Title: Coaching Center Management System

Group: 5

| Name	ID
Md. Mehedy Hasan Siam	19-41075-2
Md. Asibul Hasan	19-41238-2
Md. Asifur Rahman	20-41898-1
Ashikur Rahaman Joy	19-41174-2

Content:

1)Case Study
2)ER diagram
3)Normalization
4)Table creation with constraints
5)Data insertion (10 data per table)
6)Query writing on the tables (12 query)

        1. Subquery   (3)
        2. Joining (3)
        3. Group function (3)
        4. single row function (1)
        5. view (1)
        6. Sequence (1)

Case Study:

In a coaching center management system.Batch co-ordinate informs both stsudents and teachers.Teacher teaches students.Teaching time should be schedule.Students are justify/examine by examination.Exam also added to the sehedule.Student result should record by promotion and demotion.

ER-Diagram:
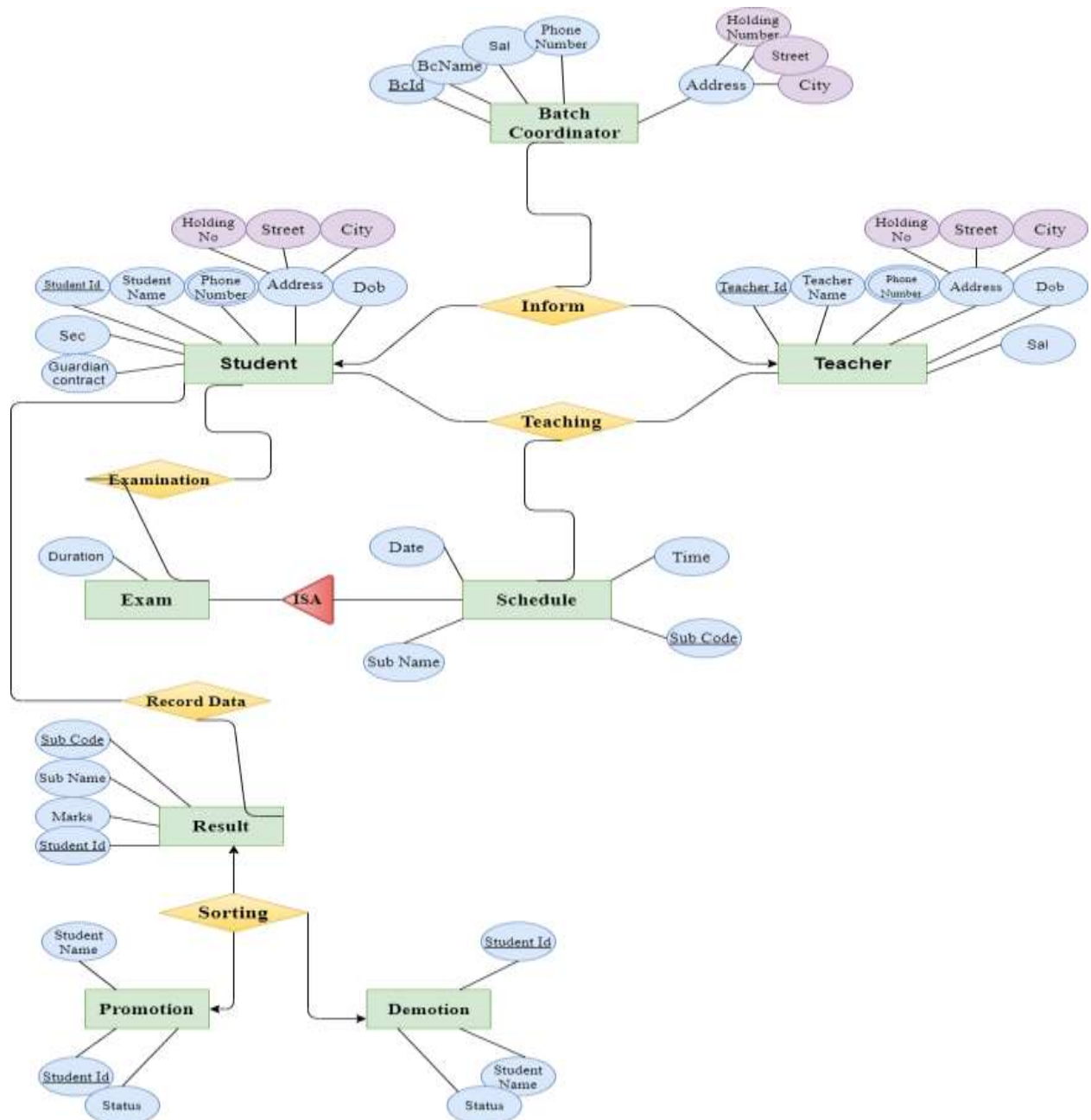
Normalization:

Information

(StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HoldingNo,Street,Cit

y,TeacherId,TeacherName, PhoneNumber,Dob,Sal, HoldingNo,Street,City,BcId,BcName,Sal,

PhoneNumber, HoldingNo,Street,City)

1NF:

PhoneNumber (multivalued attribute)

2NF:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HoldingNo,Street,City,BcId

2.TeacherId,TeacherName, PhoneNumber,Dob,Sal, HoldingNo,Street,City,BcId

3. BcId,BcName,Sal, PhoneNumber ,StudentId(FK),TeacherId(FK),HoldingNo,Street,City

4.STId, StudentId, TeacherId

3NF:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId,BcId

2.TeacherId,TeacherName, PhoneNumber,Dob,Sal, HSCId,BcId

3. BcId,BcName,Sal, PhoneNumber ,StudentId(FK),TeacherId(FK),HSCId

4.STId, StudentId, TeacherId

5.HSCId, HoldingNo,Street,City

Table:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId,BcId

2.TeacherId,TeacherName, PhoneNumber,Dob,Sal, HSCId,BcId

3. BcId,BcName,Sal, PhoneNumber ,StudentId(FK),TeacherId(FK),HSCId

4.STId, StudentId, TeacherId

5.HSCId, HoldingNo,Street,City

c

Teaching

(StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HoldingNo,Street,Cit
y,TeacherId,TeacherName, PhoneNumber,Dob,Sal, HoldingNo,Street,City,SubCode,Time,Date,
SubName)

1NF:

PhoneNumber (multivalued attribute)

