

HIT Academy database system

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Overview:

- 1) (explain)
- 2) (ERD)
- 3) (mapping)
- 4) (SQL code)

1) SRS/explain

We have HIT academy which consists of student who has std_id, name (F_name, L_name),

Gender and age,

Cours which has course_id, name and description,

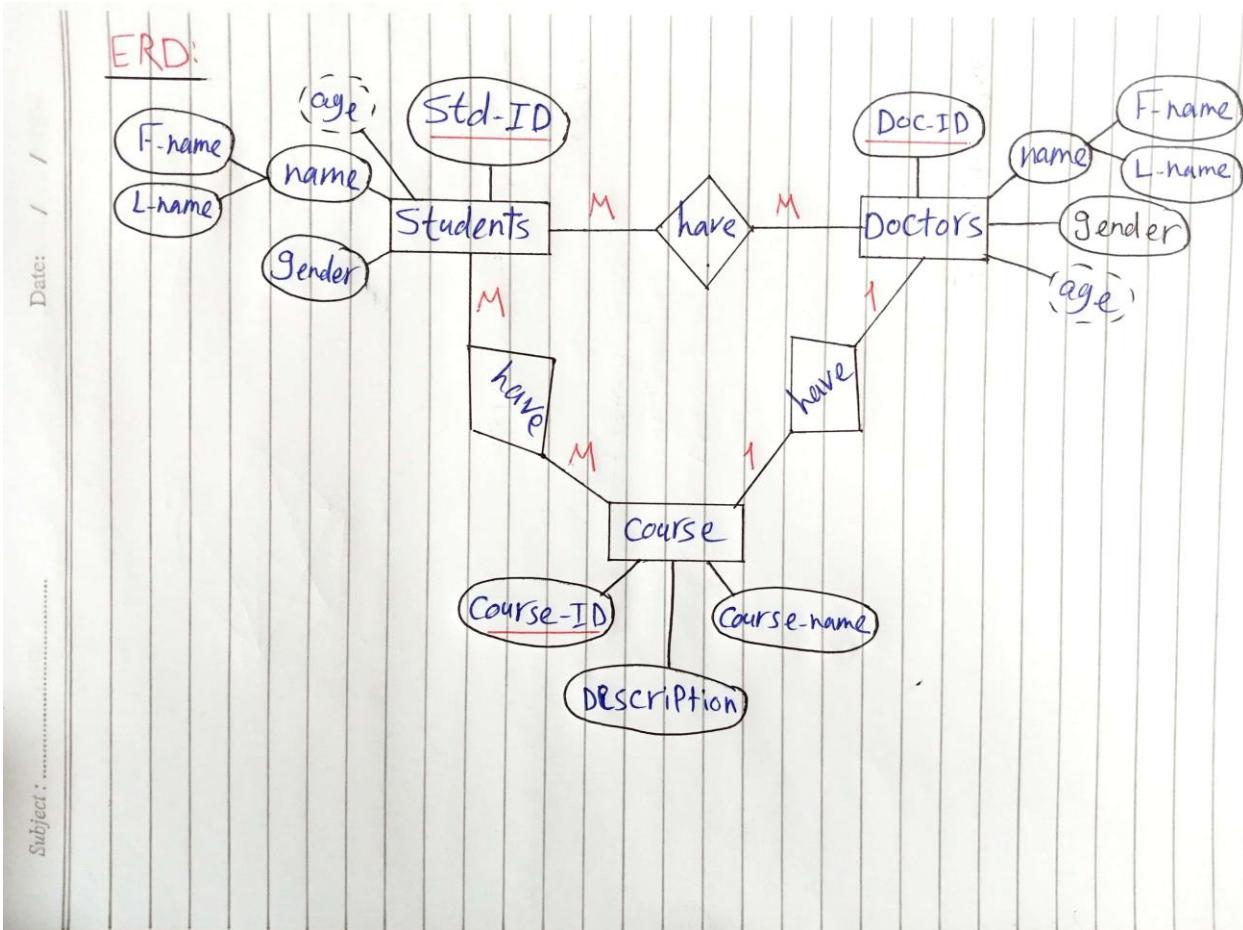
Doctor who has doc_id, name (F_name,L_name), gender and age

Every student has 4 or more courses and every courses may or may not be available to a student.

