**Database Project**

**Educational Platform**

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| **عمر مصطفى جوده عطيه** | **Team Leader** | **Frontend** |
| **محمد مجدي محمد عبدالصادق** | **developer** | **Frontend** |
| **ياسر فارس حسن عبدالحميد** | **developer** | **Frontend** |
| **غاده حسن عبد المنعم محمد** | **developer** | **Frontend** |
| **نورهان حسين ابراهيم حسن** | **developer** | **Frontend** |
| **غاده محمد فتحى حسن فتوح** | **developer** | **Frontend** |
| **كيرلس ايمن جرجس أيوب** | **developer** | **Frontend** |
| **هادى ابراهيم محمد ابراهيم** | **Project Manager** | **Database** |
| **محمد محمود حسن مصطفى** | **Developer** | **Database** |
| **محمد عبدالشافي ابراهيم محمد** | **Developer** | **Database** |
| **مريم محمود السيد عبد الله** | **Team Leader** | **Database** |
| **احمد رمضان السيد علي حسن** | **Team Leader** | **Backend** |
| **احمد سعيد عبدالله دسوقى حسن** | **Developer** | **Backend** |

**Project Brief**

this project aims to make the e-learning process much easier for the users and save a lot of time for them and its database design aims to make the user purchase courses and keep tracking of their progress over the time by handling the database.

**Business Rules**

* Users may enroll in one or more course
* And Courses maybe get enrolled by one or more user
* Courses must have one or more lecture
* And lectures must be assigned to only one course
* Subjects must have one or more courses
* And Courses must be categorized under only one subject
* The enrollment users may keep track the progress of one or more lectures
* And the lecture is being tracked by only the enrollment user

**Database Entities**

* ***Users***The Users entity represent the users who are registered on the database but didn’t enroll (purchase) any courses yet.

**Attributes**

* **Id =>** integer, PK(**Primary Key**), NN
* **Role** => varchar(string) NN, the role if the user (admin or user)  
  Default is user
* **Name** => varchar, NN, the name of the student
* **Email** => varchar, NN, the email of the student
* **email\_verified\_at** => TIMESTAMP, default null
* **image** => varchar,default null
* **created\_at** TIMESTAMP
* **updated\_at =>** TIMESTAMP default null
* **remember\_token => varchar**
* ***Courses***

This entity includes all of info about each course like title, image, price, discount if available

**Attributes**

* **Id =>** INT, **PK**(primary key), NN
* **Title =>** VARCHAR, NN , title of the course
* **Description =>** VARCHAR, NN, Description of the course
* **Image =>** VARCHAR, NN
* **Price =>** DOUBLE, NN, price of the course
* **discount\_type =>** VARCHAR,NN
* **discoun\_value=>** MEDIUMINT,NN
* **max\_discount=>** MEDIUMINT
* **created\_at=>** TIMESTAMP, default null
* **updated\_at=>** TIMESTAMP, default null
* **subjects\_id=> FK**(**Foreign key**) REFERENCES from subjects table **,** NN
* ***users\_courses***

this entity represents the users who enolled to a course at least   
and it’s a link between the two other entities Courses and users

**Attributes**

* **courses\_id=> INT, (**Fk)**Foreign Key** REFERENCES from **courses** table but is the **PK** for users\_courses table, the course id which user is enrolled in
* **users\_id=> INT, (Fk) Foreign Key** REFERENCES from **users** table but it the **PK** for this course
* **lecture\_id=>** VARCHAR
* **progress=>** VARCHAR, NN
* **created\_at=>** TIMESTAMP,
* **updated\_at=>** TIMESTAMP, default NULL
* ***subjects***

this entity represents the categories or subject available on the platform which courses are listed under them

**Attributes**

* **id =>**INT,NN,Unique, PK(Primary Key)
* **name=>** subject or category name
* **created\_at=>** TIMESTAMP
* **updated\_at=>**TIMESTAMP, default NULL
* ***Lectures***

This entity represents the lectures which each course includes

**Attributes**

* **Id=>**INT, NN, **PK**(Primary Key)
* **courses\_id =>**INT, NN, **FK**(Foreign Key) REFERENCES from Courses but it’s the **PK** for this table
* **Title=>** VARCHAR, NN, title of the lecture
* **Description=>** TEXT, NN
* **Link=>** VARCHAR, NN, link of the lecture
* **Image=>** VARCHAR**, NN**
* **created\_at=>** TIMESTAMP,NN
* **updated\_at =>** TIMESTAMP, default NULL

**Database ERD**