2NF:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HoldingNo,Street,City

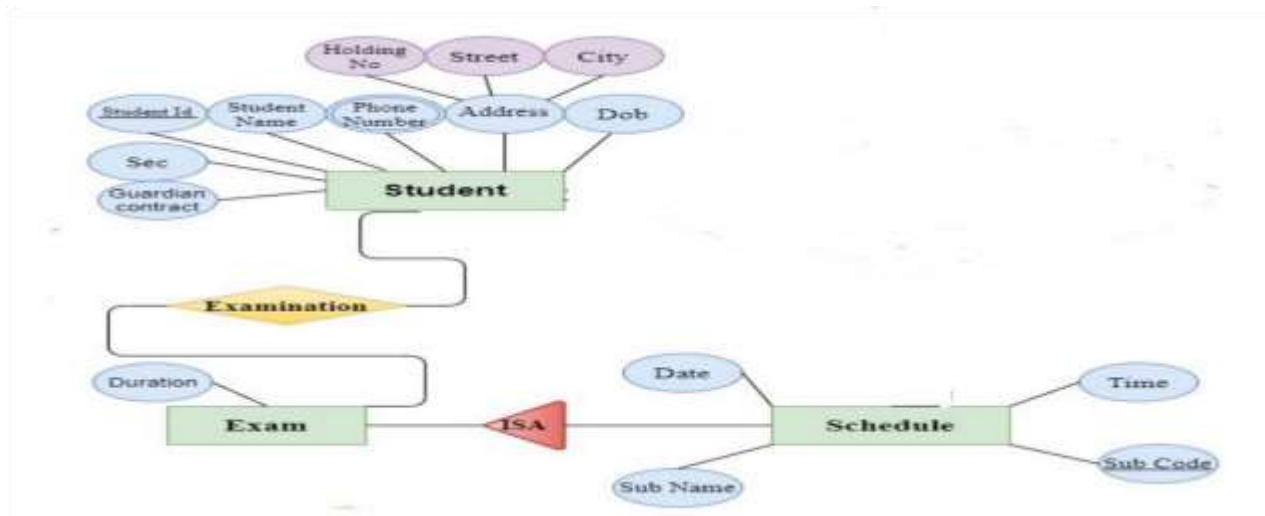2.TeacherId,TeacherName, PhoneNumber,Dob,Sal, HoldingNo,Street,City,StudentId(FK)

3. SubCode,Time,Date,SubName,StudentId(FK)

3NF:

1.<u>StudentId,</u>StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId

2.<u>TeacherId,</u>TeacherName, PhoneNumber,Dob,Sal HSCId,StudentId(FK)

3. <u>SubCode,</u>Time,Date,SubName,StudentId(FK)

4.<u>HSCId,</u> HoldingNo,Street,City

Table:

1.<u>StudentId,</u>StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId

2.<u>TeacherId,</u>TeacherName, PhoneNumber,Dob,Sal HSCId,StudentId(FK)

3. <u>SubCode,</u>Time,Date,SubName,StudentId(FK)

4.<u>HSCId,</u> HoldingNo,Street,City

Examination

(<u>StudentID</u>, Sutdent Name, Dob, Sec, Holding no, Street, City, Phone Number,Guardian Contract, <u>Subject Code</u>, Subject Name, Date, Time, Duration)

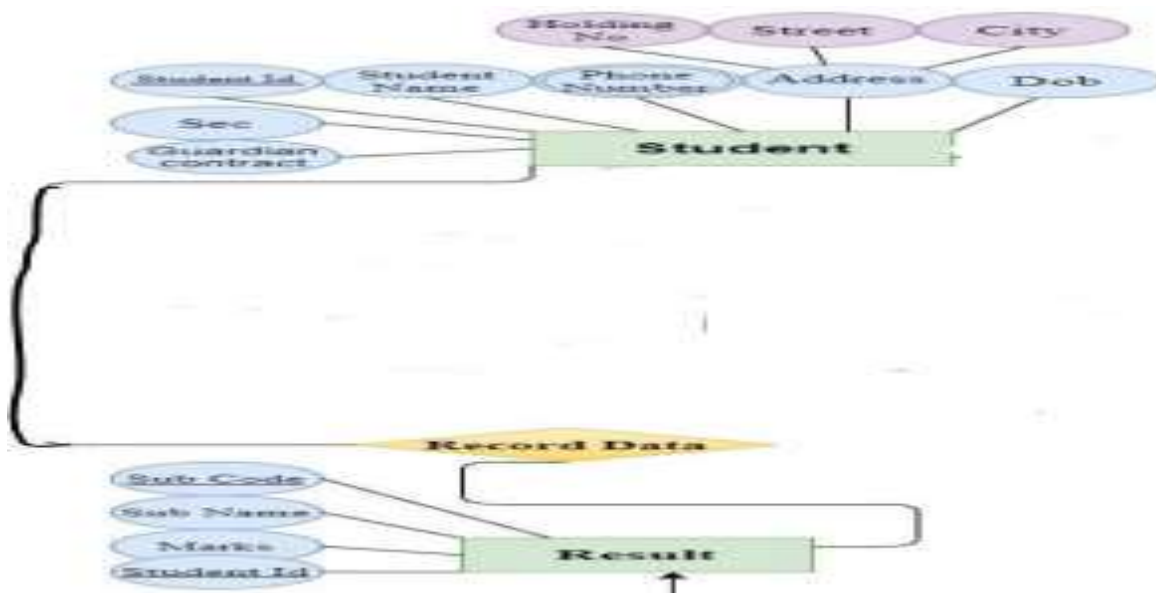**1NF:**

PhoneNumber (multivalued attribute)

2NF:

1.<u>StudentId,</u>StudentName,PhoneNumber,Dob,Sec,GradianContact,HoldingNo,Street,City

2. <u>Subject Code</u>, Subject Name, Date, Time, Duration,StudentId(FK)

3NF:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId

2. Subject Code, Subject Name, Date, Time, Duration,StudentId(FK)

3. HSCId, HoldingNo,Street,City

Table:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId

2. Subject Code, Subject Name, Date, Time, Duration,StudentId(FK)

3. HSCId, HoldingNo,Street,City

Record Data

(StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HoldingNo,Street,Cit

Y,SubCode,SubName,Marks,StudentId)

1NF:

PhoneNumber (multivalued attribute)

2NF:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HoldingNo,Street,City,SubCode(FK)

2. SubCode,SubName,Marks

3NF:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId, SubCode(FK)