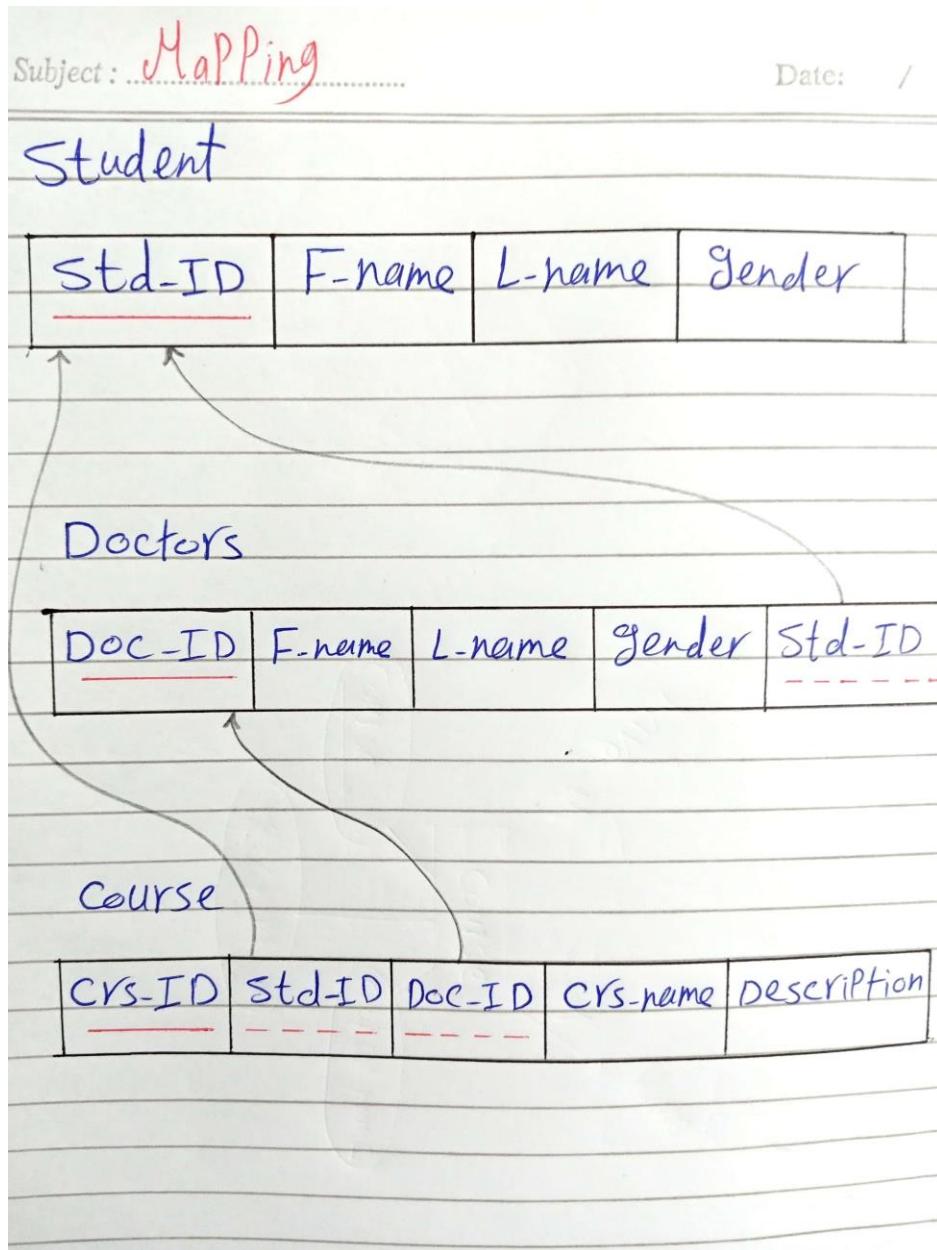
Every student has many doctor and doctor has many student

Every doctor has one course and course available to a one doctor

2) ERD:



3) Mapping:



4) SQL CODE:

Student table

```
create database HITacadmy;  
use HITacadmy;  
create table students(  
    std_id int primary key not null,  
    f_name varchar (50),  
    l_name varchar (50),  
    gender varchar (50),  
    age int);
```

```
insert into students  
values  
(1, 'amir', 'hamed', 'm', 17),  
(2, 'ahmed', 'mohamid', 'm', 18),  
(3, 'mohamed', 'elwan', 'm', 18),  
(4, 'kareem', 'yousef', 'm', 19),  
(5, 'khaled', 'marawan', 'm', 18),  
(6, 'rana', 'arafa', 'f', 18),  
(7, 'karma', 'sameh', 'f', 17),  
(8, 'sondos', 'ashraf', 'f', 18),  
(9, 'noha', 'sameh', 'f', 18),  
(10, 'soha', 'karam', 'f', 17);
```

Doctors table

```
create table doctors(  
    doc_id int primary key not null,  
    f_name varchar (50),  
    l_name varchar (50),  
    gender varchar (50),  
    age int );
```

```
insert into doctors  
values  
(1, 'mohamed', 'ragab', 'm', 25),  
(2, 'zyad', 'elalfy', 'm', 23),  
(3,'eman', 'mohamed', 'm', 22),  
(4,'esraa', 'mohamed', 'f', 23),  
(5,'hadeer', 'mohamed', 'f', 23),  
(6,'shreef', 'elshorbgry', 'm', 50),  
(7,'nagwa', 'mohamed', 'f', 40),  
(8, 'reham', 'mohamed', 'f', 23),  
(9, 'rания', 'moahmed', 'f', 35),  
(10, 'amin', 'elwan', 'm' , 20);
```

Course table

```
create table course(  
    course_id int primary key not null,  
    course_name varchar (50),  
    description varchar (50));  
  
insert into course  
values  
(1, 'DB', 'basic of DB and data models'),  
(2, 'IT', 'basic of IT and computer basics'),  
(3, 'math','math1'),  
(4, 'english', 'basic of EN languag skills' ),  
(5, 'safety', 'basics of workplace safety, risk prevention');
```

Relations

ALTER TABLE Students

ADD doc_id int;

ALTER TABLE Students

ADD CONSTRAINT FK_Students_Doctors

FOREIGN KEY (doc_id) REFERENCES Doctors(doc_id);

ALTER TABLE Students

ADD course_id int;

ALTER TABLE Students

ADD CONSTRAINT FK_Students_Course

FOREIGN KEY (course_id) REFERENCES Course(course_id);

ALTER TABLE Course

ADD doc_id INT;

ALTER TABLE Course

ADD CONSTRAINT FK_Course_Doctors

FOREIGN KEY (doc_id) REFERENCES Doctors(doc_id);