Attributed

2 NF: C_Email, C_Name, C_Address, C_Phone

Registration_No, School_Name, School_Address, School_Phone, School_Email, C_Email

3 NF: No Trangetive Depentency

C_Email, C_Name, C_Address, C_Phone

Registration_No, School_Name, School_Address, School_Phone, School_Email, C_Email

Table:

C_Email, C_Name, C_Address, C_Phone

Registration_No, School_Name, School_Address, School_Phone, School_Email, C_Email

Admitted

(S_ID, S_Name, S_Phone, S_Email, S_DOB, S_Address, S_Age, S_Gender, Result, Registration_No, School_Name, School_Address, School_Phone, School_Email)

1 NF: S_Phone and School_Phone Multivalued Attributed

2 NF: S_ID, S_Name, S_Phone, S_Email, S_DOB, S_Address, S_Age, S_Gender, Result, Registration_No
Registration_No, School_Name, School_Address, School_Phone, School_Email

3 NF: S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, Registration No, S_DOBA
S_DOBA, S_DOB, S_Age
Registration_No, School Name, School_Address, School_Phone, School_Email

Table:

S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, Registration_No, S_DOBA
S_DOBA, S_DOB, S_Age
Registration_No, School Name, School_Address, School_Phone, School_Email

Attend

(S_ID, S_Name, S_Phone, S_Email, S_DOB, S_Age, S_Address, S_Gender, Result, Class_ID, Section, Class_Name, Room_NO)

1 NF: S_Phone Multivalued Attribute.

2 NF: S_ID, S_Name, S_Phone, S_Email, S_DOB, S_Age, S_Address, S_Gender, Result
Class_ID, Section, Class- Name, Room-No
CS_ID, S_ID, Class-ID

3 NF: S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, S_DOBA
S_DOBA, S_DOB, S_Age
Class_ID, Section, Class_Name, Room_No
CS_ID, S_ID, Class_ID

Table:

S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, S_DOBA
S_DOBA, S_DOB, S_Age
Class_ID, Section, Class_Name, Room_No
CS_ID, S_ID, Class_ID

Taken

(Class_ID, Class_Name, Section, Room_No, T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date)

1NF: T_Phone Multivalued Attributed

2NF: Class_ID, Class_Name, Section, Room_No, T_ID

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date

3NF: No Trangetive Depentency

Class_ID, Class_Name, Section, Room_No, T_ID

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date

Table:

Class_ID, Class_Name, Section, Room_No, T_ID

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date

Has

(T_ID, T_Name, T_Address, T_Phone, T_Email, T_salary, Joining_date, Registration_No, School_Name, School_Address, School_Phone, School_Email)

1NF: T_Phone and School_Phone Multivalued Attributed

2NF: T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date, Registstion_No

Registstion_No, School_Name, School_Address, School_Phone, School_Email

3NF: No Trangetive Depentency

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date, Registstion_No

Registstion_No, School_Name, School_Address, School_Phone, School_Email

Table:

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date, Registstion_No

Registstion_No, School_Name, School_Address, School_Phone, School_Email

Teach

(S_ID, S_Name, S_Phone, S_Email, S_DOB, S_Age, S_Address, S_Gender, Result, T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date)

1 NF: S_Phone and T_Phone Multivalued Attributed

2 NF: S_ID, S_Name, S_Phone, S_Email, S_DOB, S_Age, S_Address, S_Gender, Result

T_ID, T_Name, T_Address, T_Phone, T- Email, T_ salary, Joining_date

ST_ID, S_ID, T_ID

3 NF: S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, S_DOBA

S_DOBA, S-DOB, S-Age

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date

ST_ID, S_ID, T_ID

Table:

S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, S_DOBA

S_DOBA, S-DOB, S-Age

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date

ST_ID, S_ID, T_ID

Instruction

(MD_Email, MD_Name, MD_Address, MD_Phone, MD_Salary, Registstion_No, School_Name, School_Address, School_Phone, School_Email)

1NF: MD_Phone and School_Phone Multivalued Attributed

2NF: MD_Email, MD_Name, MD_Phone, MD_Address, MD_Salary

Registstion_No, School_Name, School_Address, School_Phone, School_Email, MD_Email

3NF: No Trangetive Depentency

MD_Email, MD_Name, MD_Phone, MD_Address, MD_Salary

Registstion_No, School_Name, School_Address, School_Phone, School_Email, MD_Email

Table:

MD_Email, MD_Name, MD_Phone, MD_Address, MD_Salary

Registstion_No, School_Name, School_Address, School_Phone, School_Email, MD_Emai

Total Table:

C_Email, C_Name, C_Address, C_Phone, MD_Email

MD_Email, MD_Name, MD_Address, MD_Phone, MD_Salary

C_Email, C_Name, C_Address, C_Phone

Registration_No, School_Name, School_Address, School_Phone, School_Email, C_Email

S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, Registration_No, S_DOBA

S_DOBA, S_DOB, S_Age

Registration_No, School Name, School_Address, School_Phone, School_Email

S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, S_DOBA

S_DOBA, S_DOB, S_Age

Class_ID, Section, Class_Name, Room_No

CS_ID, S_ID, Class_ID

Class_ID, Class_Name, Section, Room_No, T_ID

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date, Registstion_No

Registstion_No, School_Name, School_Address, School_Phone

S_ID, S_Name, S_Phone, S_Email, S_Address, S_Gender, Result, S_DOBA

S_DOBA, S-DOB, S-Age

T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary, Joining_date

ST_ID, S_ID, T_ID

MD_Email, MD_Name, MD_Phone, MD_Address, MD_Salary

Registstion_No, School_Name, School_Address, School_Phone, MD_Email

Results Explain Describe Saved SQL History									
Object Type TABLE Object CHAIRMANINFO									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CHAIRMANINFO	C_EMAIL	Varchar2	20	-	-	1	-	-	-
	C_NAME	Varchar2	50	-	-	-	✓	-	-
	C_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	C_PHONE	Number	-	15	0	-	✓	-	-
	MD_EMAIL	Varchar2	20	-	-	-	✓	-	-
									1 - 5


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Create Table MDInfo (MD_Email Varchar2(20) constraint MDmail_MDInfo_pk primary
key,MD_Name Varchar(50),MD_Address Varchar(50),MD_Phone Varchar(50),MD_Salary
Number(10))
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MDINFO	MD_EMAIL	Varchar2	20	-	-	1	-	-	-
	MD_NAME	Varchar2	50	-	-	-	✓	-	-
	MD_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	MD_PHONE	Varchar2	50	-	-	-	✓	-	-
	MD_SALARY	Number	-	10	0	-	✓	-	-

1 - 5

Create Table SchoolInfo (Registration_No Number (20) constraint regino_SchoolInfo_pk primary key, School_Name Varchar2(50),School_Address Varchar(50),School_Phone Number(15),School_Email Varchar(50),C_Email Varchar(20) constraint Cmail_SchoolInfo_fk references ChairmanInfo(C_Email))

Results	Explain	Describe	Saved SQL	History
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Object Type	TABLE	Object	SCHOOLINFO
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Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SCHOOLINFO	REGISTRATION_NO	Number	-	20	0	1	-	-	-
	SCHOOL_NAME	Varchar2	50	-	-	-	✓	-	-
	SCHOOL_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	SCHOOL_PHONE	Number	-	15	0	-	✓	-	-
	SCHOOL_EMAIL	Varchar2	50	-	-	-	✓	-	-
	C_EMAIL	Varchar2	20	-	-	-	✓	-	-

Create Table Students (S_DOB Varchar2(15) constraint DOBA_Students_pk primary key,S_DOB date,S Age Number(5))

Results Explain Describe Saved SQL History

Object Type TABLE Object STUDENTS

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STUDENTS	S_DOB	Varchar2	15	-	-	1	-	-	-
	S_DOB	Date	7	-	-	-	✓	-	-
	S_AGE	Number	-	5	0	-	✓	-	-

1 - 3

Create Table StudentInfo (S_ID Number (10) constraint SID_StudentInfo_pk primary key,
S_Name Varchar2(50), S_Phone Number (15), S_Email Varchar2(15), S_Address Varchar(50),
S_Gender Varchar(15), Result Number(3,2), Registration_No Number(15) constraint
regino_StudentInfo_fk references SchoolInfo(Registration_No), S_Doba Varchar(15) constraint
SDoba_StudentInfo_fk references Students(S_Doba))

Results	Explain	Describe	Saved SQL	History
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Object Type	TABLE	Object	STUDENTINFO
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Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STUDENTINFO	S_ID	Number	-	10	0	1	-	-	-
	S_NAME	Varchar2	50	-	-	-	✓	-	-
	S_PHONE	Number	-	15	0	-	✓	-	-
	S_EMAIL	Varchar2	15	-	-	-	✓	-	-
	S_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	S_GENDER	Varchar2	15	-	-	-	✓	-	-
	RESULT	Number	-	5	0	-	✓	-	-
	REGISTRATION_NO	Number	-	15	0	-	✓	-	-
	S_DOBA	Varchar2	15	-	-	-	✓	-	-