2. SubCode,SubName,Marks

3. HSCId, HoldingNo,Street,City

Table:

1.StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId, SubCode(FK)

2. SubCode,SubName,Marks

3. HSCId, HoldingNo,Street,City
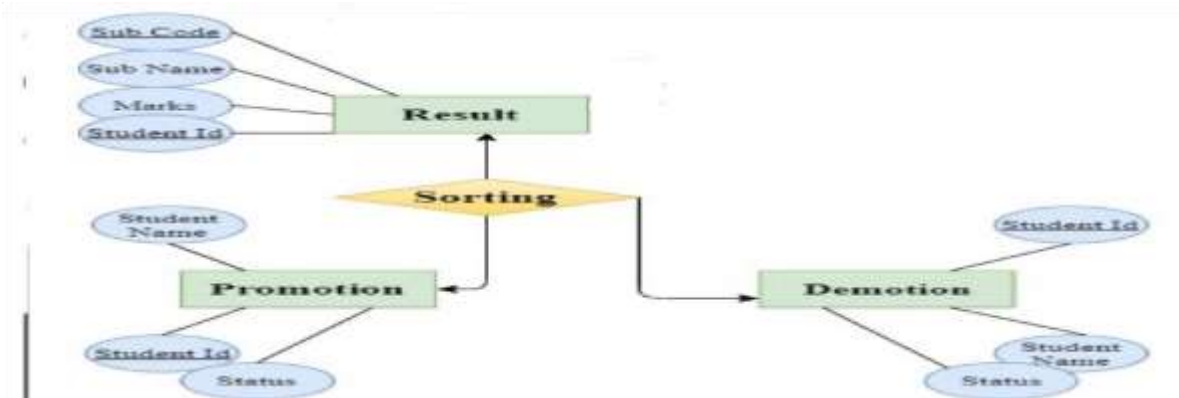
Sorting:

(SubCode,SubName,Marks,StudentId,StudentName,Status,StudentId,StudentName, Status,StudentId)

1NF:

No multivalued attribute

2NF:

1.StudentId,SubCode,SubName,Marks

2.StudentId,StudentName,Status

3.StudentId,StudentName,Status

3NF:

No Partial Dependency

Table:

1.StudentId,SubCode,SubName,Marks

2.StudentId,StudentName,Status

3.StudentId,StudentName,Status

Total Table:

StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId,BcId

TeacherId,TeacherName, PhoneNumber,Dob,Sal, HSCId,BcId

 BcId,BcName,Sal, PhoneNumber ,StudentId(FK),TeacherId(FK),HSCId

STId, StudentId, TeacherId

HSCId, HoldingNo,Street,City

StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId

TeacherId,TeacherName, PhoneNumber,Dob,Sal HSCId,StudentId(FK)

SubCode,Time,Date,SubName,StudentId(FK)

HSCId, HoldingNo,Street,City

StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId

Subject Code, Subject Name, Date, Time, Duration,StudentId(FK)

 HSCId, HoldingNo,Street,City

StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId, SubCode(FK)

 SubCode,SubName,Marks

HSCId, HoldingNo,Street,City

StudentId,SubCode,SubName,Marks

StudentId,StudentName,Status

StudentId,StudentName,Status

Final Table:

StudentId,StudentName,PhoneNumber,Dob,Sec,GradianContact,HSCId(FK),BcId(FK),

SubCode(FK)

BcId,BcName,Sal, PhoneNumber ,StudentId(FK),TeacherId(FK),HSCId(FK)

STId,_StudentId, TeacherId

HSCId, HoldingNo,Street,City

TeacherId,TeacherName, PhoneNumber,Dob,Sal HSCId(FK),StudentId(FK)

SubjectCode, Subject Name, Date, Time, Duration,StudentId(FK)

StudentId(FK),SubjectCode,SubName,Marks

StudentId(FK),StudentName,Status

Table creation & Data insertion:

create table student(

student_id number(5) constraint student_student_id_pk primary key,

student_name varchar2(15) not null,

phone_number number(11),

Date_of_Birth varchar2(15),

gradian_contact number(11) default 0,

subject_code number(3),

hsc_id number(5) constraint student_hsc_id_fk references address(hsc_id),

batchCoo_id number(5) constraint student_batchCoo_id_fk references batchCoo(batchCoo_id),

sec varchar(6) constraint student_sec_ck check (sec in ('A','B','C'))

)

desc student

```
create table student(
student_id number(5) constraint student_student_id_pk primary key,
student_name varchar2(15) not null,
phone_number number(11),
Date_of_Birth varchar2(15),
gradian_contact number(11) default 0,
subject_code number(3),
hsc_id number(5) constraint student_hsc_id_fk references address(hsc_id),
batchCoo_id number(5) constraint student_batchCoo_id_fk references  batchCoo(batchCoo_id) ,
sec varchar(6)  constraint student_sec_ck check (sec in ('A','B','C'))
)
desc student
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **STUDENT**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STUDENT	STUDENT_ID	Number	-	5	0	1	-	-	-
	STUDENT_NAME	Varchar2	15	-	-	-	-	-	-
	PHONE_NUMBER	Number	-	11	0	-	✓	-	-
	DATE_OF_BIRTH	Varchar2	15	-	-	-	✓	-	-
	GRADIAN_CONTACT	Number	-	11	0	-	✓	0	-
	SUBJECT_CODE	Number	-	3	0	-	✓	-	-
	HSC_ID	Number	-	5	0	-	✓	-	-
	BATCHCOO_ID	Number	-	5	0	-	✓	-	-
	SEC	Varchar2	6	-	-	-	✓	-	-

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insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(101,'Satabdi',01912302524,'17-12-1999',01793179626,501,3301,1000,'A')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(102,'Shadin',0194576349,'05-08-1999',01746789626,502,3302,1001,'B')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(103,'Shusmi',0165576349,'01-06-1998',01987789626,503,3303,1002,'C')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(104,'Siam',01793179626,'05-08-1999',01521542112,504,3304,1003,'A')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(105,'Setu',01735233728,'14-09-1999',01979876543,505,3305,1004,'C')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(106,'Labonno',0165576349,'09-06-2000',01987789626,506,3306,1005,'B')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(107,'Dipa',01987654325,'29-07-1998',01987789626,507,3307,1006,'B')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(108,'Tondra',01787654325,'19-10-1997',01609878909,508,3308,1007,'A')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(109,'Nijhum',01498760987,'12-02-1999',01987789626,509,3309,1008,'B')

insert into student

(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id
,batchCoo_id,sec) values

(110,'Songita',01345678910,'31-10-1998',0196789098,510,3310,1009,'B')

select * from student

