COMP 433: Term Project

PHASE 1: Team Formation and Business Selection

Revision 1

Due on March 15, 2021 at 2:00 PM

20 Points (5% Overall)

1 Term Project Overview

The software engineering class term project is designed to provide students with an opportunity to apply theoretical knowledge gained through the class into real-world setup. The term project is based on team work. Each team will be asked to select a business application, distill the requirements, analyze and model the requirements, architect the application, and finally present insights to the class. Besides team work, each team member will be individually assessed via individually assigned tasks and will be asked to provide individual reflection on teamwork and term project experience. Specifically, the term project is build around the following learning goals:

- Holistically apply software engineering methods in the context of a real-world problem, including process, requirements, and architecture.

- Design an appropriate infrastructure for an own business project.

- Understand how to distill, analyze, and model requirements and make a decision about the feasibility of a proposed task.

- Discuss architectural design and patterns suited for a business application and understand how to reflect the proposed design into modeling requirements.

- Identify process issues and suggest improvements in real-world projects, including communication, collaboration, tooling, quality assurance, formal and informal rules and policies.

- Coordinate within a team and adopt practices for efficient teams.

- Divide and schedule work within a project.

- Discuss how agile practices affect development.

- Discuss business concerns and business models of software development.

2 Phase 1: Team Formation and Business Selection (0 points)

This phase is split into two main tasks and one deliverable.

2.1 Task 1: Team Formation

Category: *Team Task*

In this task, you are required to form a team of 4-5 people *within the class*. Each team must select a person to serve as their **team leader**. A *team leader* is someone who oversees the functionality of the team by providing guidance and instruction and be responsible for:

- Overseeing all activities within a team.

- Deciding how to approach tasks and develop a plan to accomplish them.

- Distributing information to team members, stakeholders, and instructor.

- Keeping track of and structuring various tasks and documents.

- Determining the goals that members will work toward.

2.2   Task 2: Business Selection

Category: *Team Task*

In this task, your team's goal is to identify the best **three** preferences from the business ideas listed in Table 1. Note that each listed business idea requires a *web-based application solution* or a *smart phone app*. Start by researching the suggested business ideas with an eye towards making an informed decision about which are the best **three** business preferences your team is interested to tackle. As examples, consider: the type of software, the number and types of features and requirements you might address, and how complicated it is, as well as the larger context in which the software operates. The type of information you collect can vary depending on how your team makes this decision. However, you should justify that decision by grounding it in facts about the best three business ideas your team would consider.

No.	Business Info
1	**Mobile Telehealth Medical Service:** Book Appointments, physician and/or psychiatrist video call, physician live chat, on-demand lab tests, and follow-up care. **Examples:** *Ember Medical, MDLIVE, Lemonaid, LiveHealth, PlushCare*
2	**Carpooling/Ridesharing Service:** Hitching a ride with few others to save financial costs. **Examples:** *Uber, Lyft, Via, Scoop, Bridj*
3	**Babysitting Service:** Whether you are searching for a one-and-done sitter or a long-term nanny to watch the kids full-time, using a babysitting app can save you a lot of time and frustration. **Examples:** *Sittercity, UrbanSitter, Care.com, Au Pair in America, Helpr*
4	**Crowdsourced Package Delivery Service:** A package delivery service that leverages networks of local, non-professional couriers to deliver packages to customers' doors. **Examples:** *WeDeliver, Careem*
5	**Comparison Shopping Service:** Find the best bargain whether you are doing your shopping online or in a store. Scan or search for items and see how much they are in store and online. **Examples:** *Google Shopping, PriceGrabber, Shopzilla, BuyVia, ShopSavvy, Camelcamelcamel*
6	**Stock Trading & Investing Service:** A stock trading app for entry-level investors. **Examples:** *Robinhood, Webull, moomoo, Firstrade*
7	**Freight Quotation Service:** Ship your freights from different locations around the world using our website or app to find cheapest quotations. **Examples:** *Freightos, FreightPOP, Freightview, CargoWise, GoFreight*
8	**Bills Payment Service:** Pay your bills online anywhere you are. The app allows you to instantly inquiry about your bills, and manage and pay your bills easily and safely. **Examples:** *eFAWATEERcom in Jordan*
9	**Home Maintenance Booking Service:** An on-demand platform that connects the service providers with customer to provide home maintenance service at competitive level of price and quality. Choose a service provider by reviews, skills, and price, schedule when it works for you, and finally, chat, pay, tip, and review. **Examples:** *TaskRabbit, Thumbtack, Ajeer*
10	**Online Tutoring Service:** The tutoring service helps you get tutoring whenever and wherever you need it with thoroughly qualified tutors. The tutoring service allows students and tutors to participate in video tutoring, manage their accounts, send and receive messages, and manage appointments. The tutoring could be conducted on one-to-one or group basis. **Examples:** *wyzant, skooli, Varsity Tutors, Abwab*

Table 1: List of suggested businesses

2.3   Phase 1 Deliverable

Each nominated **team leader** is required to submit a **Phase 1 report** that consists of the following sections:

1. The Phase 1 report should be submitted as a single PDF file named **TeamName-Phase1-Report.pdf**

2. A section on **Team Formation** that includes the following details:

   (a) Suggested name for the team.

   (b) Team structure and members along with their university ids and any relevant experience.

   (c) A short description of the team management strategy that includes: how the team will meet and how often, and how the team will make decisions.

3. A section on **Business Preferences Selection** that lists three business preferences. Each business preference is accompanied by a brief description summarizing the relevant characteristics your team considered when making the selection. Include at least a brief description of the business context (what it does, who uses it, etc). Explain the criteria your team used in selecting it over any others. Note that first preferences will be given to the team that replies earlier, as well as the understanding of the business context and problem domain. Any relevant experience would be a plus.

Report Writing Style: It is important to have a clear structure to the submitted report. Headings and subheading are particularly helpful in a report as they act as signposts for the reader. The style of report should be concise, giving precise detail. Flowery language or vague terms should not be used. Data may be presented as charts, graphs or tables, if appropriate.

NOTE: *If you are not able to submit* **Phase 1 report** *by the specified deadline, please consider dropping the course. You should be pro-active in approaching other students and forming your team, do not expect others to approach your or do it for you.*