1 - 9

Create Table Class (CS_ID Number (15) constraint CSid_Class_pk primary key, S_ID Number (15) constraint SID_Class_fk references StudentInfo(S_ID), Class_ID Number(15))

Results	Explain	Describe	Saved SQL	History
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Object Type	TABLE	Object	CLASS
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Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CLASS	CS_ID	Number	-	15	0	1	-	-	-
	S_ID	Number	-	15	0	-	✓	-	-
	CLASS_ID	Number	-	15	0	-	✓	-	-

1 - 3

Create Table ClassInfo(Room_No Number(10), constraint Room_ClassInfo_pk primary key, Class_Name Varchar(50), Section Varchar(5), Class_ID Number(15), T_ID Number(15)constraint TID_ClassInfo fk references TeacherInfo(T_ID))

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CLASSINFO	CLASS_ID	Number	-	15	0	1	-	-	-
	CLASS_NAME	Varchar2	50	-	-	-	✓	-	-
	SECTION	Varchar2	5	-	-	-	✓	-	-
	ROOM_NO	Number	-	10	0	-	✓	-	-
	T_ID	Number	-	15	0	-	✓	-	-

1 - 5

Create Table TeachesInfo(T_ID Number(15) constraint Tid_TeachersInfo_pk primary key, T_Name Varchar(50), T_Address Varchar(50),T_Phone Number(15),T_Email Varchar(50),T_Salary Number(10),Joining_date Date, Registstion_No Number(15))

Results Explain Describe Saved SQL History

Object Type TABLE Object TEACHERINFO

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TEACHERINFO	T_ID	Number	-	15	0	1	-	-	-
	T_NAME	Varchar2	50	-	-	-	✓	-	-
	T_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	T_PHONE	Number	-	15	0	-	✓	-	-
	T_EMAIL	Varchar2	15	-	-	-	✓	-	-
	T_SALARY	Number	-	10	0	-	✓	-	-
	JOINING_DATE	Date	7	-	-	-	✓	-	-
	REGISTSTION_NO	Number	-	15	0	-	✓	-	-
1 - 8									

Create Table Teach (ST_ID Number (15) constraint STid_Teach_pk primary key, S_ID Number(15) constraint SID_Teach_fk references StudentInfo(S_ID), T_ID Number(15) constraint TID_Teach_fk references TeacherInfo(T_ID))

Results Explain Describe Saved SQL History

Object Type TABLE Object TEACH

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TEACH	ST_ID	Number	-	15	0	1	-	-	-
	S_ID	Number	-	15	0	-	✓	-	-
	T_ID	Number	-	15	0	-	✓	-	-

1 - 3

Create Table Instruction (Registstion_No Number (15) constraint regino_Instruction_pk primary key, School_Name varchar2(100), School_Address Varchar(50), School_Phone Number(15), MD_Email Varchar(15)constraint MDEmail_Instruction_fk references MDInfo(MD_Email))

Results Explain Describe Saved SQL History

Object Type TABLE Object INSTRUCTION

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
INSTRUCTION	REGISTRATION_NO	Number	-	15	0	1	-	-	-
	SCHOOL_NAME	Varchar2	100	-	-	-	✓	-	-
	SCHOOL_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	SCHOOL_PHONE	Number	-	15	0	-	✓	-	-
	MD_EMAIL	Varchar2	15	-	-	-	✓	-	-

1 - 5

.....X.....X.....X.....

DATA INSERT

ChairmanInfo Table

Insert into ChairmanInfo(C_Email,C_Name,C_Address,C_Phone,MD_Email) Values

('chairman@gmail.com','MD Hossain Mahmud','Dhaka',01700112233, 'mizanur@gmail.com')

Results	Explain	Describe	Saved SQL	History
C_EMAIL	C_NAME	C_ADDRESS	C_PHONE	MD_EMAIL
chairman@gmail.com	MD Hossain Mahmud	Dhaka	1700112233	mizanur@gmail.com
1 rows returned in 0.35 seconds CSV Export				

MDInfo Table

Insert into MDInfo(MD_Email,MD_Name,MD_Address,MD_Phone,MD_Salary)Values

('mizanur@gmail.com','Md Mizanur Islam','Narayongonj','01711223344','120000')