```
insert into student
(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id,batchCoo_id,sec) values
(101,'Satabdi',01912302524,'17-12-1999',01793179626,501,3301,1000,'A')
insert into student
(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id,batchCoo_id,sec) values
(102,'Shadin',0194576349,'05-08-1999',01746789626,502,3302,1001,'B')
insert into student
(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id,batchCoo_id,sec) values
(103,'Shusmi',0165576349,'01-06-1998',01987789626,503,3303,1002,'C')
insert into student
(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id,batchCoo_id,sec) values
(104,'Siam',01793179626,'05-08-1999',01521542112,504,3304,1003,'A')
insert into student
(student_id,student_name,phone_number,Date_of_Birth,gradian_contact,subject_code,hsc_id,batchCoo_id,sec) values
(105,'Setu',01735233728,'14-09-1999',01979876543,505,3305,1004,'C')
insert into student
```

Results Explain Describe Saved SQL History

STUDENT_ID	STUDENT_NAME	PHONE_NUMBER	DATE_OF_BIRTH	GRADIAN_CONTACT	SUBJECT_CODE	HSC_ID	BATCHCOO_ID	SEC
101	Satabdi	1912302524	17-12-1999	1793179626	501	3301	1000	A
102	Shadin	194576349	05-08-1999	1746789626	502	3302	1001	B
103	Shusmi	165576349	01-06-1998	1987789626	503	3303	1002	C
104	Siam	1793179626	05-08-1999	1521542112	504	3304	1003	A
105	Setu	1735233728	14-09-1999	1979876543	505	3305	1004	C
106	Labonno	165576349	09-06-2000	1987789626	506	3306	1005	B
107	Dipa	1987654325	29-07-1998	1987789626	507	3307	1006	B
110	Songta	1345678910	31-10-1998	196789098	510	3310	1009	B
108	Tondra	1787654325	19-10-1997	1609878909	508	3308	1007	A
109	Nijhum	1498760987	12-02-1999	1987789626	509	3309	1008	B

10 rows returned in 0.00 seconds   CSV Export

----

create table teacher(

teacher_id number(5) constraint teacher_teacher_id_pk primary key,

student_id number(5) constraint teacher_student_id_pk references student(student_id),

teacher_name varchar2(15) not null,

phone_number number(11),

Date_of_Birth varchar2(15),

salary number(6) default 0,

hsc_id number(5) constraint teacher_hsc_id_fk references address(hsc_id)

)

desc teacher

```
create table teacher(
teacher_id number(5) constraint teacher_teacher_id_pk primary key,
student_id number(5) constraint teacher_student_id_pk references student(student_id),
teacher_name varchar2(15) not null,
phone_number number(11),
Date_of_Birth varchar2(15),
salary number(6) default 0,
hsc_id number(5) constraint teacher_hsc_id_fk references address(hsc_id)
)
```

Results   Explain   **Describe**   Saved SQL   History

Object Type **TABLE** Object **TEACHER**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TEACHER	TEACHER_ID	Number	-	5	0	1	-	-	-
	STUDENT_ID	Number	-	5	0	-	✓	-	-
	TEACHER_NAME	Varchar2	15	-	-	-	-	-	-
	PHONE_NUMBER	Number	-	11	0	-	✓	-	-
	DATE_OF_BIRTH	Varchar2	15	-	-	-	✓	-	-
	SALARY	Number	-	6	0	-	✓	0	-
	HSC_ID	Number	-	5	0	-	✓	-	-
									1 - 7

==insert into teacher==

(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values

(5200,101,'Md.Borhan Islam',0198765421,'11-12-1985',15000,900)

insert into teacher

(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values

(5201,102,'Mst.Samir Khan',0198765421,'03-08-1989',15000,901)

insert into teacher

(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values

(5202,103,'Sabbir Hossain',01987608096,'14-08-1990',14000,902)

insert into teacher

(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values

(5203,104,'Shamun Hossain',01945677654,'07-06-1989',14500,903)

insert into teacher

(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values

(5204,105,'Mim Khatun',01745617654,'19-01-1990',13000,904)

insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5205,106,'Iqbal Mahmud',01445677678,'07-06-1990',12000,905)
insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5206,107,'Sakib Hasan',01367890987,'31-11-1990',17000,906)
insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5207,108,'Siam Hasan',01610083516,'21-01-1990',18000,907)
insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5208,109,'Sabina Islam',01972302524,'18-10-1988',15000,908)
insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5209,110,'Sohidul Islam',01912302524,'19-10-1988',16000,909)
select * from student

```
insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5200,101,'Md.Borhan Islam',0198765421,'11-12-1985',15000,900)
insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5201,102,'Mst.Samir Khan',0198765421,'03-08-1989',15000,901)
insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5202,103,'Sabbir Hossain',01987608096,'14-08-1990',14000,902)
insert into teacher
(teacher_id,student_id,teacher_name,phone_number,Date_of_Birth,salary,hsc_id) values
(5203,104,'Shamun Hossain',01945677654,'07-06-1989',14500,903)
insert into teacher
```

Results Explain Describe Saved SQL History

TEACHER_ID	STUDENT_ID	TEACHER_NAME	PHONE_NUMBER	DATE_OF_BIRTH	SALARY	HSC_ID
5200	101	Md.Borhan Islam	198765421	11-12-1985	15000	900
5201	102	Mst.Samir Khan	198765421	03-08-1989	15000	901
5204	105	Mim Khatun	1745617654	19-01-1990	13000	904
5202	103	Sabbir Hossain	1987608096	14-08-1990	14000	902
5203	104	Shamun Hossain	1945677654	07-06-1989	14500	903
5205	106	Iqbal Mahmud	1445677678	07-06-1990	12000	905
5206	107	Sakib Hasan	1367890987	31-11-1990	17000	906
5207	108	Siam Hasan	1610083516	21-01-1990	18000	907
5208	109	Sabina Islam	1972302524	18-10-1988	15000	908
5209	110	Sohidul Islam	1912302524	19-10-1988	16000	909

----

create table batchCoo(

batchCoo_id number(5) constraint batchCoo_id_pk primary key,

student_id number(5) constraint batchCoo_student_id_fk references student(student_id),

teacher_id number(5) constraint batchCoo_teacher_id_fk references teacher(teacher_id),

batchCoo_name varchar2(15) not null,

salary number(6) default 0,

phone_number number(11),

hsc_id number(5) constraint batchCoo_hsc_id_fk references address(hsc_id)

)

desc batchCoo

