Software Project

TEAM NAME: Greenly Pebble
PROJECT NAME: Smart Plant

Deo Anthony Madrid (N01361264)

Patrick Gomulka (N01347564)

Erni Banaag (N01221990)

Ricci Gamiao (N01363076)

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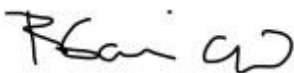
Team Name: GREENLY PEBBLE

Project Name: SMART PLANT

Please negotiate, sign, scan and include as the first section in your Deliverable 1.

Please note that if cheating is discovered in a group assignment each member will be charged with a cheating offense regardless of their involvement in the offense. Each member will receive the appropriate sanction based on their individual academic honesty history.

Please ensure that you understand the importance of academic honesty. Each member of the group is responsible to ensure the academic integrity of all of the submitted work, not just their own part. Placing your name on a submission indicates that you take responsibility for its content.

Team Member Names (Please Print)	Signatures	Student ID
Project Leader: Deo Anthony Madrid	*[signature]*	N01361264
Patrick Gomulka	*[signature]*	N01347564

Team Contract CENG-322

Erni Goze Banaag		N01221990
Ricci Gamiao		N01363076

By signing this contract, we acknowledge having read the Humber Academic Honesty Policy as per the link below.

https://academic-regulations.humber.ca/2018-2019/17.0-ACADEMIC-MISCONDUCT

Responsibilities of the Project Leader include:

- Assigning tasks to other team members, including self, in a fair and equitable manner.
- Ensuring work is completed with accuracy, completeness and timeliness.
- Planning for task completion to ensure timelines are met
- Any other duties as deemed necessary for project completion

What we will do if . . .

Scenario	Accepted initials	We agree to do the following
Team member does not deliver component on time due to severe illness or extreme personal problem	E.B D.M P.G R.G	a) Team absorbs workload temporarily __ b) Team seeks advice from professor __ c) Team shifts target date if possible __ d) Other:

| Scenario	Accepted initials	We agree to do the following
Team member cannot deliver component on time due to lack of ability	E.B D.M P.G R.G	a) Team reassigns component __ b) Team helps member __ c) Team member must ask professor for reference material __ d) Other:
Team member does not deliver component on time due to lack of effort	E.B D.M P.G R.G	a) Team absorbs workload __ b) Team "fires" team member by not permitting his/her name on submission __ c) Other:
Team member does not attend team meeting	E.B D.M P.G R.G	a) Team proceeds without him/her and will assign work to the absent member __ b) Team doesn't proceed and records team member's absence __

Scenario	Accepted initials	We agree to do the following
		c) Team proceeds for that meeting but "fires" member after __ occurrences __
An unforeseen constraint occurs after the deliverable has been allocated and scheduled (a surprise test or assignment)	E.B D.M P.G R.G	a) Team meets and reschedules deliverable __ b) Team will cope with constraint __ c) Other:
Team cannot achieve consensus leaving one member feeling "railroaded", "ignored", or "frustrated" with a decision which affects all parties	E.B D.M P.G R.G	a) Team agrees to abide by majority vote __ b) Team flips coin __ c) Other:
Team members do not share expectations for grade desired	E.B D.M P.G R.G	a) Team will elect one person as "standards-bearer" who has the right to ask that work be redone __ b) Team votes on each submission's quality __ c) Team will ask for individual marking and will identify sections by author __ d) Other:

Scenario	Accepted initials	We agree to do the following
Team member behaves in an unprofessional manner by being rude or uncooperative	E.B D.M P.G R.G	a) Team attempts to resolve the issue by airing the problem at team meeting __ b) Team requests meeting with professor to problem-solve __ c) Team ignores behaviour __ d) Team agrees to avoid use of all vocabulary inappropriate to the business setting __
Team member assumes or requests that his/her name be signed to a submission but has not participated in production of the deliverable	E.B D.M P.G R.G	a) Team agrees that this is cheating and is unethical __ b) Friends are friends and should help each other __ c) Team will submit with signature but will advise professor who will take action __
There is a dominant team member who is content to make all decisions on the team's behalf leaving some team members feeling like subordinates rather than equal members	E.B D.M P.G R.G	a) Team will actively solicit consensus on all decisions which affect project direction by asking for each member's decision and vote __ b) Team will express subordination feelings and attempt to resolve issue __

Scenario	Accepted initials	We agree to do the following
		c) Other:
Team has a member who refuses to participate in decision making but complains to others that s/he wasn't consulted	E.B D.M P.G R.G	a) Team forces decision sharing by routinely voting on all issues ___ b) Team routinely checks with each other about perceived roles ___ c) Team discusses the matter at team meeting ___