Results	Explain	Describe	Saved SQL	History
MD_EMAIL	MD_NAME	MD_ADDRESS	MD_PHONE	MD_SALARY
mizanur@gmail.com	Md Mizanur Islam	Narayongonj	01711223344	120000
1 rows returned in 0.06 seconds CSV Export				

SchoolInfo Table

Insert into SchoolInfo

(REGISTRATION_NO,School_Name,School_Address,School_Email,School_Phone,

C_Email) Values

('192837','Md Hossain Mahmud High School','Dhaka',
'schoolinfo@gmail.edu','01710020055','chairman@gmail.com')

Results

Explain

Describe

Saved SQL

History

REGISTRATION_NO	SCHOOL_NAME	SCHOOL_ADDRESS	SCHOOL_PHONE	SCHOOL_EMAIL	C_EMAIL
192837	Md Hossain Mahmud High School	Dhaka	1710020055	schoolinfo@gmail.edu	chairman@gmail.com

1 rows returned in 0.05 seconds

[CSV Export](#)

Students Table

Insert into Students(S_DOBA,S_DOB,S_Age)Values('21-5-1999','21 MAY 1999','23')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('15-6-1999','15 JUN 1999','23')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('20-5-2000','20 MAY 2000','22')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('10-5-1999','10 MAY 1999','23')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('01-3-2000','01 MAR 2000','22')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('21-5-2001','21 MAY 2001','21')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('18-4-1999','18 APR 1999','23')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('11-3-2000','11 MAR 2000','22')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('20-6-2001','20 JUN 2001','21')

Insert into Students(S_DOBA,S_DOB,S_Age)Values('17-7-1999','17 JUL 1999','23')

Results	Explain	Describe	Saved SQL	History
S_DOBA	S_DOB	S_AGE		
21-5-1999	21-MAY-99	23		
15-6-1999	15-JUN-99	23		
20-5-2000	20-MAY-00	22		
10-5-1999	10-MAY-99	23		
01-3-2000	01-MAR-00	22		
21-5-2001	21-MAY-01	21		
18-4-1999	18-APR-99	23		
11-3-2000	11-MAR-00	22		
20-6-2001	20-JUN-01	21		
17-7-1999	17-JUL-99	23		

10 rows returned in 0.09 seconds [CSV Export](#)

StudentInfo Table

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_DOBA) Values
('1111','Md Minhajul Islam','01000000001','minhaj@gmail.com','Dhaka','Male','4.50','192837',
'21-5-1999')

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_DOBA) Values
('1112','Towfiq Islam','01000000002','towfiq@gmail.com','Dhaka','Male','5.00','192837','15-6-1999')

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_Doba) Values
('1113','Khadiza Akter','01000000003','khadiza@gmail.com','Madaripur','Female','5.00','192837',
'20-5-2000')

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_Doba) Values
('1114','Shisir Islam','01000000004','shisir@gmail.com','Dhaka','Male','5.00','192837','10-5-1999')

Insert into Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_Doba) Values
('1115','Sakib Islam','01000000005','sakib@gmail.com','Narayongonj','Male','4.83','192837','01-3-2000')

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_Doba) Values
('1116','Rivnat Mimma','01000000006','rivnat@gmail.com','Narsingdhi','Female','4.33','192837',
'21-5-2001')

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_Doba) Values
('1117','Mehedi Hasan','01000000007','mehedi@gmail.com','Dhaka','Male','3.93','192837','18-4-1999')

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_Doba) Values
('1118','Tanvir Islam','01000000008','tanvir@gmail.com','Barisal','Male','3.00','192837','11-3-2000')

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_Doba) Values
('1119','Nila Akter','01000000009','nila@gmail.com','Dhaka','Female','4.00','192837','20-6-2001')

Insert into_Studentinfo

(S_ID,S_Name,S_Phone,S_Email,S_Address,S_Gender,CGPA,REGISTRATION_NO,S_DOBA) Values

('1120','Mehjabin Akter','01000000010','mehjabin@gmail.com','Narsingdhi','Female','5.00','192837','17-7-1999')