```
create table batchCoo(
batchCoo_id number(5) constraint batchCoo_id_pk primary key,
student_id number(5) constraint batchCoo_student_id_fk references student(student_id),
teacher_id number(5) constraint batchCoo_teacher_id_fk references teacher(teacher_id),
batchCoo_name varchar2(15) not null,
salary number(6) default 0,
phone_number number(11),
hsc_id number(5) constraint batchCoo_hsc_id_fk references address(hsc_id)
)
desc batchCoo
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **BATCHCOO**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
BATCHCOO	BATCHCOO_ID	Number	-	5	0	1	-	-	-
	STUDENT_ID	Number	-	5	0	-	✓	-	-
	TEACHER_ID	Number	-	5	0	-	✓	-	-
	BATCHCOO_NAME	Varchar2	15	-	-	-	-	-	-
	SALARY	Number	-	6	0	-	✓	0	-
	PHONE_NUMBER	Number	-	11	0	-	✓	-	-
	HSC_ID	Number	-	5	0	-	✓	-	-

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insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1000,101,5200,'Sonia',6000,01868954208,320)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1001,102,5201,'Roni',6000,01868954208,420)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1002,103,5202,'Ava',7000,01521542112,520)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1003,104,5203,'Sadia',6500,01790542112,620)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1004,105,5204,'Islam',6300,0170988908,720)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1005,106,5205,'Mahmud',6700,01890876985,820)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1006,107,5206,'Mahmud',5200,01198760987,920)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1007,108,5207,'Mehedy',5000,01521542112,1020)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1008,109,5208,'Mehedy',5500,01521542121,1120)

insert into batchCoo

(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id) values

(1009,110,5209,'Zabir',7500,01521544534,1220)

select *from batchCoo

```
insert into batchCoo
(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id ) values
(1000,101,5200,'Sonia',6000,01868954208,320)
insert into batchCoo
(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id ) values
(1001,102,5201,'Roni',6000,01868954208,420)
insert into batchCoo
(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id ) values
(1002,103,5202,'Ava',7000,01521542112,520)
insert into batchCoo
(batchCoo_id,student_id,teacher_id,batchCoo_name,salary,phone_number,hsc_id ) values
(1003,104,5203,'Sadia',6500,01790542112,620)
```

Results   Explain   Describe   Saved SQL   History

BATCHCOO_ID	STUDENT_ID	TEACHER_ID	BATCHCOO_NAME	SALARY	PHONE_NUMBER	HSC_ID
1000	101	5200	Sonia	6000	1868954208	320
1001	102	5201	Roni	6000	1868954208	420
1004	105	5204	Islam	6300	170988908	720
1002	103	5202	Ava	7000	1521542112	520
1003	104	5203	Sadia	6500	1790542112	620
1005	106	5205	Mahmud	6700	1890876985	820
1006	107	5206	Mahmud	5200	1198760987	920
1007	108	5207	Mehedy	5000	1521542112	1020
1008	109	5208	Mehedy	5500	1521542121	1120
1009	110	5209	Zabir	7500	1521544534	1220

10 rows returned in 0.00 seconds   CSV Export

----

create table address(

hsc_id number(5) constraint address_hsc_id_pk primary key,

holding_no number(5) ,

street varchar2(15) ,

city varchar(10)

)

desc address

```
create table address(
hsc_id number(5) constraint address_hsc_id_pk primary key,
holding_no number(5) not null,
street varchar2(15) not null,
city varchar(10) default 0
)
desc address
```

Results   Explain   **Describe**   Saved SQL   History

Object Type **TABLE** Object **ADDRESS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ADDRESS	HSC_ID	Number	-	5	0	1	-	-	-
	HOLDING_NO	Number	-	5	0	-	-	-	-
	STREET	Varchar2	15	-	-	-	-	-	-
	CITY	Varchar2	10	-	-	-	✓	0	-
									1 - 4

insert into address

(hsc_id,holding_no,street,city) values

(3301,111,'Sahjalal road','Sirajgonj')

insert into address

(hsc_id,holding_no,street,city) values

(3302,501,'SSS road','Sirajgonj')

insert into address

(hsc_id,holding_no,street,city) values

(3303,309,'1No.KP road','Sirajgonj')

insert into address

(hsc_id,holding_no,street,city) values

(3304,310,'1No.KP road','Sirajgonj')

insert into address

(hsc_id,holding_no,street,city) values

(3305,410,'2No.KP road','Sirajgonj')

```sql
insert into address
(hsc_id,holding_no,street,city) values
(3306,411,'2No.KP road','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(3307,511,'Mujib road','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(3308,518,'Mujib road','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(3309,618,'Gurka road','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(3310,718,'Jaikhana road','Sirajgonj')

insert into address
(hsc_id,holding_no,street,city) values
(900,789,'Bonani road','Dhaka')
insert into address
(hsc_id,holding_no,street,city) values
(901,987,'Eliot road','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(902,799,'Meher road','Khustia')
insert into address
(hsc_id,holding_no,street,city) values
```

(903,899,'Figter road','Borisal')

insert into address

(hsc_id,holding_no,street,city) values

(904,999,'Moulovi Bazar','Shylet')

insert into address

(hsc_id,holding_no,street,city) values

(905,599,'Bondor Nogor','Chottogram')

insert into address

(hsc_id,holding_no,street,city) values

(906,1000,'Laxipur','Rajsahi')

insert into address

(hsc_id,holding_no,street,city) values

(907,1368,'Binor para','Khustia')

insert into address

(hsc_id,holding_no,street,city) values

(908,1368,'Janpur para','Sirajgonj')

insert into address

(hsc_id,holding_no,street,city) values

(909,1368,'Dotto Bari','Bogura')

insert into address

(hsc_id,holding_no,street,city) values

(320,1100,'kalibari road','Nouga')

insert into address

(hsc_id,holding_no,street,city) values

(420,2603,'osthir road','Vola')

insert into address

```sql
(hsc_id,holding_no,street,city) values
(520,3333,'Noyon Mor','Magura')
insert into address
(hsc_id,holding_no,street,city) values
(620,3433,'Shumon Mor','Magura')
insert into address
(hsc_id,holding_no,street,city) values
(720,5433,'Muktar plaza','Dhaka')
insert into address
(hsc_id,holding_no,street,city) values
(820,1033,'Bon Para ','Nator')
insert into address
(hsc_id,holding_no,street,city) values
(920,3310,'Helaly Road','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(1020,9087,'Boro Pul','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(1120,5674,'Bagan Bari','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(1220,5674,'Ful Bari','Sirajgonj')
select * from address
```

```
insert into address
(hsc_id,holding_no,street,city) values
(3301,111,'Sahjalal road','Sirajgonj')
insert into address
(hsc_id,holding_no,street,city) values
(3302,501,'SSS road','Sirajgonj')
insert into address
(hsc_id_holding_no_street_city)_values
```

