

Brock University

Computer Science Department
COSC 4P02 – Software Engineering 2

Release Planning

HabitForge



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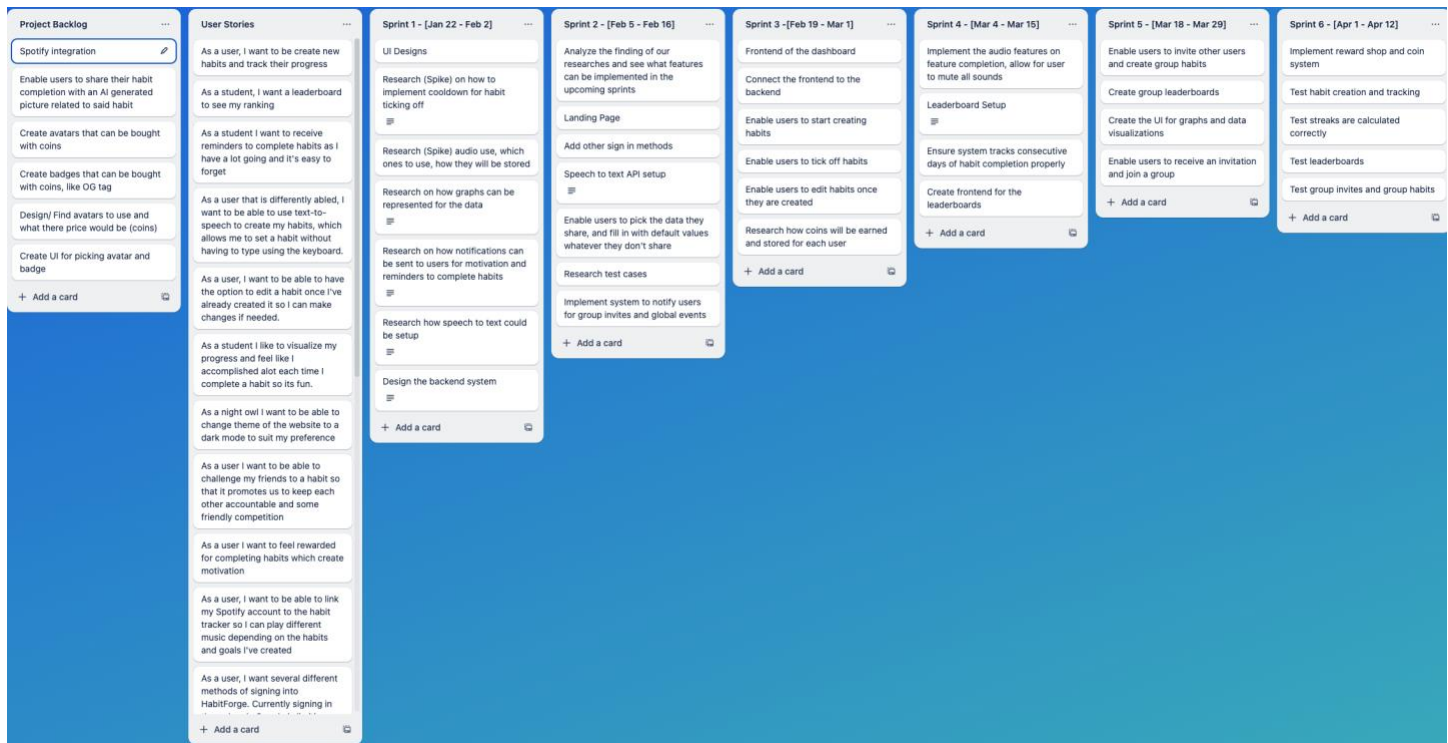
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Introduction

The purpose of this project is to provide an overview of the release planning process for the HabitForge project. The project aims to track the habits that the user possesses. The following sections outline the project backlog, user stories, and the research and development tasks that are scheduled. We've created a Trello board which contains all the user stories and information regarding our sprints. In our meeting with the TA, (Brendan), we showed our Trello board and also shared it to Brendan's email, where he has access to the board. A picture of it has also been attached below.

[Trello Board Link](#)



Project Backlog

This section outlines the key features and tasks that are essential for the HabitForge tracker's future release. The primary focus is on improving user engagement and the overall experience within the app. This section includes:

1) Spotify Integration:

Integrate Spotify to provide users with access to music

2) AI-Generated Pictures for Habit Completion Sharing:

Let users share their achievements using AI-generated pictures relevant to each habit.

3) Avatars Purchasable with Coins:

A system where the users can buy personalized avatars that match them better using in-app currency. This provides more personalization options.

4) Badges Purchasable with Coins:

Purchasable badges using in-app currency for users to add prestige to their account.

5) **Avatar Selection or Design:**

A system that allows the user to design their own personalized avatar or provide a source of avatars that the user can choose from determined by their price in coins.

6) **User Interface for Avatar and Badge Selection:**

UI creation for avatar and badge selection.

User Stories Overview

The user stories provided below outline the diverse perspectives and needs, contributing towards the experience for HabitForge users.

1. **Creating and Tracking Habits**

As a user, I want to create new habits and track their progress

2. **Leaderboard System**

As a student, I want a leaderboard to see my ranking

3. **Reminders**

As a student, I want to receive reminders to complete habits as I have a lot going and it's easy to forget

4. **Text-to-Speech for Accessibility**

As a differently-abled user, I want to be able to use text-to-speech to create my habits, which allows me to set a habit without having to type using the keyboard.