Results

Explain

Describe

Saved SQL

History

S_ID	S_NAME	S_PHONE	S_EMAIL	S_ADDRESS	S_GENDER	CGPA	REGISTRATION_NO	S_DOBA
1111	Md Minhajul Islam	1000000001	minhaj@gmail.com	Dhaka	Male	4.5	192837	21-5-1999
1112	Towfiq Islam	1000000002	towfiq@gmail.com	Dhaka	Male	5	192837	15-6-1999
1113	Khadiza Akter	1000000003	khadiza@gmail.com	Madaripur	Female	5	192837	20-5-2000
1114	Shisir Islam	1000000004	shisir@gmail.com	Dhaka	Male	5	192837	10-5-1999
1115	Sakib Islam	1000000005	sakib@gmail.com	Narayongonj	Male	4.83	192837	01-3-2000
1116	Rivnat Mimma	1000000006	rivnat@gmail.com	Narsingdhi	Female	4.33	192837	21-5-2001
1117	Mehedi Hasan	1000000007	mehedi@gmail.com	Dhaka	Male	3.93	192837	18-4-1999
1118	Tanvir Islam	1000000008	tanvir@gmail.com	Barisal	Male	3	192837	11-3-2000
1119	Nila Akter	1000000009	nila@gmail.com	Dhaka	Female	4	192837	20-6-2001
1120	Mehjabin Akter	1000000010	mehjabin@gmail.com	Narsingdhi	Female	5	192837	17-7-1999

10 rows returned in 0.17 seconds

CSV Export

Class Table

Insert into Class(CS_ID,S_ID,Class_ID)Values('112233','1111','111')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112234','1112','112')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112235','1113','113')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112236','1114','111')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112237','1115','112')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112238','1116','113')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112239','1117','111')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112240','1118','112')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112241','1119','113')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112242','1120','111')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112243','1121','112')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112244','1122','113')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112245','1123','111')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112246','1124','112')

Insert into Class(CS_ID,S_ID,Class_ID)Values('112247','1125','113')

Results	Explain	Describe	Saved SQL	History
ST_ID	S_ID	T_ID		
121212	1111	11002200		
121213	1112	11002200		
121214	1113	11002200		
121215	1114	11003300		
121216	1115	11003300		
121217	1116	11003300		
121218	1117	11004400		
121219	1118	11004400		

8 rows returned in 0.08 seconds [CSV Export](#)

ClassInfo Table

Insert into ClassInfo(Room_No,Class_Name,Section,Class_ID,T_ID)Values('111','Six','A','111','11002200')

Insert into ClassInfo(Room_No,Class_Name,Section,Class_ID,T_ID)Values('112','Six','B','112','11004400')

Insert into ClassInfo(Room_No,Class_Name,Section,Class_ID,T_ID)Values('113','Six','C','113','11002200')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('114','Seven','A','111','11003300')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('115','Seven','B','112','11003300')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('116','Seven','C','113','11002200')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('117','Eight','A','111','11004400')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('118','Eight','B','112','11002200')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('119','Eight','C','113','11002200')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('201','Nine','A','111','11004400')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('202','Nine','B','112','11004400')

Insert into ClassInfo
(Room_No,Class_Name,Section,Class_ID,T_ID)Values('203','Nine','C','113','11004400')

Insert into ClassInfo

(Room_No,Class_Name,Section,Class_ID,T_ID)Values('204','Ten','A','111','11004400')

Insert into ClassInfo

(Room_No,Class_Name,Section,Class_ID,T_ID)Values('205','Ten','B','112','11004400')

Insert into ClassInfo

(Room_No,Class_Name,Section,Class_ID,T_ID)Values('206','Ten','C','113','11004400')

Results	Explain	Describe	Saved SQL	History
ROOM_NO	CLASS_NAME	SECTION	CLASS_ID	T_ID
111	Six	A	111	11002200
112	Six	B	112	11004400
113	Six	C	113	11002200
114	Seven	A	111	11003300
115	Seven	B	112	11003300
116	Seven	C	113	11002200
117	Eight	A	111	11004400
118	Eight	B	112	11002200
119	Eight	C	113	11002200
201	Nine	A	111	11004400
202	Nine	B	112	11004400
203	Nine	C	113	11004400
204	Ten	A	111	11004400
205	Ten	B	112	11004400
206	Ten	C	113	11004400

15 rows returned in 0.05 seconds [CSV Export](#)

Teacher INFO Table

Insert into Teacher_Info

(T_ID,T_Name,T_Address,T_Phone,T_Email,T_Salary,Joining_Date,REGISTRATION_NO)Values
('11002200','Md Mustafizur Rahman','Dhaka','01510203040', 'mustafiz@gmail.com','30000',
'18_MAY_20','192837')