Results **Explain** **Describe** **Saved SQL** **History**

HSC_ID	HOLDING_NO	STREET	CITY
3301	111	Sahjalal road	Sirajgonj
3302	501	SSS road	Sirajgonj
3303	309	1No.KP road	Sirajgonj
3304	310	1No.KP road	Sirajgonj
3305	410	2No.KP road	Sirajgonj
3306	411	2No.KP road	Sirajgonj
3307	511	Mujib road	Sirajgonj
3308	518	Mujib road	Sirajgonj
3309	618	Gurka road	Sirajgonj
3310	718	Jaikhana road	Sirajgonj
900	789	Bonani road	Dhaka
901	987	Eliot road	Sirajgonj
902	799	Meher road	Khustia
903	899	Figter road	Borisal
904	999	Moulovi Bazar	Shylet
905	599	Bondor Nogor	Chottogram
906	1000	Laxipur	Rajsahi
907	1368	Binor para	Khustia
908	1368	Janpur para	Sirajgonj
909	1368	Dotto Bari	Bogura
320	1100	kalibari road	Nouga
420	2603	osthir road	Vola
520	3333	Noyon Mor	Magura
620	3433	Shumon Mor	Magura
720	5433	Muktar plaza	Dhaka
820	1033	Bon Para	Nator
920	3310	Helaly Road	Sirajgonj
1020	9087	Boro Pul	Sirajgonj
1120	5674	Bagan Bari	Sirajgonj
1220	5674	Ful Bari	Sirajgonj

----

create table examination(

subject_code number(3) constraint examination_subject_code_pk primary key,

student_id number(5) constraint examination_student_id_fk references student(student_id),

subject_name varchar(5) not null,

date_of_exam varchar2(10) not null,

time varchar2(5) not null,

duration varchar2(5) not null

)

desc examination

```
create table examination(
subject_code number(3) constraint examination_subject_code_pk primary key,
student_id number(5) constraint examination_student_id_fk references student(student_id),
subject_name varchar(5) not null,
date_of_exam varchar2(10) not null,
time varchar2(5) not null,
duration varchar2(5) not null
)
desc examination
```

Results   Explain   **Describe**   Saved SQL   History

Object Type **TABLE** Object **EXAMINATION**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EXAMINATION	SUBJECT_CODE	Number	-	3	0	1	-	-	-
	STUDENT_ID	Number	-	5	0	-	✓	-	-
	SUBJECT_NAME	Varchar2	5	-	-	-	-	-	-
	DATE_OF_EXAM	Varchar2	10	-	-	-	-	-	-
	TIME	Varchar2	5	-	-	-	-	-	-
	DURATION	Varchar2	5	-	-	-	-	-	-
									1 - 6

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(501,101,'Math','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(502,102,'Eng','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(503,103,'Phy','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(504,104,'Che','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(505,105,'Bio','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(506,106,'H.mat','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(507,107,'Accou','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(508,108,'Eco','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(509,109,'Islam','20 DEC 20','2pm','2h')

insert into examination

(subject_code,student_id,subject_name,date_of_exam,time,duration) values

(510,110,'ICT','20 DEC 20','2pm','2h')

select *from examination

```
insert into examination
(subject_code,student_id,subject_name,date_of_exam,time,duration) values
(501,101,'Math','20 DEC 20','2pm','2h')
insert into examination
(subject_code,student_id,subject_name,date_of_exam,time,duration) values
(502,102,'Eng','20 DEC 20','2pm','2h')
insert into examination
(subject_code,student_id,subject_name,date_of_exam,time,duration) values
(503,103,'Phy','20 DEC 20','2pm','2h')
insert into examination
```

Results Explain Describe Saved SQL History

SUBJECT_CODE	STUDENT_ID	SUBJECT_NAME	DATE_OF_EXAM	TIME	DURATION
501	101	Math	20 DEC 20	2pm	2h
502	102	Eng	20 DEC 20	2pm	2h
503	103	Phy	20 DEC 20	2pm	2h
504	104	Che	20 DEC 20	2pm	2h
505	105	Bio	20 DEC 20	2pm	2h
508	108	Eco	20 DEC 20	2pm	2h
506	106	H.mat	20 DEC 20	2pm	2h
507	107	Accou	20 DEC 20	2pm	2h
509	109	Islam	20 DEC 20	2pm	2h
510	110	ICT	20 DEC 20	2pm	2h

10 rows returned in 0.00 seconds   CSV Export

----

create table result(

student_id number(5) constraint result_student_id_fk references student(student_id),

subject_code number(4) not null ,

subject_name varchar2(5) not null,

marks number(3) not null

)

desc result

```
create table result(
student_id number(5) constraint result_student_id_fk references student(student_id),
subject_code number(4) not null ,
subject_name varchar2(5) not null,
marks number(3) not null
)
desc result
```

Results   Explain   **Describe**   Saved SQL   History

Object Type **TABLE** Object **RESULT**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
RESULT	STUDENT_ID	Number	-	5	0	-	✓	-	-
	SUBJECT_CODE	Number	-	4	0	-	-	-	-
	SUBJECT_NAME	Varchar2	5	-	-	-	-	-	-
	MARKS	Number	-	3	0	-	-	-	-

