

```
//create database

create database student_managment_system

//creating table

//student table

create table student(
    student_id serial primary key,
    email varchar(45) not null unique,
    password varchar(45) not null,
    firstname varchar(45) not null,
    lastname varchar(45) not null,
    status varchar(45) not null
);

//teacher table

create table teacher(
    teacher_id serial primary key,
    email varchar(45) not null unique,
    password varchar(45) not null,
    firstname varchar(45) not null,
    lastname varchar(45) not null,
    phone varchar(45) not null
);

//class table

create table class(
    class_id serial primary key,
    year varchar(15) not null,
    section char(3) not null,
    teacher_id int not null,
    foreign key(teacher_id) references teacher(teacher_id)
)

//course table

create table course(
    course_id serial primary key,
    course_name varchar(45) not null,
    ects int not null,
    grade char(3)
)

//exam table

create table exam(
    exam_id serial primary key,
    name varchar(43) not null,
    description varchar(69) not null,
    start_date Date not null,
    exam_type varchar(30) not null
```

```

)

//exam_result table

create table exam_result(
    exam_id int not null,
    student_id int not null,
    course_id int not null,
    marks varchar(45) not null,
    foreign key(exam_id) references exam(exam_id),
    foreign key(student_id) references student(student_id),
    foreign key(course_id) references course(course_id)
)

//course_teacher table

create table course_teacher(
    id serial primary key,
    course_id int not null,
    teacher_id int not null,
    foreign key(course_id) references course(course_id),
    foreign key(teacher_id) references teacher(teacher_id)
)

//class_student table

create table class_student(
    class_id int not null,
    student_id int not null,
    foreign key(class_id) references class(class_id),
    foreign key(student_id) references student(student_id)
)

//INSERTING DATE to student table

insert into student (email,password,firstname,lastname,status) values(
    "tekane@gmail.com",'tek734','Tekane','Tekilu','regular'
)
insert into student (email,password,firstname,lastname,status) values(
    "selam@gmail.com",'seli734','selam','kebede','exetension'
)
insert into student (email,password,firstname,lastname,status) values(
    "betty@gmail.com",'bey734','Bety','abebe','regular'
)
insert into student (email,password,firstname,lastname,status) values(
    "derbe@gmail.com",'der734','derbachew','lake','regular'
)
insert into student (email,password,firstname,lastname,status) values(
    "marta@gmail.com",'mar734','maranata','Tekilu','regular'
)

//INSERTING DATE to teacher table
insert into student (email,password,firstname,lastname,status) values(
    "seifu@gmail.com",'mar734','abebe','Tekilu','regular'
)
insert into student (email,password,firstname,lastname,status) values(
    "mark@gmail.com",'mar734','markos','adane','regular'
)

```

```

)
insert into student (email,password,firstname,lastname,status) values(
    "getasew@gmail.com",'mar734','getasewu','basiel','regular'
)
insert into student (email,password,firstname,lastname,status) values(
    "berhane@gmail.com",'mar734','berhane','manjunat','regular'
)
insert into student (email,password,firstname,lastname,status) values(
    "nigist@gmail.com",'mar734','nigist','melkamu','regular'
)

```

//Inseting data to class table

```

insert into class (year,section,teacher_id) values(
    "2010",'a',1
)
insert into class (year,section,teacher_id) values(
    "2011",'b',2
)
insert into class (year,section,teacher_id) values(
    "2012",'c',3
)
insert into class (year,section,teacher_id) values(
    "2013",'d',4
)
insert into class (year,section,teacher_id) values(
    "2014",'f',5
)

```

//Inseting data to course table

```

insert into course (course_name,ects,grade) values(
    "Fundamentals of It secutity",7
)
insert into course (course_name,ects,grade) values(
    "Computer Programming",6,A
)
insert into course (course_name,ects,grade) values(
    "distributed database system",5,B
)
insert into course (course_name,ects,grade) values(
    "advanced programming",6,B
)
insert into course (course_name,ects,grade) values(
    "Electronics",5
)

```

//Inseting data to exam table

```

insert into exam (name,description,start_date,exam_type) values(
    "Fundamentals of It secutity","It is about IT
security",'12/09/2021','written'
)
insert into exam (name,description,start_date,exam_type) values(
    "Computer Programming","programming skills",'02/04/2019','lab'
)

```

```
)
insert into exam (name,description,start_date,exam_type) values(
    "distributed database system",'about database
system','03/04/2018','written'
)
```

```
//Inseting data to exam_result table
```

```
insert into exam_result (exam_id,student_id,course_id,marks) values(
    1,2,3,'good'
)
insert into exam_result (exam_id,student_id,course_id,marks) values(
    1,4,3,'very good'
)
insert into exam_result (exam_id,student_id,course_id,marks) values(
    1,1,4,'Excellent'
)
```

```
////Inseting data to class_student table
```

```
insert into class_student (class_id,student_id) values(
    1,2
)
insert into class_student (class_id,student_id) values(
    1,4
)
insert into class_student (class_id,student_id) values(
    1,1
)
insert into class_student (class_id,student_id) values(
    1,4
)
insert into class_student (class_id,student_id) values(
    1,1
)
```

```
////Inseting data to course_teacher table
```

```
insert into course_teacher (course_id,teacher_id) values(
    1,4
)
insert into course_teacher (course_id,teacher_id) values(
    1,1
)
insert into course_teacher (course_id,teacher_id) values(
    1,4
)
insert into course_teacher (course_id,teacher_id) values(
    1,1
)
```

```
//JOIN Query
```

```
SELECT * FROM class NATURAL JOIN exam_result;
```

```
//UNION
```

```
SELECT * FROM student UNION SELECT * class_student;
```

```
//VIEWS
```

```
Select * from student;
```

```
Select * from teacher;
```

```
Select * from course;
```

```
Select * from exam_result;
```

```
//ORDER BY
```

```
SELECT firstname,lastname FROM student ORDER BY firstname ASC;
```

```
//Intersestion
```

```
SELECT student_id FROM student INTERSECT SELECT student_id FROM  
class_student;
```

```
//////////Temesgen Talo //////////
```

```
//////////Id: atr/4254/10 //////////
```