Project Description and Design

Introduction

An important part of this course revolves around applying the concepts discussed in class in the implementation of a project of your choice. The project must comply with the requirements discussed in class. At this point you should have a working local development environment that deployes and connects to a remote AWS Web server or Heroku and a remote AWS MySQL instance or a Heroku MySQL database. It is time to get started working on the implementation. All your code must be available on github.com (or equivalent) and all documentation must be available from your code repository. Name your repository based on your course, semester, year, and team name, e.g., cs5200_spring2018_the_monkeys. If the instructor or TAs have provided a repository, then use that instead. Weekly updates must be in the form of a wiki on the code repository. The first two tasks will be to describe the scope of your project and then provide a preliminary design. These tasks are described below. This document is also available online.

Project Description

In a wiki accessible from your code repository (e.g., github.com has a wiki for each repository), create a web page called ***Project***. Provide a 300 to 500 word description of your project. Include a ***problem statement***, a high level description of your ***proposed solution***. Describe at least ***3 potential domain objects***. Describe at least ***3 potential human users*** for your domain. For each human user, list at least ***3 goals the user could accomplish*** using your Website. For each human user, list at least ***2 relations with other users***. For each human user, list at least ***2 relations with domain objects***. For each domain object, list at least ***2 relations with other domain objects***. Visit programmable web, or similar API repositories, and research an API that might interest you and be used as part of your solution. If you can't find an API of interest, search the web for an API for a domain of interest. In 100 to 200 words, describe how the API will be used in the project.

Project Design

In a wiki accessible from your code repository, create a web page called ***Design***. Using a UML tool, create a ***class diagram*** that captures ***users***, ***domain objects***, and ***relations between users***, between ***users and domain objects***, and ***between domain objects***. Here are some free UML tools: Visual Paradigm, Lucid Chart, UMLet, Violet UML

Class diagram should include:

1. Cardinality
2. Class(es) modeling user(s)
3. Class(es) modeling additional user roles
4. Class(es) modeling domain object(s)
5. At least one one to many relation
6. At least one many to many relation
7. A relation between users
8. A relation between domain objects
9. A relation between users and domain objects

Using a UML tool, create a sequence diagram(s) that captures the interaction between:

1. Users to users
2. Users to domain objects
3. Domain objects to domain objects
4. System to API

Embed the UML diagrams in your ***Design*** wiki page providing a description of your design.

Deliverable

As a deliverable, submit a link to the code repository. TAs will visit the repository and review your Project and Design pages on the wiki. This is a team assignment and there will be only one submission per team.