German University in Cairo
Media Engineering and Technology
Prof. Dr. Slim Abdennadher

<div align="center">

Databases I, Winter term 2016-2017
Project Description
"Schools' Network!"

</div>

The number of schools in Egypt is increasing every year. It is an important decision for parents to look for the most appropriate school to enroll their children in. Parents try their best to collect information about all the schools. They compare them according to the curriculum, facilities offered by the school, activities, fees, etc.

Therefore, the ministry of education figured out the need for a unified platform where schools can present their vision, curriculum, and services. Every school administrator is responsible for creating a page for the school to present all the corresponding information about the school.

This platform then would allow the parents to easily browse the needed information about schools. This facilitates the process of choosing the school that suits their children. The website should allow the parent to apply for their children in one or more schools. Once the child is accepted in a school, he/she will be considered as an enrolled student. Parents can then interact with their child's school online and follow their progress. Students would have access also to the website where they can view the courses and solve their homework.

You are required to implement a website to the ministry of Education that provides these features to schools and parents. It will act as a portal where both groups can interact with each other.

Project Specifications

The website/portal displays all available schools with their corresponding information. This information include the school name, address, phone number, email, general information, vision, mission, main language, type(national, international) and fees.
Every school can be one or more of the three levels: elementary (grades 1-6), middle (grades 7-9) or high schools (grades 10-12). Therefore, some schools offer two or the three-certification levels. In elementary schools, a specific list of supplies is required from the students, unlike middle and high schools. High schools offer the student some clubs. Each club has a name and a certain purpose. Students can join any number of clubs.

Every level offers certain courses that are taught in this level only based on the grade. For example, Math1 is taught in the elementary schools for grade 1, while Algebra is taught in the middle schools for grade 7. The system should keep track of each course's name, code and description. A course can have prerequisite courses that a student should pass before taking it.

Parents can browse all school information. A parent can apply for his/her children in one or more schools. The system keeps track of the child's social security number (SSN), child's name, child's birthdate, child's age, child's gender. In addition, each parent can register with a unique username and password to follow the children's' performance. The system stores as well the parent's name (first name and last name), contact email, mobile number(s), address and home phone number.

Once the child is accepted in a certain school, he/she is considered to be enrolled as a student in that school. A student can be enrolled to only one school at a time. The school offers every student a username

and a password, by which they can access the courses' pages. According to the student's age, he/she will be enrolled to a certain grade in one level (elementary, middle or high).

Schools have many employees that can be teachers or administrators. The system should save their information e.g. first name, middle name, last name, birthdate, address, email, username, password, salary and gender. Additionally, teachers' years of experience should be saved. Administrators are responsible for managing all the data of the school and posting new announcements. Announcements appear on the school's home page to inform both parents and students with any school updates. They can have a date, title, description and type (events, news, trips ...etc).
Schools usually have some extra-curricular activities for students to enjoy their school lives. Administrators can also create new activities and assign every activity to a certain teacher. An activity has its own date, location in school, type, equipment(if any), and description. Students then apply to join one or more activity.
Teachers differ in their seniority level. A teacher is considered a supervisor (supervises other teachers) if he/she has more than 15 years of experience.

Parents can rate teachers that teach their children. They can also write reviews about their children's' school.

For every course, there is a teacher that teaches this course to some students. The teacher is also responsible for posting assignments for that specific course. Every assignment has a posting date, due date and content. Students can solve the assignments and teachers can view the assignments and grade them.

Teachers also write monthly reports about every student that can be checked and replied to by the student's parent. A report is issued on a specific date by each teacher to a specific student and contains the teacher's comment. The parent can then view the report and reply to it.

Students can post questions they have about a certain course. The system would keep track of these questions, where the teacher would later view and answer them. Both the question and the answer should be saved on the course's page so that other students can later review it.

<u>Note that:</u>
You can add any attributes that you may consider needed for your project as long as they don't contradict with the provided description.