5. **Editable Habits**

As a user, I want to be able to have the option to edit a habit once I have already created it so I can make changes if needed.

6. **Visual Progression**

As a student, I like to visualize my progress and feel like I accomplished a lot each time I complete a habit so it is fun.

7. **Dark Mode Theme**

As a night owl, I want to be able to change the theme of the website to a dark mode to suit my preference.

8. **Friendly Challenges**

As a user, I want to be able to challenge my friends to a habit so that it encourages us to keep each other accountable and some friendly competition.

9. **Spotify Integration**

As a user, I want to be able to link my Spotify account to the habit tracker so I can play different music depending on the habits and goals I have created.

10. **Sign-in Options**

As a user, I want several different methods of signing into HabitForge. Currently signing in through only Google is limiting, as I do not frequently use my Google account.

11. **Cookie Preferences in Settings**

As a user, I want the option to enable or disable web cookies in the settings of HabitForge.

12. Mobile Experience

As a user, I want to be able to access HabitForge on my phone and tablet's browser without losing its quality. It should be responsive and look the same as the desktop.

13. Reward System

As someone who likes gamifying tasks, I want to be able to unlock new features with rewards I have earned with habits.

14. Leaderboard

As a user, I want to be able to know what it takes to get on the leaderboard as I get motivation from wanting to be at the top.

15. Privacy Control

As a user, I want to control what data I share with the software as privacy is very important to me.

16. Diverse Sign-in Options

As a user, I want to be able to have many options to sign in with as it gives me freedom to use certain mail clients for certain software.

17. Badge System for Achievements

As a user, I want to be able to earn badges based on how many habits I have completed and my streaks and show these badges on the leaderboards.

18. Personalized Avatars

As a user, I want to be able to personalize my avatar.

19. Social Media Sharing

As a social butterfly, I want to be able to share my habit completions and streaks with my friends on social media.

20. Referral Program

As a user, I want to be able to invite my friends to start creating habits, and maybe I get a referral bonus for it.

Sprint Summary

We have planned a total of six sprints with each sprint lasting nearly two weeks.

- **Sprint One [Jan 22 – Feb 2]:** The goal of sprint one is to design the user interface of HabitForge and to have each person in the group research a specific feature that they want to implement in our website. We will use sprint one as a spike to research certain user stories to estimate how long the story will take to develop and how it will be implemented. Each group member will document their findings as the research progresses. Additionally, the backend system will be designed during sprint one. The topics we are researching include:
 - Research how to implement a cooldown for habit ticking off.
 - Research audio use, which ones to use, and how the audio will be stored.
 - Research on how graphs can be represented for the data.
 - Research on how notifications can be sent to users for motivation and reminders to complete habits.
 - Research how speech-to-text could be set up.

- **Sprint Two [Feb 5 – Feb 16]:** The goal of sprint two is to take our research findings from sprint one and begin the implementation process of it. This includes setting up any APIs that are needed. The following are the tasks in sprint two:
 - Analyze the finding of our research and begin implementation/setup of the feature.
 - Develop the landing page.
 - Add additional signing in to HabitForge methods.
 - Speech-to-Text API setup.
 - Enable users to pick the data they share and fill in with default values whatever they don't share.
 - Implement system to notify users for group invites and global events.
- **Sprint Three [Feb 19 – Mar 1]:** The goal of sprint three is to develop the actual website by implementing the design and setup from the previous sprints. The following are the tasks in sprint three:
 - Develop the front-end of the dashboard.
 - Connect the front-end to the back-end.
 - Enable users to start creating habits.
 - Enable users to tick off habits.
 - Enable users to edit habits.
 - Enable users to edit habits once they are created.
 - Research how coins will be earned and stored for each user.
- **Sprint Four [Mar 4 – Mar 15]:** In sprint four our main focus is on implementing audio into HabitForge along with setting up leaderboards and tracking. We will implement the following:
 - Implement the audio features on feature completion, allowing for user to mute all sounds.
 - Leaderboard setup. This includes how the ranks are calculated, when are they calculated, and the frontend component for the leaderboard.
 - Ensure system tracks consecutive days of habit completion properly.
 - Create frontend for the leaderboards.
- **Sprint Five [Mar 18 – Mar 29]:** Sprint five is going to focus on implementing features where users can interact with other users. Features we will implement include:
 - Enable users to invite other uses and create group habits.
 - Create group leaderboards.
 - Create the UI for graphs and data visualizations.
 - Enable users to receive an invitation and join a group.
- **Sprint Six [Apr 1 – Apr 12]:** Sprint six is our last sprint where we will implement the reward shop system and have a main focus on testing HabitForge. We will write test cases and test every feature extensively to ensure there are no bugs before final deployment. The tasks we will be doing include:
 - Implement a reward shop and coin system.
 - Test habit creation and tracking.
 - Ensure test streaks are calculated correctly.
 - Test leaderboard system
 - Test group invites and group habits.
 - Test functionality (through test cases) of all major components in the software.

Breakdown of each person's contribution

- Each member in the group for the release planning document has done an equal amount of work. On our weekly Saturday group meetup through discord, each person created a couple of user stories and added it to the Trello board. We discussed as a team how our sprints are planned out and what we plan on accomplishing within each sprint.