GitHub Repo Link: https://github.com/riccigamiao3076/SmartPlant

Invitation Screenshot:
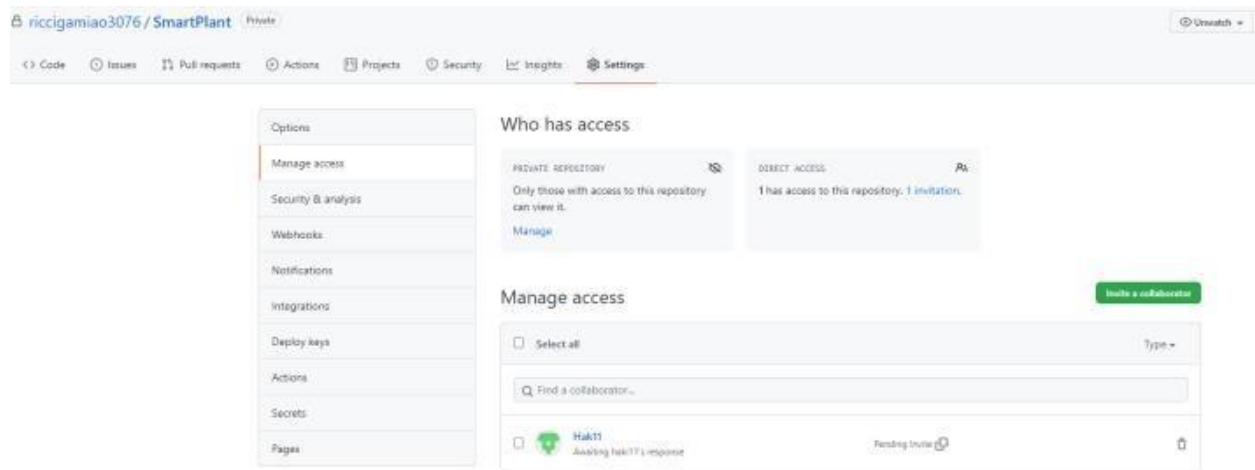
Project Background and Description:

1. Project Goals and Vision:

This Capstone Project envisions the automation of planting using technology. The Smart Plant helps plant growers track and monitor their plants daily and provides an efficient system for plants to grow and sustain the healthy plant. Using sensors such as Temperature, Humidity, soil moisture, and light, to allow users to maintain the health of the plant through an application, providing notifications for health updates or maintenance requirements.

2. Software aspect and hardware:

The software aspect of the project will use an android based app development, primarily using software tools such as Android Studio, and GitHub. The hardware will implement multiple sensors such as temperature, humidity, soil moisture, and light. We will also use water pumps, tubing, and a 4-channel relay board, to connect everything together to ensure every component is working in tandem with one another.

3. Screen Flows:

User's will be able to navigate the application with ease, as we will be using a bottom navigation design layout. When opening the application the user will see the temperature, humidity, soil water measurement, and sunlight lumens measurement. In the

middle of the screen there will be multiple types of plants to select and configure for maintenance.

4. Feedback Incorporation:

With the feedback requiring options Login and Registration we will incorporate this with our application using Firebase Realtime Database. Including different plant options for different specification maintenance needs.

5. Plans for Database:

We will implement Firebase Realtime Database for User login and Plant data statistics.

Project Scope:

The scope of the project will take around 2-3 months for the estimated completion, however depending on the upcoming demands and evaluations from other classes, we might need extra time depending on how it goes.

We will get all our required materials first, and then start planning the individual tasks to be evenly distributed to our team members in both software and hardware fields, and schedule regular in person meetings to discuss and work on the project.

If any technical challenges arise that jeopardize our projected completion date, we will reduce the length of our development phase by undertaking an improvised redesign of our product and simplifying the user interface if needed.

We will know when our project is complete, when we can verify the functionalities of our product, including both software and hardware requirements are met. The requirements include Sensor's data presented on the main screen, Selection of plants varying different maintenance requirements, Plant logs data used and presented via graph, and Login and Registration database / page.

Theme and Epics:

- **Theme:**
  Increase Plant Database

- **Epic #1**
  - Use a feedback page for new plants discovered.
- **Stories**
  - Create a community discussion about plants.
  - Add plant photo sharing with friends.
  -Automatic email surveys to clients.

- **Epic #2**
  - Create incentives to users for finding new plants.

- **Stories**
  - Create a badge achievement system.
  -Offer premium features to clients.
  -Create a contest program.