Insert into Teacher_Info

(T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary,Joining_Date,REGISTRATION_NO)Values
('11003300','Mrs. salma Akter','Dhaka','01510203041', 'salma@gmail.com','30000',
'12_JAN_19','192837')

Insert into Teacher_Info

(T_ID, T_Name, T_Address, T_Phone, T_Email, T_Salary,Joining_Date,REGISTRATION_NO)Values
('11004400','Md Monir Hossain','Dhaka','01510203042', 'monir@gmail.com','35000',
'25_APR_18','192837')

Results Explain Describe Saved SQL History

T_ID	T_NAME	T_ADDRESS	T_PHONE	T_EMAIL	T_SALARY	JOINING_DATE	REGISTRATION_NO
11002200	Md Mustafizur Rahman	Dhaka	1510203040	mustafiz@gmail.com	30000	18-MAY-20	192637
11003300	Mrs. salma Akter	Dhaka	1510203041	salma@gmail.com	30000	12-JAN-19	192637
11004400	Md Monir Hossain	Dhaka	1510203042	monir@gmail.com	35000	25-APR-18	192637

3 rows returned in 0.08 seconds [CSV Export](#)

Teach Table

Insert into Teach(ST_ID,S_ID,T_ID)Values('121212','1111','11002200')

Insert into Teach(ST_ID,S_ID,T_ID)Values('121213','1112','11002200')

Insert into Teach(ST_ID,S_ID,T_ID)Values('121214','1113','11002200')

Insert into Teach(ST_ID,S_ID,T_ID)Values('121215','1114','11003300')

Insert into Teach(ST_ID,S_ID,T_ID)Values('121216','1115','11003300')

Insert into Teach(ST_ID,S_ID,T_ID)Values('121217','1116','11003300')

Insert into Teach(ST_ID,S_ID,T_ID)Values('121218','1117','11004400')

Insert into Teach(ST_ID,S_ID,T_ID)Values('121219','1118','11004400')

Insert into Teach(ST_ID,S_ID,T_ID)Values('121220','1119','11004400')

Results Explain Describe Saved SQL History

CS_ID	S_ID	CLASS_ID
112233	1111	111
112234	1112	112
112235	1113	113
112236	1114	111
112237	1115	112
112238	1116	113
112239	1117	111
112240	1118	112
112241	1119	113
112242	1120	111

10 rows returned in 0.03 seconds

[CSV Export](#)

Instruction Table

Insert into Instruction

(REGISTSTION_NO,School_Name,School_Address,School_Phone,MD_Email)Values

('192837','MD Hossain Mahmud','Dhaka','01710020055', 'mizanur@gmail.com')

Results	Explain	Describe	Saved SQL	History
REGISTSTION_NO	SCHOOL_NAME	SCHOOL_ADDRESS	SCHOOL_PHONE	MD_EMAIL
192837	MD Hossain Mahmud	Dhaka	1710020055	mizanur@gmail.com
1 rows returned in 0.00 seconds CSV Export				

Query

SubQuery:

=>Find out NAME AND SALARY WHOSE SALARY IS THE LOWEST SALARY

select T_Name,T_Salary from Teacher_Info where T_Salary>(select min(T_Salary) from Teacher_Info)

Results	Explain	Describe	Saved SQL	History				
<table><thead><tr><th>T_NAME</th><th>T_SALARY</th></tr></thead><tbody><tr><td>Md Monir Hossain</td><td>35000</td></tr></tbody></table>					T_NAME	T_SALARY	Md Monir Hossain	35000
T_NAME	T_SALARY							
Md Monir Hossain	35000							
1 rows returned in 0.58 seconds			CSV Export					

=>Find out NAME, ID AND CGPA WHOSE CGPA IS THE LOWEST CGPA

select S_Name,S_ID,CGPA from StudentInfo where CGPA>(select min(CGPA) from StudentInfo)

Results	Explain	Describe	Saved SQL	History
S_NAME	S_ID	CGPA		
Md Minhajul Islam	1111	4.5		
Towfiq Islam	1112	5		
Khadiza Akter	1113	5		
Shisir Islam	1114	5		
Sakib Islam	1115	4.83		
Rivnat Mimma	1116	4.33		
Mehedi Hasan	1117	3.93		
Nila Akter	1119	4		
Mehjabin Akter	1120	5		
9 rows returned in 0.31 seconds				
			CSV Export	

