German University in Cairo
Media Engineering and Technology
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Advanced Computer Lab (CSEN 704)
Advanced Media Lab (DMET 706)

Winter 2023

El7a2ny: Virtual Clinic and Pharmacy

Project Grade: 85%

Report Grade: 10%

Sprint #1 Deadline: Thursday 12/10/2023 11:59pm

Sprint #2 Deadline: Sunday 12/11/2023 11:59pm

Sprint #3 Deadline: Tuesday 12/12/2023 11:59pm

Report Deadline: Tuesday 12/12/2023 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 virtual clinic with a pharmacy that caters to this clinic and its patient. El7a2ny is a software solution for clinics, doctors, pharmacists and patients alike to streamline and automate the interactions between patients, medical doctors and pharmacists. This encompasses everything from trying to find a doctor, scheduling meetings with doctors, conducting on-premise or online meetings, getting prescriptions, getting reminders for follow-ups, accessing medical history, and ordering medication that was prescribed.

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.

The System Requirements along with the sprints they belong to are all outlined in the Excel sheet named El7a2ni System Requirements under the Virtual Clinic Functional Requirements and the Pharmacy Functional Requirements tabs, with each requirement on both tabs labeled with the sprint in which it should be completed. The non-functional requirements are also on the same Excel sheet under the Non-functional Requirements tab. All the grading is also outlined in the Excel sheet for EVERYTHING.

There will be **3 sprints** with the following lengths in duration (not including evaluation weeks and midterm weeks):

- 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.
Note the following:

- You are allowed to work ahead; however, you will not earn extra points for completing any requirements for a later 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.
- There are requirements for each sprint **from each of the virtual clinic and the pharmacy systems so be sure to check both**.

- In Sprint #1 you will be **penalized for not completing any of its requirements**.
- In Sprint #2 you are allowed to postpone a **maximum of 5 requirements** onto Sprint #3. You will be penalized for more than 5 requirements.
- 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.
- Learn how to integrate 2 functioning systems and merge them into 1.

4 Team Support

Please note the following:

- Try to use Piazza to ask any questions regarding the project. Piazza is monitored by all the TAs so you will receive help faster. Additionally, your peers can also help in answering your questions.
- You should already have your teams ready by now. Remember, there will be no randomization of teams, consequently, those who cannot find enough team members to work with will work **alone** with the full load of the entire project.
- If you cannot find a team to work with, individuals should use Piazza to find others who have no teams.
- Each team will be assigned a product manager (TA) to refer to for **advice regarding the project and set appointments with during evaluations**. The product manager names with their corresponding teams will all be posted on the CMS.
- All office hours **MUST be requested by EMAIL** to ensure giving each team has a fair amount of time and to ensure the product manager's availability. **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.
- Scrum Masters **cannot and will not be changed mid-semester** so pick your Scrum Masters carefully.

5 Github Repositories

- 2 repositories will be created for each team; 1 for the Virtual Clinic System and 1 for the Pharmacy System.
- **Every team member MUST have a contribution on GitHub** on **at least ONE** of the 2 repositories. Zero contribution on both repositories means receiving a zero in the sprint being evaluated.
- All commits made by different team members showing the tasks they worked on on the repositories must be clear on Github.
- You may use Github Desktop if you find it easier than using Git commands. In case you prefer the Git commands, a guide with useful Git commands is available on the CMS.

6 Evaluations

- In Sprint #1 and Sprint #2, the Virtual Clinic System and the Pharmacy System will each be **evaluated on separate laptops**; 1 laptop with the Virtual Clinic System and 1 laptop with the Pharmacy System.
- You are free to split your team to work on whichever system however you please and in whatever roles (FE vs. BE or full stack).
- In Sprint #1 and Sprint #2, any 2 team members that can ensure the smooth running of both systems must attend the evaluations. They do not have to be the same in both sprints.
- In Sprint #3, the entire system will be evaluated on 1 laptop, showcasing your integration of the 2 systems, and **ALL** 8-10 team members **MUST** attend the Sprint #3 evaluation.
- In Sprint #3, any missing team members or teams who do not show up to the evaluations will receive a **ZERO for that entire sprint despite any contribution on Github they may have**. This is nonredeemable and no excuses will be accepted unless under very specific circumstances and/ or emergencies **with acceptable proof provided to Dr. Mervat Abuelkheir**.

- The evaluation of your system's UI/ UX will be based on the **subjective opinion of your assigned project manager** so be sure to consult with them on any UI/ UX advice you need.
- You will not be graded on the UI/ UX until **the evaluations of Sprint #3** but you will need a functional front-end to get evaluated in Sprints #1 and #2.
- Evaluations will be conducted in the week following the submission date and **ONLY ON THAT WEEK**; no exceptions will be made.
- Submission dates are **final** and will be monitored on GitHub for all repositories. 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.

7 Deliverables

We will create 2 repositories for each team and they will be named after your team names and the part of the project this repository should have (e.g. clinic or pharmacy). Each team should clone their corresponding repositories.

We will grant the Scrum Master access to the 2 repositories and it is his/her responsibility to grant the rest of his/her team access to them.

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

- 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 submitted with your Sprint #3 requirements**.
- **[OPTIONAL]** 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 system for each sprint.

8 Grading Criteria

The grading criteria of the entire project are all outlined in the Excel sheet named **El7a2ni System Requirements**. Also note the following:

- The Functional Requirements will be graded based on them working well on front-end and back-end and all changes are reflected on on the database. This **GIVES YOU FULL CREDIT** for each of the complete requirements.
- Attempting to implement the requirement as code but it does not reflect on the database and/or front-end or not implementing it at all **GIVES YOU NO CREDIT** for the incomplete requirements.
- The Non-functional Requirements are UI (user interface) and UX (user experience), shown under the **Non-functional Requirements** tab in the Excel sheet named **El7a2ni System Requirements**. Remember that their evaluations will be **purely subjective**.
- Projects with exceptional UI/ UX will receive a **BONUS**. The projects receiving this grade will be chosen **AFTER Sprint 3 evaluations are complete** (NOT DURING) and will be agreed upon by ALL TAs and the Dr.
- Scrum Masters who properly manage their teams will receive a **BONUS AFTER Sprint 3 evaluations are complete** based on the assigned product manager's evaluation of their management and handling of the team.