

# ***HIT Academy database system***

*Created by AMIN MOHAMED*

## 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

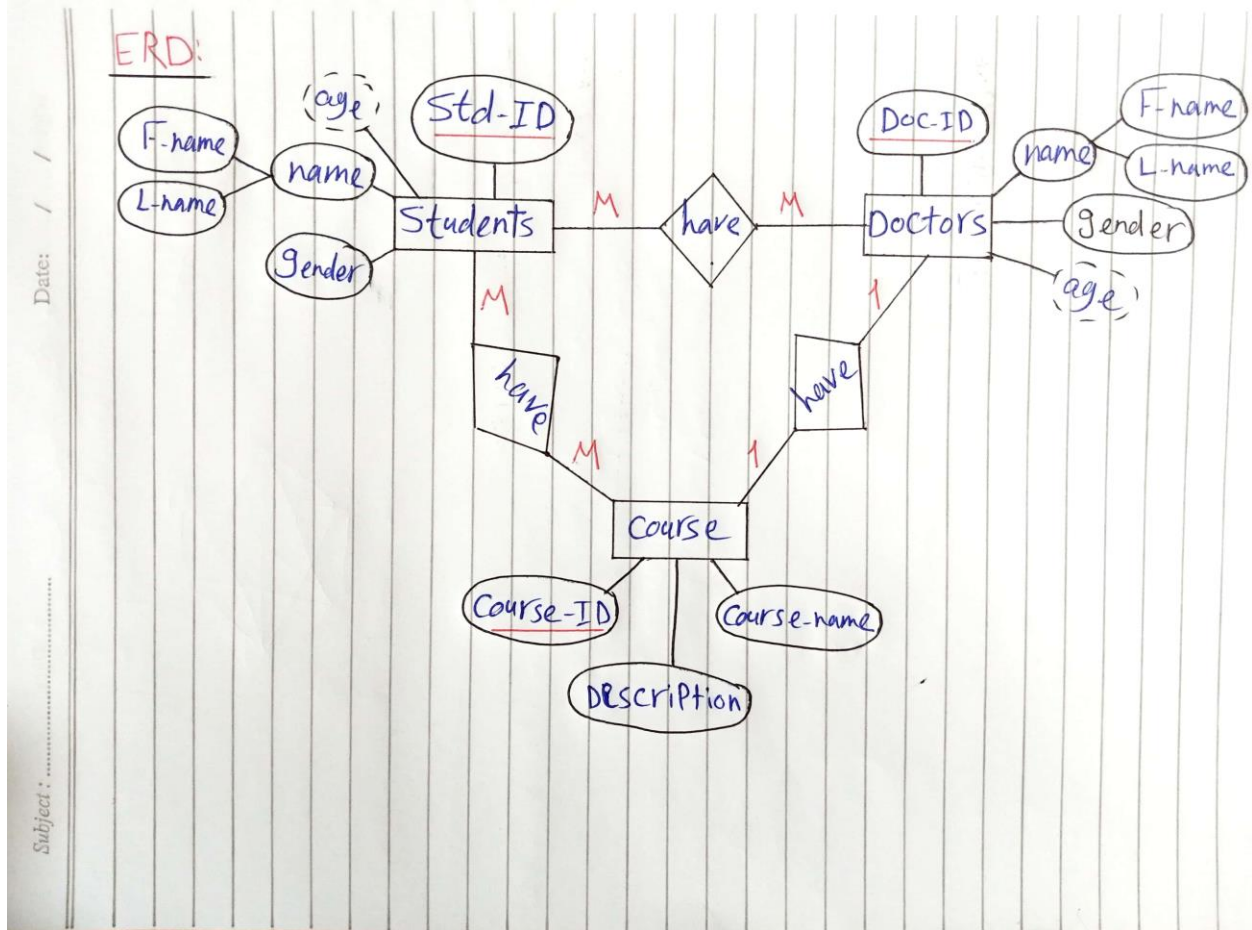
Every student has 4 or more courses and every courses may or may not be available to a student.

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:

Subject: Mapping

Date: /

Student

<u>Std-ID</u>	F-name	L-name	Gender
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Doctors

<u>Doc-ID</u>	F-name	L-name	Gender	<u>Std-ID</u>
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Course

<u>Crs-ID</u>	<u>Std-ID</u>	<u>Doc-ID</u>	Crs-name	Description
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#### **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', 'mohamd', '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', 'elshorbg', 'm', 50),  
(7, 'nagwa', 'mohamed', 'f', 40),  
(8, 'reham', 'mohamed', 'f', 23),  
(9, 'rania', '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);**