TREE HUGGER CO.

Project Proposal

COSC4P02
SOFTWARE ENGINEERING II
WINTER 2024
NASER EZZATI-JIVAN
JANUARY 15TH, 2024

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PROBLEM

Some plant enthusiasts, especially those who are new to the hobby, often struggle with identifying and differentiating between a plethora of different plant species. It is also common for health hazardous plants to be mistaken with harmless plants due to their striking similarities in appearance. This poses problems with not only plant enthusiasts, but with the general public where most plants make up the majority of our menus and dinner plates.

OBJECTIVE

The objective of this project is to create an application that will assist us in identifying trees, plants, and fungi. The application should help people to become well-versed with recognizing many plant species. Most importantly, the software will notify the user of dangerous plants. It will also encourage people to use the app more often through a reward system and, therefore, encourage people to engage in outdoor activities. The user will be able to upload their photo of a plant they wish to identify. Once the photo has been uploaded, the application will identify appropriately using image recognition methods. The scanned plant will then be stored in a ‘garden’, ‘meadow’, or ‘forest’. Every new plant that has been identified will grow in an environment picked by the user. The application should have a reward system as well. Up to a certain number of new plants identified will unlock a new background, wallpaper, widget, or a decoration for the environment. Thus, these features will allow the application to be entertaining, interactive, and engaging to the user.

IMPORTANCE

This project has several important benefits and applications that contribute to both environmental conservation and personal knowledge. This project assists plant enthusiasts, botanists, and the general public with identifying various plant species, including endangered or invasive ones; thus, is crucial for biodiversity and conservation. It serves as an educational tool and promotes awareness about the importance of plants in the ecosystem. Nature enthusiasts, hikers, and tourists can use this app to enhance their outdoor experiences, deepen one's connection with nature, and to have a greater appreciation for the environment. Most importantly, this app will provide information on the medicinal or culinary uses of certain plants. It is important to be knowledgeable of hazardous plants that may pose a threat to our health.

Software Engineering Process

The plant identifier app may have evolving requirements and frequent changes overtime. Additionally, it may require frequent iterations, testing, feedback from customers and stakeholders, and continuous delivery, especially within the coding phase of our project; therefore, our project will implement the **Agile-Scrum method** for our software engineering process. Agile-Scrum method involves iterative development in short cycles called sprints, allowing for flexibility in adapting to changing needs. This can be beneficial for our project where user feedback and new plant species may influence features and priorities. The scrum method allows us to break down the project into smaller increments along with frequent, recurring meetings. With this method, we will be able to work on different parts of the project at once and how much work is completed and what is left to do without any difficulties or conflicts when the project is put together.

Our Team

STRUCTURE AND ROLES

Team Member	Role
Alexandre Reuillon	Developer
Balkaran Sidhu	Developer
Lance Brown	Developer
Manroop Singh Rakhra	Scrum Master
Marylina Aka Beyeh	Developer
Nicole Chang	Product Owner
Parneet Gill	Developer
Vishisth Sharma	Developer

Github Repository

Our repository for GitHub containing all files, code, documentation, read-me, etc., for the project:

https://github.com/Nicole-Vojvodich-Chang/COSC4P02-PROJECT-PLANT-IDENTIFIER

Meetings and Timetable

NOTE: SCHEDULED MEETINGS MAY CHANGE

Meetings:

- Meetings may be based on the class schedule: Tuesdays and Thursdays, 3:00 to 4:30.
- Weekly unofficial progress/update meetings (online) and bi-weekly sprint meetings for discussion of goals/expectations and problems faced in the last sprint.
- Weekly meeting would be sufficient and we can scale how frequently we need to make meetings in case we aren't doing enough or doing too much.

Date	Tasks
Jan 8th - Jan 16th	• Create and submit project proposal
Jan 17th - Jan 26th	• Develop and finalize software requirements (product and sprint backlogs), user stories • Complete release planning document
Jan 27th	• Start sprint 1
Feb 10th	• Sprint Retrospective meeting 1 • Test • Start sprint 2 • Work on progress report 1
Feb 24th	• Sprint retrospective meeting 2 • Test • Start sprint 3
Feb 27th	• Complete progress report 1

Date	Tasks
Mar 9th - Mar 10th	• Sprint retrospective meeting 3 • Test • Start sprint 4 • Work on progress report 2
Mar 21nd - Mar 22nd	• Sprint retrospective meeting 4 • Test • Start sprint 5 • Complete progress report 2
Apr 4th - Apr 5th	• Work on final report and presentation • Deploy final product
April 15th - April 28th	• Complete final report and presentation • Demonstrate Software