ECE444 Software Engineering
Project 1: Web Application Development

Milestone 4: Design & Implementation

Learning Goals

- Start to structure your web application
- Start to implement high priority user stories in your project
- Following good coding practices
- Fill in the peer evaluation sheet
- Mid-term presentation

Deliverables

1. Group Task

After Milestone 2 and 3, you have collected and documented the functional and non-functional requirements of your Chef Co-Pilot project. Also, you have walked through the book "Flask Web Development: Developing Web Applications with Python" of Chapter 1-5, played with the hello-world example, and dockerized it (Lab 4&5). Now it is a good time to start to implement your project and keep on learning by doing.

Please read Chapter 7 – "Large Application Structure" of the Flask book, and play with the example if you need to get a sense of one of the efficient ways of organizing large size flask web applications. No need to be perfect in the first place, you will refactor the code and clean the code every now and then.

Sort the use cases and user stories in your work backlog, and start to develop the items that have the highest priority. Here are some references you might find helpful (feel free to explore the tools you are comfortable with):

- https://blog.zenhub.com/how-to-use-github-agile-project-management/
- https://github.com/features/project-management/
- Product Backlog (ref link)

Important: for each user story, estimate the time you need to complete the task, and record how long it actually took (We will need this information in the final report).

2. Group mid-term Presentation (5% of final marks)

Slides submission due: 10/25/2020 Sunday 11:59pm EST

The team will be required to provide an in class presentation (or a video if all team members are not in the Toronto time zone) of a summary of the groups project requirement and current progress. You will have 8 minutes to present and 2 minutes of question and answer to follow.

Presentation content deliverables:

1. Slide number is 'MUST HAVE'
2. (~2min) The overview of your product backlog, and briefly summarize the complete or ongoing items in the past sprint
3. (~3min) Walk through 1 interesting requirements (use cases) collected during the requirement elicitation process beyond the information that exists in the original project description, also present the corresponding user stories, UI design, etc.
4. (~2min) Brief summary of the project architectural design and justify it.
5. (~1min) Brief summary the remaining findings in one slide (reflection of the process, what was good, what need to be improved of your teamwork)

Evaluation:

- 1-2 Presenter(s)
  - Does a reasonable job, clear voice, good coverage of material, proper time management, etc.
- Non-presenting Team members answer "significant" questions
- Clear support of all team members visible

Take Away points for team

- Overtime (A factor times the number of extra slides)
  - Faculty forced to stop team presentation
- Slides have issues
  - No slide numbers or not clear
  - Hard to read slides
    - Too much information on a slide
    - Two small a font (min 24 font)
    - Colors are unreadable
  - Poor writing (Grammar, Spelling, etc.)
- Presentation does not cover expected topics

3. (Individual) Contribution Report

Report submission due: 10/19/2020 Monday 11:59pm EST

Each team member lists the individual sections that he/she was responsible for Milestone 4.
Including: documentation, management, coding, code review, presentation, etc.

Evaluation (50pt):

We will evaluate your contribution individually and give marks. (10%)
Detailed rubric will be released separately soon.

- Management and group work, development process: 25pt (based on peer-evaluation)
- Code quality, following best practices: 15pt
- Code review participation and quality: 10pt

Reference:

- Best Practices (BOBP) Guide for Python (https://gist.github.com/sloria/7001839)
- PEP 8 -- Style Guide for Python Code (https://www.python.org/dev/peps/pep-0008/)

- Code Review Best Practices
  (https://medium.com/palantir/code-review-best-practices-19e02780015f)

4. (Individual) Peer Evaluation

Evaluation Excel submission due: 10/19/2020 Monday 11:59pm EST

Naming format: PeerEval_Midterm_[GroupNumber]_[FirstnameLastname].xlsx
example: PeerEval_Midterm_Group21_ShuruiZhou.xlsx

Each student must individually complete and submit their own peer grading form. We are interested in your views of how well you and your teammates worked on the first project. Please answer the questions honestly and only in response to project #1.

The answers (just like your grades in this class) are treated confidentially and will not be shared with others. Please be honest, and reflect on the overall performance of yourself and your peers -- not just on a single event during the timeline of the first project.

5. (Individual) Feedback or question to other teams (5%)

Please provide constructive feedback and ask good "significant" question(s) to other groups after watching the presentation. You will write responses to the questions for your team in the next milestone report.

We have 18 groups in total (group 1-11, 14-20)

- If your group number <= 9, comment on groups 10-20
- If your group number >=10, comment on group 1- 9

Submit all your questions on Quercus by 10/30 Friday at 11:59pm EST

Examples:

Team Number	Question or constructive suggestions for the team (2 per team)
1	e.g. How to collect the data for [...]? Maybe the expiration information can be shown on the notification directly, then the user doesn't have to click it?
2	In the second chart on slide 8, did you consider that [...]?
3	If there are too many constraints on recommendation, the system would drop constraints. However, how do you decide which constraints to drop? What if the constraint you choose is important to the user? I think it is better to [...] Is the feature of voice recognition out of the scope?
...	...