GERMAN UNIVERSITY IN CAIRO
MEDIA ENGINEERING AND TECHNOLOGY
ASSOC. PROF. MERVAT ABUELKHEIR
ENG. NADA IBRAHIM   ENG. HADWA PASHA
ENG. NOHA HAMID

Advanced Computer Lab (CSEN 704/ DMET 706)

Winter 2022

Online Learning System

Project Grade: 85%

Report Grade: 10%

Sprint #1 Deadline: 29/10/2022 11:59pm

Sprint #2 Deadline: 02/12/2022 11:59pm

Sprint #3 Deadline: 30/12/2022 11:59pm

Please read the following instructions carefully:

- Any case of **cheating**, will result in a zero.

- It is **YOUR responsibility** to ensure that you have:
  - Read and understood everything in the description. This description contains **ALL** the information you need to know about the project.
  - Found a team to work with.
  - Submitted before the deadline.
  - Submitted the correct file(s) on GitHub.
  - Shown your individual contribution on GitHub.

- Good luck!

1 Theme

The theme of the project, is to create a complete Online Learning System. An Online Learning System is a web application through which individuals can attend pre-recorded courses online. Existing web applications include but are not limited to Coursera, Udemy, LinkedIn Learning, Great Learning and Udacity.

2 Overview

This project will follow the Agile Methodology; meaning it will be split into Sprints, with each Sprint lasting a set amount of time and a fully functioning version of the project with the specified System Requirements should be submitted and will be evaluated.
There will be 3 Sprints with the following lengths:

- Sprint #1: 2 weeks

- Sprint #2: 2 weeks

- Sprint #3: 3 weeks

At the end of each Sprint, you must provide a fully working version of your software with **ALL** of the System Requirements for that Sprint.
Please note the following:

- You are allowed to work ahead; however, you will not earn extra points for completing any requirements for a later Sprint.

- You will be penalized for not completing a requirement for a specific Sprint.

- As with the Agile Methodology, you will need to complete any unfulfilled requirements in the next Sprint since other requirements will be dependent on the ones that have not been fulfilled.

- You are allowed to use your imagination when creating this web application. The only limitation you have is that you **MUST** use the **MERN Stack** (MongoDB, Express JS, React JS and Node JS). You may use more technologies but you may not use less.

3 Objectives

- Learn how to properly use the Agile Methodology to plan out a project and develop the software.

- Learn the process of following a given set of System Requirements to develop a software.

- Learn to research and master the use of the MERN Stack.

- Learn how to work together as a team on GitHub.

4 Team Support and Evaluations

Please note the following:

- You should already have your teams ready by now. Remember, there will be no randomization of teams, consequently those who cannot find teams to work with will work **alone**.

- In order to find a team to work with, individuals should use Piazza to find others who have no teams.

- Each team will have a repository on GitHub created for them under their team name and will be assigned a product manager (TA) to refer to when they are having problems and set appointments with during evaluations. The product manager names are all posted in the PDF named **ACL Winter 2022 Teams**.

- All office hours must be requested by email to ensure giving each team a fair amount of time. Be sure to only contact your assigned product manager.

- Should conflict arise within teams, it is the Scrum Master's responsibility to ensure any and all tasks are divided equally and fairly among team members and that every team member does their work.

5 Deliverables

The System Requirements are all outlined in the Excel sheet named **Online Learning System Requirements** under the **Functional Requirements** tab, with each requirement labeled with the Sprint in which is should be completed.

We will create your repositories for you and they will be named after your team names. Each team should clone their corresponding repository.

We will grant the Scrum Master access to the repository and it is his/her responsibility to grant the rest of his/her team access to it.

You must also have/show the following in your repository:

- DO NOT delete the .gitignore file.

- README.md file. This will be your project report and is worth 10%. The following link to a README File Template will be useful in guiding you in how to write a proper README file. It also contains the template you **must** use. Short or incomplete README files will get a ZERO. Useful online tools you can use to create a proper README file include but are not limited to readme.so and Dillinger.io. **This report will be evaluated along with your Sprint #3 requirements**.

- A text file containing all the team members who took part in the project as well as the tasks that need to be done and who each task is assigned to should be provided at the beginning of each Sprint. You may create 3 separate text files with the assigned tasks for each Sprint.

- All commits made by different team members showing the tasks they worked on must be clear and visible.

6 Grading Criteria

The grading criteria of the entire project are all outlined in the Excel sheet named **Online Learning System Requirements**. There are 60 Functional Requirements in total and 2 Non-Functional Requirements.

The Functional Requirements will be graded based on the following criteria:

- Works well on front-end and back-end and all changes are reflected on on the database: this earns you full credit for the requirement.

- Attempting to implement the requirement as code but it does not reflect on database and/or front-end: If it is implemented correctly in the back-end but there are issues with the front-end connections, you will get partial credit. If you attempted to implement it but it does not work at all in the back-end, you get no credit.

- Not implemented at all: you get no credit.

You will be given the chance to redeem any unimplemented or incorrectly implemented requirements in later Sprints. However, do NOT attempt to leave too many requirements until the final Sprint as you will be overwhelmed with the amount of work to be done.

The Non-functional Requirements are UI (user interface) and UX (user experience), shown under the **Non-functional Requirements** tab in the in the Excel sheet named **Online Learning System Requirements**. Their evaluations will be **purely subjective**. You will not be graded on the UI and UX until **the evaluations of Sprint #3**.

7 Evaluations

Evaluations will be conducted in the week following the submission date and **ONLY ON THAT WEEK**. Submission dates are **final** and will be monitored on GitHub. You will be required to pull your entire repository at the beginning of the evaluation to ensure only the latest version of your project on GitHub is being evaluated.

ALL team members MUST attend the evaluations. Missing team members/ teams who do not show up for any of the evaluations will receive a **ZERO for that**

entire Sprint. This is nonredeemable and no excuses will be accepted unless under very specific circumstances and emergencies **with acceptable proof**. Therefore, DO NOT under any circumstances only attend the final evaluation. You WILL receive zeros for Sprint #1 and Sprint #2