=>Find out NAME, T_ID, SALARY WHOSE SALARY IS GREATER than Maximum SALARY

```
select T_Name,T_ID,T_Salary from Teacher_Info where T_Salary<(select max(T_Salary) from Teacher_Info)
```

Results Explain Describe Saved SQL History

T_NAME	T_ID	T_SALARY
Md Mustafizur Rahman	11002200	30000
Mrs. salma Akter	11003300	30000

2 rows returned in 0.05 seconds

[CSV Export](#)

=>Display the Name,salary and T_ID for all Teachers who earn more than the average salary

```
SELECT T_name,T_salary,T_ID from Teacher_Info where T_salary >( select avg(T_salary) from Teacher_Info)
```

Results	Explain	Describe	Saved SQL	History
T_NAME	T_SALARY	T_ID		
Md Monir Hossain	35000	11004400		
1 rows returned in 0.03 seconds			CSV Export	

=>Display the name and joining date for all teachers who was join after T_ID 11003300

```
SELECT T_name, Joining_Date from Teacher_Info where Joining_date >( select Joining_Date from Teacher_Info where T_ID=11003300)
```

Results Explain Describe Saved SQL History

T_NAME	JOINING_DATE
Md Mustafizur Rahman	18-MAY-20

1 rows returned in 0.07 seconds

[CSV Export](#)

Joining:

=>Find out Chairman Name,Email,School Name from SchoolInfo Table

```
select C.C_Name,C.C_Email,S.School_Name from ChairmanInfo C,SchoolInfo S where S.C_Email=C.C_Email
```

Results Explain Describe Saved SQL History

C_NAME	C_EMAIL	SCHOOL_NAME
MD Hossain Mahmud	chairman@gmail.com	Md Hossain Mahmud High School

1 rows returned in 0.39 seconds

[CSV Export](#)

=>Find out MD name,email,Chairman Phone from ChairmanInfo Table

```
select M.MD_Name,M.MD_Email,C.C_phone from MDInfo M,ChairmanInfo C where  
C.MD_Email=M.MD_Email
```

Results Explain Describe Saved SQL History

MD_NAME	MD_EMAIL	C_PHONE
Md Mizanur Islam	mizanur@gmail.com	1700112233

1 rows returned in 0.16 seconds

[CSV Export](#)

=>Find out Student Name, DOBA, Student Date of Birth from Students Table

```
select S.S_Name, d.S_DOB from StudentInfo S, Students d where S.S_DOB=d.S_DOB
```

S_NAME	S_DOB
Md Minhajul Islam	21-MAY-99
Towfiq Islam	15-JUN-99
Khadiza Akter	20-MAY-00
Shisir Islam	10-MAY-99
Sakib Islam	01-MAR-00
Rivnat Mimma	21-MAY-01
Mehedi Hasan	18-APR-99
Tanvir Islam	11-MAR-00
Nila Akter	20-JUN-01
Mehjabin Akter	17-JUL-99
10 rows returned in 0.06 seconds	
CSV Export	

=>Find out Student ID,Name and Class ID from Class Table

```
select S.S_ID,S.S_Name,C.Class_ID from StudentInfo S,Class C where S.S_ID=C.S_ID
```

Results Explain Describe Saved SQL History

S_ID	S_NAME	CLASS_ID
1111	Md Minhajul Islam	111
1112	Towfiq Islam	112
1113	Khadiza Akter	113
1114	Shisir Islam	111
1115	Sakib Islam	112
1116	Rivnat Mimma	113
1117	Mehedi Hasan	111
1118	Tanvir Islam	112
1119	Nila Akter	113
1120	Mehjabin Akter	111

10 rows returned in 0.19 seconds

CSV Export

=>Find out Student ID,Teacher ID,Class Name from ClassInfo Table

```
select T.S_ID,T.T_ID,C.Class_Name from Teach T,ClassInfo C where T.T_ID=C.T_ID
```

S_ID	T_ID	CLASS_NAME
1113	11002200	Six
1112	11002200	Six
1111	11002200	Six
1118	11004400	Six
1117	11004400	Six
1113	11002200	Six
1112	11002200	Six
1111	11002200	Six
1116	11003300	Seven
1115	11003300	Seven
1114	11003300	Seven
1116	11003300	Seven
1115	11003300	Seven
1114	11003300	Seven
1113	11002200	Seven
1112	11002200	Seven
1111	11002200	Seven
1118	11004400	Eight
1117	11004400	Eight
1113	11002200	Eight
1112	11002200	Eight
1111	11002200	Eight
1113	11002200	Eight
1112	11002200	Eight
1111	11002200	Eight
1118	11004400	Nine
1117	11004400	Nine
1118	11004400	Nine
1117	11004400	Nine
1118	11004400	Nine
1117	11004400	Nine
1118	11004400	Ten
1117	11004400	Ten
1118	11004400	Ten
1117	11004400	Ten
1118	11004400	Ten
1117	11004400	Ten

