Customer Requirements Preparation

Goals
- Apply various tools and agile principles utilizing concepts (user stories, behavior-driven development) to build quality software.
- Prepare to gather, critically analyze and evaluate qualitative information to produce a SaaS app.

Effort: Individual CS3300 Academic Integrity
Points: 20 pts
Deliverables: As separate Word or pdf files (NOT ZIP FILE) include the following documents
- Document containing answers to questions
- Interview Worksheet

Description

Explore how to do qualitative research to define a problem statement and gather information from stakeholders to develop requirements and acceptance criteria using Agile approaches.

Base Requirements for App Project

You will come up with an idea of an app but **your app should have at least two different stakeholders and must**
1. One stakeholder: Requires a login with a username and password to
    - Create a new item
    - Edit item
    - Remove item
    - Think about what the first item is that will be created.
2. Another stakeholder: Should be able to view items without logging in
    - Display condensed list of items created on one page
    - Display detailed information about each item individually
    - Should have at least three attributes associated with the item. **For example** in portfolio user can add a project that includes required title and description and optional image

3. You can not make your project the portfolio app.

1 Problem Statement and Qualitative Research

You are going to make an app that solves a need and conduct qualitative research to understand the users and their needs. You should interview 2 to 3 people. You only need to interview them one time.

[What is a Problem Statement in UX? (And How to Write One)](#)

2.1 Describe the components of a problem statement. How do you go about defining your problem statement and understanding the needs of the users? Who should you include when gathering information?

The problem statement should ask the 4 Ws. Who, why, where, and what of the problem. Who is the problem? WHy is the problem? Where will this product be used? Why is this important? The problem statement should also answer the 5 whys. I think it is important to create a great problem statement that would answer everything in a clear manner since if not, why are you even making the product to begin with? \

When gathering all the information for the project and the problem statement for, you should always include the people who will end up using the app, and the stakeholders.

2.2 Describe an idea for the app you will develop this semester.

My idea for this semester's app is going to be a fitness tracking app. My general idea for the app is make it easier and more fun for all the gym goers to track their day to day fitness goals such as nutrition and workouts. Im unsure about a lot of the gym communities, but many of the people I know including me very roughly track what we eat and what we do in the gym. I want to create something that will help us track what we eat every day and to make sure we are hitting our nutrient macros and maybe create a competitive platform with friends and give an actual numbers to the workout you just had by adding all the weights you lifted during the workout.(Ex: 8 reps of 100ib bench press makes it 800lb for that set; End of workout total: 20,000lb) to keep the users engaged and keep using.

2.3 Create your worksheet to interview users to develop your problem

statement, users stories and acceptance criteria in another document.

2.4 How could surveys be used to gather information? Give an example of some survey questions you could ask?

Survey questions can be effective by reaching the mass audience and give an insight about what the end users might want.

Some of the survey questions i could ask would be:
-Asking the gym community
"Do you use a fitness app?"
- If the answer is yes, "What kind of fitness app do you use and whats your favorite feature in the app"
"Is there a reason why youre not using a fitness app?"
"What are some of the feature youre looking for in a fitness tracking app if it was free of use?"
- "Why do you feel like that feature is important?"
"What would make you want to be active on the app?"

2.5 Include at least 3 resources you used. You must have at least one resource not in the lectures.

Lecture 7 Customer requirement
https://www.grammarly.com/blog/problem-statement/
https://www.betterup.com/blog/problem-statement

2 User Stories

User stories for our class will be
- Written in "Connextra" format
- SMART

3.1 Describe the components of a user story and summarize what user stories should and shouldn't be. Give examples.
User stories are typically 1-3 sentences written in a way the customers understand the focus on stakeholders. User stories should describe one thing that the software needs to do for the customer.

The Connextra format puts everything very clearly in the following format:
- Feature name
- As a {stakeholder}
- So that {I can achieve some goal}
- I want to {do this task}

A user story is good when it is SMART
- Specific
- Measureable
- Achievable
- Relevant
- Timeboxed

Example of this would be:
As a fitness enthusiast,
I want a comprehensive app to track my daily nutrition and workouts
So that I can easily monitor and achieve my fitness goals in a fun way.

3.2 Explain the value in using the user stories methodology with a customer.

There are a lot of values in using the user stories with a customer. Through using the USM, communication with both end users and stakeholders would be amazing, making sure that we are creating the product that will satisfy most of the people, and it makes the project more manageable by dividing up the complex tasks into smaller parts.

3.3 Include at least 3 resources you used. You must have at least one resource not in the lectures.

https://enterprise-knowledge.com/the-value-of-user-stories/

https://kissflow.com/project/agile/creating-agile-user-stories/#:~:text=Not%20only%20do%20user%20stories,complex%20tasks%20into%20small%20parts.

Lecture 7 Customer requirement

3 BDD Scenarios

For this class we will follow

- User story should include "happy" and "sad" scenarios.

- Scenarios should have 3 to 8 steps written in the BDD form describing the process
  - Scenario: Title of the condition
  - Given: Represent state of world before event (preconditions)
  - When: Something happens
  - Then: This is the result (postcondition)
  - Optionally And, But

4.1 Explain Behavior Driven Development methodology and include the benefits.

BDD is a methodology that focuses on user requirements and interaction with the product. By interacting with the users and communicating clearly from both parties, BDD can help to avoid unnecessary features and actually make the needed portion work properly.

4.2 Describe the components of BDD scenarios and include examples.

BDD scenarios include happy and sad scenarios. Happy scenarios being a scenario where the user and app both work exactly how you expect it, and the sad scenarios being where the user and app dont act as you expect it to.

Examples from my project:
Happy path:
- Scenario: Workout calculation
- Given: Successfully created that said workout (Squat)
- When: User enters the number of reps and weight for their set.
- Then: App successfully calculates the total weight pushed for that set and stores the data correctly to be continuously calculated on top for the next and the next set.

Sad path:
- Scenario: Workout calculation
- Given: Successfully created that said workout (Squat)
- When: User enters an impossible number (if their max lift is 100lb and user enters 9000lb)
- Then: App will ask, "Are you sure that is the correct weight?"

4.3 Include at least 3 resources you used. You must have at least one resource not in the lectures.
https://www.techtarget.com/searchsoftwarequality/definition/Behavior-driven-development-BDD#:~:text=By%20encouraging%20developers%20to%20focus,(TDD)%20and%20acceptance%20testing.

https://www.youtube.com/watch?v=B8R_CPt9270
https://www.departmentofproduct.com/blog/writing-bdd-test-scenarios/

4 Lo-Fi UI Mockup

5.1 Explain the benefits in using Lo-Fi Mockups of the web page with the customer.

Lo Fi mockups can not only show your idea of the project to the customers, but can also get rapid feedback for the project from end users and stakeholders. As we talked about it in class, it is important to create something that is required first and to make sure they are working properly. Lo Fi mockups are powerful in a way that it can represent the web page to the customers in this way.

5.2 Describe what the Lo-Fi storyboard should contain.
I like to think of Lofi storyboards as a visual pseudo-algorithm and test cases. The storyboard should show all the possible user interactions including forms, buttons, what each page should look like, what happens at this page, etc. The storyboard should also be very easy to follow and should focus on behaviors only. The one I drew up contains a lot of arrows showing what happens if you press a certain button and where it is going to take you.

5.3 Include at least 1 resource showing a lo-fi mockup for an app.

https://www.figma.com/resource-library/low-fidelity-prototyping/
https://lucidspark.com/blog/how-low-fidelity-mock-ups-streamline-the-design-process