Introduction to Database Systems
Students Guide System

Analysis Phase Report
Team Number: 10

Tutorial: Thursday 8-11   **Number of members: 4**

Team Email: Bassel.Ahmed02@eng-st.cu.edu.eg

Members' Info:

Member Name	ID	Email
Bassel Mohamed Saad Ahmed	1200021	Bassel.Ahmed02@eng-st.cu.edu.eg
Mina Ashraf Ishak Fawzy	1200289	Mina.Fawzy02@eng-st.cu.edu.eg
Mohamed Tarek Abd El Mohsen Heggi	1200895	Mohamed.Heggi02@eng-st.cu.edu.eg
Malek Essam Mahmoud Fahmy	1200479	Malek.Fahmy02@eng-st.cu.edu.eg

Submission Date: 27/10/2022

Brief Description

The main idea of our proposal is to create a reliable and trustworthy environment for university students that contains all the data they may need during their college years. Allowing students to get a glimpse about the different programs, courses, get feedback about the instructors and even get advice from elder colleagues. Instructors can upload a brief about their courses and the courses' content which will allow students to form an opinion about the courses according to their interests, also, having a brief history about courses' grades and past exams would be very helpful for the students. Furthermore, there will be a news feed page for announcements, any recommendations, internships, Q&A [help].

We believe that the best way to implement our idea is by making a WEB APP.

Users List

User	Possible Functionalities
Students	• Registration/login • View Followed Courses/Companies • Add/Delete comment • Follow Course/Company • Request Help • Read in news feed • Add Complaint • Access Internships by Companies
Instructors	• Registration/login • View Courses/Help Requests • Add Course Content • Add Complaint • Read in news feed • Accept Help • Deliver Recommendation/Add Summary
Administration	• Registration/login • View College Hierarchical Data • Add/Remove Coordinators/instructors • Remove Articles/Comments • Handle Complaints • Upload Grades Statistics • Post Announcement • Upload Internships

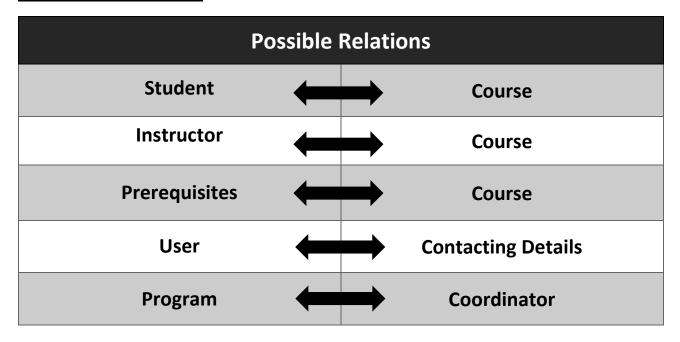# Functionalities/Users Description

We have three primary users: **Students, Instructors, System Administrators**. Each is allowed the basic operations of **Registration/login**, besides the unique functionalities for each user. For **Student**, he can **Request Help** regarding a certain course or practical life issue like Internship Recommendations and so. Student can **Follow Courses/Companies or view them** whether he takes them or would like to take them in the future. He can also read **the news feed** that contains the latest news about courses/companies that he is following. He can **comment on a certain article or a certain course** requesting for more info, adding his opinions about courses, and even offering for help for example. He is allowed to **add a complaint (which is like Facebook Report)** in case any violation of ethical content. He can also have **Internships that suits him.**

Another thing would be our **Instructor** User. He can **Add Course Content** for courses that he teaches. He can **View Courses** or **Help Requests** related to the courses he teaches or his field. He can **Add Summaries** or **Deliver Recommendations** for courses. Recommendations might be about what students need to be familiar with or revise before course. He can, of course, **add a complaint** about a comment. He also **has a news feed** that he can read filled with possible mentions on his articles and so on.

Finally, our **Administrator**. The Administrator ensures the system data reliability. One of them is to **Add/Update/Delete Instructors** (if one stopped teaching or a new one is added). This user has the ability to view all programs data including staff and students via **View College Hierarchical Data.** This user can also **Administer Articles/Comments (Adding and Removing)** in case of ethicality violation. This user is responsible for **handling complaints** which come from different users and to administer the system. It also uploads **Grades Statistics** for courses/programs over past years. The Administrator can also **Post Announcements** that everyone in the college can see. He can also upload possible **Internships** to help Students get sufficient training.

This is a short brief of our different users and functionalities that are included in our system with a little explanation of each. Now we move to relationships and entities.

Tables & Relations

Possible Relations		
Student	⬅➡	Course
Instructor	⬅➡	Course
Prerequisites	⬅➡	Course
User	⬅➡	Contacting Details
Program	⬅➡	Coordinator

Entities List

Possible Entities	
Students	Articles
Courses	Colleges
Instructors	Postgraduates
Programs	Projects/Researches
System Administrators	Working places/Companies
E-learning Materials	Contacting Details

Entities Description

Of course, In our student guide system we would have entities for **Students**, **Courses**, **Instructors**, **Programs** and **Administration (users who manage the system)**. **E-learning material** will represent the course content (slides, references, sheets…etc.). Also, in our system we admire to make an archive of all previous **projects and research papers** and categorizing them according to their work field, so we **needed** to make an entity for projects and research papers.

In addition, we thought that it would be helpful for undergraduate students to add a **postgraduate** student entity to store the working places, and research papers. All of these data can help in guiding the students.

Moreover, to allow communication between system users, we created an **Article** Entity. Each student can publish an article. These articles also can be used as a way to ask others - students and doctors - for help, asking for recommendation or giving advice. User can also use article as a reply to another article. To make it short, in each article we should store the content, author, Time stamp, and others.

No doubts that all above functionalities and entities can be also used by multiple colleges. That's why we added a **college entity** to make each community as consistent as possible.

Lastly, for each user, we can store its **contacting details** as it would be helpful for the administration.