37 rows returned in 0.15 seconds

[CSV Export](#)

Single Row Function:

```
select S_ID, Upper(S_Name), S_Address from StudentInfo
```

S_ID	UPPER(S_NAME)	S_ADDRESS
1111	MD MINHAJUL ISLAM	Dhaka
1112	TOWFIQ ISLAM	Dhaka
1113	KHADIZA AKTER	Madaripur
1114	SHISIR ISLAM	Dhaka
1115	SAKIB ISLAM	Narayongonj
1116	RIVNAT MIMMA	Narsingdhi
1117	MEHEDI HASAN	Dhaka
1118	TANVIR ISLAM	Barisal
1119	NILA AKTER	Dhaka
1120	MEHJABIN AKTER	Narsingdhi

10 rows returned in 0.05 seconds

[CSV Export](#)

```
select T_Name,(SYSDATE-JOINING_DATE)/7 WEEKS FROM Teacher_Info
```

T_NAME	WEEKS
Md Mustafizur Rahman	118.354393187830687830687830687830687831
Mrs. salma Akter	188.640107473544973544973544973544973545
Md Monir Hossain	226.068678902116402116402116402116402116

3 rows returned in 0.05 seconds

[CSV Export](#)

select S_DOB, MONTHS_BETWEEN('21-MAY-99','21-MAY-22') FROM STUDENTS

Results	Explain	Describe	Saved SQL	History
S_DOB	MONTHS_BETWEEN('21-MAY-99','21-MAY-22')			
21-MAY-99	-276			
15-JUN-99	-276			
20-MAY-00	-276			
10-MAY-99	-276			
01-MAR-00	-276			
21-MAY-01	-276			
18-APR-99	-276			
11-MAR-00	-276			
20-JUN-01	-276			
17-JUL-99	-276			

10 rows returned in 0.06 seconds [CSV Export](#)

Group Function:

SELECT COUNT(S_ID), S_Address FROM StudentInfo GROUP BY S_Address

Results	Explain	Describe	Saved SQL	History
COUNT(S_ID)	S_ADDRESS			
1	Madanipur			
2	Narsingdhi			
5	Dhaka			
1	Barisal			
1	Narayongonj			

5 rows returned in 0.00 seconds [CSV Export](#)

SELECT COUNT (class_name), class_id FROM classinfom GROUP BY class_id

Results	Explain	Describe	Saved SQL	History
COUNT(CLASS_NAME)	CLASS_ID			
5	113			
5	112			
5	111			

3 rows returned in 0.02 seconds [CSV Export](#)

SELECT COUNT(t_id), class_name FROM classinfom GROUP BY class_name

Results	Explain	Describe	Saved SQL	History
COUNT(T_ID)	CLASS_NAME			
3	Nine			
3	Six			
3	Eight			
3	Ten			
3	Seven			

5 rows returned in 0.08 seconds [CSV Export](#)

View:

```
CREATE VIEW STU_View AS
```

```
SELECT S.S_ID, S.S_NAME, S.CGPA, S_age, S_DOB
```

```
FROM Studentinfo S, Students D
```

```
WHERE S.S_Doba=D.S_Doba
```

Results	Explain	Describe	Saved SQL	History
S_ID	S_NAME	CGPA	S_AGE	S_DOB
1111	Md Minhajul Islam	4.5	23	21-MAY-99
1112	Towfiq Islam	5	23	15-JUN-99
1113	Khadiza Akter	5	22	20-MAY-00
1114	Shisir Islam	5	23	10-MAY-99
1115	Sakib Islam	4.83	22	01-MAR-00
1116	Rivnat Mimma	4.33	21	21-MAY-01
1117	Mehedi Hasan	3.93	23	18-APR-99
1118	Tanvir Islam	3	22	11-MAR-00
1119	Nila Akter	4	21	20-JUN-01
1120	Mehjabin Akter	5	23	17-JUL-99

10 rows returned in 0.58 seconds [CSV Export](#)

Thank You