CME4414 Term Project

A web application is expected to be developed within the scope of the project. First of all, the project topic and web technologies to be used should be determined. The design, implementation and publication of a web application is expected in the term project. You can choose your own topic. You will analyze, design, implement and publish your project.

Expected from your project
- Using of web development technology(languages, tools, frameworks, etc)
- Server-side programming
- Responsive web design
- Structure, framework architectures
- Web service (use, service)
- Storage, database
- Publication
- Security(privacy, authentication, ..)
- Using Github

Topic & Technology Selection
Due Date: 19.03.2019
Identify the topic and technology for the web application you will develop. Describe your project briefly. Specify which Web development tools languages and frameworks to use. Explain technology you use to store data. Also indicate briefly why you selected these applications.

Technology Research & Requirement Analysis and Specification Report
Due Date: 26.03.2019
Requirements analysis in systems engineering and software engineering, encompasses those tasks that go into determining the needs or conditions to meet for a new or altered product or project, taking account of the possibly conflicting requirements of the various stakeholders, analyzing, documenting, validating and managing software or system requirements.[1]

Analysis the system requirements depends on who benefits from the system or who operates the system. In this scope, explain your goal and project topic. List the business rules/requirements of the system.

System Design
Due Date: 09.04.2019
Design your system based on the requirement analysis and report processes (data entry, controls, and constraints), data (storage, database) and interface. Draw the following diagrams (only two of them) to represent the general view of your project.
- data flow diagram
- sequence diagram
- use case diagram

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its process aspects. A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. [2]

A Sequence diagram is an interaction diagram which shows how objects operate with one another and in what order.

A use case is a list of steps, typically defining interactions between a role and a system, to achieve a goal.

Presentation
Due Date: 16.04.2019
The presentation should include the technology you will use in your project. You should specify which tools, frameworks you will use for the project.
In brief the presentation should include:
- Detailed description of tools, language, frameworks, .. to be used
- Examples of using these technologies
- A brief description of the topic you selected
- Diagrams of your project.
- ….

Final Upload & Code Control
Due Date: 14.05.2019

Develop and implement your project based on the design document and selected technology. Operations of all user types should be implement the based on selected structure/architecture. The project will be developed using selected languages. Design web service/services and its parameters and write the code of your web service/services.

Report should include
- Project description
- Interfaces
- Database diagram
- Output of your web service (xml/json format)
- Structure/ architecture schema
- General schema of your project
- Detailed diagram of your project (with web service)
- Security (privacy, authentication, ..)
- Screenshots of Github in different times

[1] Kotonya, G. and Sommerville, I. 1998. *Requirements Engineering: Processes and Techniques* Chichester, UK: John Wiley and Sons.

[2] Bruza, P. D., Van der Weide, Th. P., "The Semantics of Data Flow Diagrams", University of Nijmegen, 1993.