

FINAL PROJECT, Weight - 25%

Due: 11:59pm on Friday 28th October (Week 14)

Develop a database system for an Online Tutoring System by applying the systems analysis and design methodologies.

1. The project should apply the systems analysis and design methodologies, including the planning phase, the analysis phase, the design phase, and the implementation phase. More details are discussed in your weekly tutorial activities.
2. The students are required to produce an Entity Relationship Diagram (ERD) first, and then convert it to a Global Relation Diagram (GRD) and apply the normalisation techniques to 3NF. The GRD should be normalised.
3. The ERD should contain all necessary entities, relationships, attributes and primary keys (PK). The main entities are, but not limited to:

- i. *Student, Parent, Staff, Manager, Course, Subject, Timetable, Tutor, Payment and Bank.*

You are welcome to add more entities if required. You are responsible to create the attributes relationships and primary keys.

4. The students are required to insert enough relevant data to the database system.
5. The database system should be able to answer the following queries:
 - a. How many *students* have enrolled in a particular *subject* in a specific *course*? You should define the *subject* and *course* by your choice.
 - b. Who is the *tutor* of a particular *subject*? Name, ID, address, contact.
 - c. What is the *average, minimum* and *maximum* price of the *units* in a *course*? Give the values and the *subject's* name of average, min and max price.
 - d. List the name of *tutors* and their corresponding *courses* and *subjects* in each *course* that they teach.
 - e. List all *subjects* and their scheduled time and date.
 - f. List the name of all *students* who enrolled in *course*, e.g. "Computer Studies".
 - g. List the name of all *parents* who enrolled their kids in a *subject*, e.g. "Programming" of *course* "Computer Studies".
 - h. List the name of *staff* who work on Thursdays.
 - i. List the name of *parents* whose accounts are not verified by the *Bank*.
 - j. List the total *payment* of each *student*.
 - k. Your choice of query
 - l. Your choice of query
 - m. Your choice of query