1 - 4

insert into result

(student_id ,subject_code,subject_name,marks) values

(101,501,'Math',90)

insert into result

(student_id ,subject_code,subject_name,marks) values

(102,502,'Eng',75)

insert into result

(student_id ,subject_code,subject_name,marks) values

(103,503,'Phy',80)

insert into result

(student_id ,subject_code,subject_name,marks) values

(104,504,'Che',82)

insert into result

(student_id ,subject_code,subject_name,marks) values

(105,505,'Bio',65)

```sql
insert into result
(student_id ,subject_code,subject_name,marks) values
(106,506,'H.mat',70)
insert into result
(student_id ,subject_code,subject_name,marks) values
(107,507,'Accou',88)
insert into result
(student_id ,subject_code,subject_name,marks) values
(108,508,'Eco',78)
insert into result
(student_id ,subject_code,subject_name,marks) values
(109,509,'Islam',81)
insert into result
(student_id ,subject_code,subject_name,marks) values
(110,510,'ICT',95)

select * from result
```

```
insert into result
(student_id ,subject_code,subject_name,marks) values
(101,501,'Math',90)
insert into result
(student_id ,subject_code,subject_name,marks) values
(102,502,'Eng',75)
insert into result
(student_id ,subject_code,subject_name,marks) values
(103,503,'Phy',80)
insert into result
(student_id ,subject_code,subject_name,marks) values
```

Results **Explain** **Describe** **Saved SQL** **History**

STUDENT_ID	SUBJECT_CODE	SUBJECT_NAME	MARKS
101	501	Math	90
102	502	Eng	75
103	503	Phy	80
104	504	Che	82
105	505	Bio	65
106	506	H.mat	70
107	507	Accou	88
108	508	Eco	78
109	509	Islam	81
110	510	ICT	95

10 rows returned in 0.44 seconds   CSV Export

==create table status==(

student_id number(5) constraint status_student_id_fk references student(student_id),

student_name varchar2(15) not null,

status varchar2(15) not null

)

desc status

```
create table status(
student_id number(5) constraint status_student_id_fk references student(student_id),
student_name varchar2(15) not null,
status varchar2(15) not null
)
desc status
```

Results   Explain   **Describe**   Saved SQL   History

Object Type **TABLE** Object **STATUS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STATUS	STUDENT_ID	Number	-	5	0	-	✓	-	-
	STUDENT_NAME	Varchar2	15	-	-	-	-	-	-
	STATUS	Varchar2	15	-	-	-	-	-	-
									1 - 3

==insert into status==

(student_id,student_name,status) values

(101,'Satabdi','very Good')

insert into status

(student_id,student_name,status) values

(102,'Shadin','Not Good')

insert into status

(student_id,student_name,status) values

(103,'Shusmi','Good')

insert into status

(student_id,student_name,status) values

(104,'Siam','Good')

```sql
insert into status
(student_id,student_name,status ) values
(105,'Setu','Very Bad')
insert into status
(student_id,student_name,status ) values
(106,'Labonno','Bad ')
insert into status
(student_id,student_name,status ) values
(107,'Dipa','Good')
insert into status
(student_id,student_name,status ) values
(108,'Sangita','Not Good')
insert into status
(student_id,student_name,status ) values
(109,'Tondra','Good')
insert into status
(student_id,student_name,status ) values
(110,'Nijhum','Very Good')
select * from status
```

```
insert into status
(student_id,student_name,status ) values
(101,'Satabdi','very Good')
insert into status
(student_id,student_name,status ) values
(102,'Shadin','Not Good')
insert into status
(student_id,student_name,status ) values
(103,'Shusmi','Good')
insert into status
```

Results **Explain** **Describe** **Saved SQL** **History**

STUDENT_ID	STUDENT_NAME	STATUS
101	Satabdi	very Good
102	Shadin	Not Good
103	Shusmi	Good
104	Siam	Good
105	Setu	Very Bad
106	Labonno	Bad
107	Dipa	Good
108	Sangita	Not Good
109	Tondra	Good
110	Nijhum	Very Good

10 rows returned in 0.00 seconds   CSV Export

create table TeacherStudent(

teaStu_id varchar2(4) constraint TeacherStudent__pk primary key,

student_id number(5) constraint TeacherStudent_student_id_fk references student(student_id),

teacher_id number(5) constraint TeacherStudent_teacher_id_fk references teacher(teacher_id)

)

desc TeacherStudent

```
create table TeacherStudent(
teaStu_id varchar2(4) constraint TeacherStudent__pk primary key,
student_id number(5) constraint TeacherStudent_student_id_fk references student(student_id),
teacher_id number(5) constraint TeacherStudent_teacher_id_fk references teacher(teacher_id)
)
desc TeacherStudent
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **TEACHERSTUDENT**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
TEACHERSTUDENT	TEASTU_ID	Varchar2	4	-	-	1	-	-	-
	STUDENT_ID	Number	-	5	0	-	✓	-	-
	TEACHER_ID	Number	-	5	0	-	✓	-	-
									1 - 3

insert into TeacherStudent

(teaStu_id,student_id,teacher_id) values

('1',101,5200)

insert into TeacherStudent

(teaStu_id,student_id,teacher_id) values

('2',102,5201)

insert into TeacherStudent

(teaStu_id,student_id,teacher_id) values

('3',103,5202)

insert into TeacherStudent

(teaStu_id,student_id,teacher_id) values

('4',104,5203)

```sql
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('5',105,5204)
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('6',106,5205)
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('7',107,5206)
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('8',108,5207)
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('9',109,5208)
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('10',110,5209)
select *from TeacherStudent
```

```
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('1',101,5200)
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('2',102,5201)
insert into TeacherStudent
(teaStu_id,student_id,teacher_id) values
('3',103,5202)
insert into TeacherStudent
```

Results   Explain   Describe   Saved SQL   History

TEASTU_ID	STUDENT_ID	TEACHER_ID
1	101	5200
2	102	5201
5	105	5204
3	103	5202
4	104	5203
6	106	5205
7	107	5206
8	108	5207
9	109	5208
10	110	5209

10 rows returned in 0.00 seconds   CSV Export

Sub Query:

select * from student where student_name in (select student_name from student where student_id=104)

```
select * from student where student_name in (select student_name from student where student_id=104)
```

Results Explain Describe Saved SQL History

STUDENT_ID	STUDENT_NAME	PHONE_NUMBER	DATE_OF_BIRTH	GRADIAN_CONTACT	SUBJECT_CODE	HSC_ID	BATCHCOO_ID	SEC
104	Siam	1793179626	05-08-1999	1521542112	504	3304	1003	A

1 rows returned in 0.00 seconds   CSV Export

select teacher_name,teacher_id,salary from teacher where salary in(select salary from teacher where teacher_name like 'S%')

```
select teacher_name,teacher_id,salary from teacher where salary in( select salary from teacher where teacher_name like 'S%')
```

Results Explain Describe Saved SQL History

TEACHER_NAME	TEACHER_ID	SALARY
Sabbir Hossain	5202	14000
Shamun Hossain	5203	14500
Sakib Hasan	5206	17000
Siam Hasan	5207	18000
Sabina Islam	5208	15000

select batchCoo_id,batchCoo_name,salary,phone_number from batchCoo where salary in (select salary from batchCoo where salary>6000)

```
select batchCoo_id,batchCoo_name,salary,phone_number from batchCoo where salary in (select salary from batchCoo where salary>6000)
```

Results Explain Describe Saved SQL History

BATCHCOO_ID	BATCHCOO_NAME	SALARY	PHONE_NUMBER
1004	Islam	6300	170988908
1002	Ava	7000	1521542112
1003	Sadia	6500	1790542112
1005	Mahmud	6700	1890876985
1009	Zabir	7500	1521544534

5 rows returned in 0.15 seconds   CSV Export

Joining:

select s.student_id,s.student_name,a.city from student s,address a where s.hsc_id=a.hsc_id

```
select s.student_id,s.student_name,a.city from student s,address a where s.hsc_id=a.hsc_id
```

Results Explain Describe Saved SQL History

STUDENT_ID	STUDENT_NAME	CITY
101	Satabdi	Sirajgonj
102	Shadin	Sirajgonj
103	Shusmi	Sirajgonj
104	Siam	Sirajgonj
105	Setu	Sirajgonj
106	Labonno	Sirajgonj
107	Dipa	Sirajgonj
108	Tondra	Sirajgonj
109	Nijhum	Sirajgonj
110	Songita	Sirajgonj

10 rows returned in 0.83 seconds   CSV Export

select t.teacher_id,t.salary,a.city from address a,teacher t where t.hsc_id=a.hsc_id and t.salary<16000

```
select t.teacher_id,t.salary,a.city from address a,teacher t where t.hsc_id=a.hsc_id and t.salary<16000
```

Results Explain Describe Saved SQL History

TEACHER_ID	SALARY	CITY
5200	15000	Dhaka
5201	15000	Sirajgonj
5202	14000	Khustia
5203	14500	Borisal
5204	13000	Shyfet
5205	12000	Chottogram
5208	15000	Sirajgonj

7 rows returned in 0.08 seconds   CSV Export

select r.student_id,s.student_name,r.subject_code,r.marks,s.status from result r,status s where r.student_id=s.student_id and s.status='Good'

```
select r.student_id,s.student_name,r.subject_code,r.marks,s.status from result r,status s where r.student_id=s.student_id and
s.status='Good'
```

Results Explain Describe Saved SQL History

STUDENT_ID	STUDENT_NAME	SUBJECT_CODE	MARKS	STATUS
103	Shusmi	503	80	Good
104	Siam	504	82	Good
107	Dipa	507	88	Good
109	Tondra	509	81	Good

4 rows returned in 0.03 seconds   CSV Export

Group function:

select count (*) from student

```
select count (*) from student
```

Results Explain Describe Saved SQL History

COUNT(*)
10

1 rows returned in 0.13 seconds   CSV Export

select max(salary) from teacher

```
select max(salary) from teacher
```

Results Explain Describe Saved SQL History

MAX(SALARY)

18000

1 rows returned in 0.00 seconds   CSV Export

select avg(marks) from result

```
select avg(marks) from result
```

Results Explain Describe Saved SQL History

AVG(MARKS)

80.4

1 rows returned in 0.00 seconds   CSV Export

Sequence:

create sequence stu_sid

start with 110

maxvalue 150

increment by 1

```
create sequence stu_sid
start with 110
maxvalue 150
increment by 1
```

Results Explain Describe Saved SQL History

Sequence created.

0.01 seconds

insert into student (student_id,student_name) values (stu_sid.nextval,'Roni')

```
insert into student (student_id,student_name) values (stu_sid.nextval,'Roni')
```
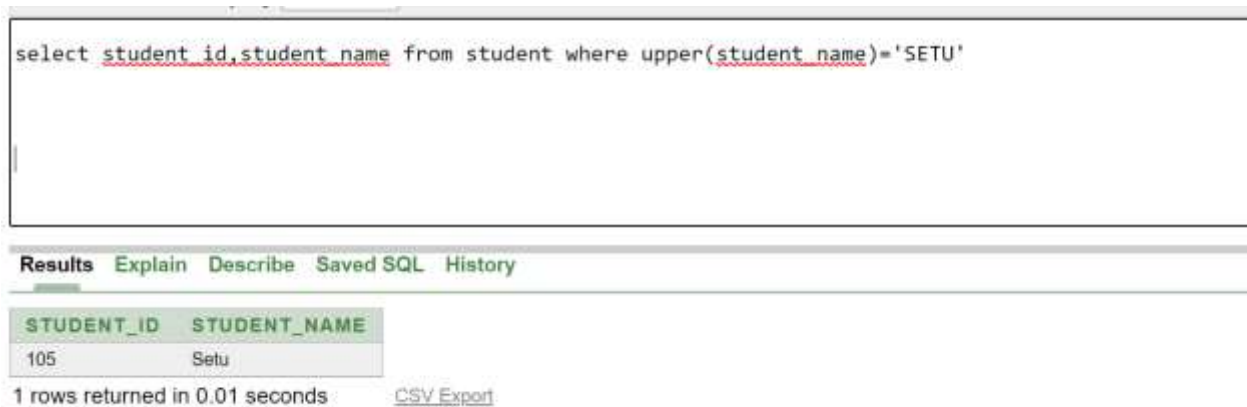
Results Explain Describe Saved SQL History

1 row(s) inserted.

0.00 seconds

Single row function:

select student_id,student_name from student where upper(student_name)='SETU'

```
select student_id,student_name from student where upper(student_name)='SETU'
```

Results   Explain   Describe   Saved SQL   History

STUDENT_ID	STUDENT_NAME
105	Setu

1 rows returned in 0.01 seconds   CSV Export

View:

create view info

as select student_id,student_name,status

from status

where status='Good'

```
create view info
as select student_id,student_name,status
from status
where status='Good'
```

Results   Explain   Describe   Saved SQL   History

View created.

2.85 seconds

The End