Weather App
Project Management Plan

Redoy, Eric, Bohao
Team 54

Contents

Introduction

The purpose of this project is to develop an app for a farming advocate group. This app will help farmers to prepare their crops depending seasons and temperature at different locations. The app uses dark sky API and google maps API to get the weather and location information and takes information provided by the user to find out if the given crop will thrive at that location.

Project Information

Background

An Australian farming advocate group called itGrowsOnYou (based out in regional Victoria) has a focus of helping farmers cope with water shortages, parasites, and other factors that could affect the quality of their produce. As the farmers are facing problems with their crops due to extreme changes in temperature. The group decided to commission a app that could provide farmers with suggestions. This app should demonstrate that one can determine the effects on given crops on any day as if the whole season would be like this using historical temperature measurements for that location itGrowsOnYou hopes that this app would save farmers the trouble of growing crops that would not thrive or might die entirely.

Scope

The app uses temperature information to decide if the crop will thrive. But, crops rely on other factors as well such as, rainfall or parasites. We are assuming that rainfall would be consistent and would not change the rate at which the crops grow, and we are also assuming that no disease or parasite would affect the crop growth as well. All things considered the app is very limited in scope as it tries to predict yield based only on weather. Another limitation is that it only considers weather data from the past 12 months which does not give much information to predict a pattern.

Due date

itGrowsOnYou requires the app to be finished before a certain date i.e. there is a deadline. As the app has to be completed before 7/09/2018 the tasks are to be completed in a certain amount of time.

N.B: The deadline got extended by 2 days, so the app must be submitted with the proper documentation by 9/09/2018.

Personnel

The team assigned to this app is made up of 3 people. The workload is divided equally between these teammates based on their personal capabilities. Redoy was assigned to the role of team leader. Eric was assigned as the vice team leader i.e. he would take charge if Redoy wasn't available.

Bohao	byuu0005@student.monash.edu
Imtiaz	Imuj0001@student.monash.edu
Eric	hhou0002@student.monash.edu

This assignment has three main features and one optional assignment to make the app more efficient. Our group allocated the features equally to the 3 people. .Bohao was allocated feature 1 which is mostly how the app would look and work. Bohao had to finish part of feature 3 as well. Feature 2 deals with adding new crops and storing that data and feature 3 deals with the location page. Feature 4 on the other hand just considers how to store information into local storage. Redoy was allocated feature 4 and part of feature 3. Eric was to finish feature 2 and the rest of feature 3. And the project documentation i.e. PMP. Class diagram and User guide were done by Redoy. Eric was in charge of making the slides for the final presentation.

Task	Team member
Creating a crop class and setting up code so that new crop objects can be created and stored in local storage.	Bohao
Creating a Location class and setting up code so that new crop objects can be created and stored into local storage.	Eric
Selecting a Location will take the user to the view location page.	Eric
Getting temperature from dark sky and displaying it at view location page	Redoy
Checking which crops are in season	Redoy
Checking how the change in weather will affect the crops	Redoy
Storing information to local storage and retrieving them	Bohao

Updating data when new date is added i.e. new weather data should update how the crops will be effected	Redoy

Decisions on Processes

The app requires various software principals to be used. One of this is version control. Since the app is a team endeavor and a lot of the processes depend on each other, a method was required by the team to keep track of each other's code and if changes were made. The tool used for this process is Gitkraken. There needed to be a cloud that could store the base and updated code. Bitbucket was used to store all the information to the cloud. Gitkraken was used by the team members to edit all code simultaneously.

Also, a specific tool is used by the team to facilitate task assignments which is Asana. Since the app is being developed in a relaxed environment all the team checked asana and GitKraken at their own convenience. Google drive was used to store all the documentation required by this assignment. Google slides was used to make the presentation slides so that the content was consistent, and everyone used the same font, color and heading. It also allowed multiple people to edit the presentation at the same time. Messenger was used for informal discussions between the teammates and also to setup meeting times and locations.

Communications Management

Official communication for the project was handled through Asana. Different team members were assigned tasks through Asana. Conversations about different projects are handled through Asana. Some of the unofficial communication was handled through a Facebook messenger group. But none of that communication was documented. Below a table is given to explain the communication processes and methods used for this web apps development.

Item	Purpose	Frequency	Audience	Effective Use
Face to face meeting	Discuss current state of app and decide on new processes.	Ad hoc	Available Team members	Prepare minutes after and during the meeting.
Facebook Messenger	Set up team meeting times and locations. Also urgent matters were discussed here as well	Ongoing	Two or more team members	Check messages every time a notification is received and reply to all relevant messages.

Asana	Task assignment and needed conversations on task completion.	Weekly	Up to all team members	Assign tasks to everyone according to their skills and mark tasks complete when accomplished.
Email	To contact the supervisor	Ad hoc	Two or more team members	Use email to contact the supervisor and team mates in an official capacity
Git Commits	Update device code and comments about what new function has been added	Per commit	Full team	Explain the change and why it was made.

Quality Management

The app had to pass some quality thresholds for it to be viable. Meeting the necessary requirements would only be the start of making the app useable. This app is to be a mobile app but, unfortunately most of the coding is done on computer and checking is done on the computer. This might lead to unforeseen problems such as, the map being to big and not being seen clearly on the phone or the tables used to demonstrate data being inefficient and exceeding the phone's screen.

The only way to avoid these problems is to have a stringent checking process that makes sure that the code can run without any problems in all types of devices without sacrificing functionality and reliability. This will be done through the team checking their updated code every week and try and make sure that the product doesn't have any unforeseen problems.

Risk Management

There are risks in every type of endeavour and a project as big as this is especially vulnerable to various risks. Given below is a table of the risks that this project may face and how they will affect the final product.

Risk	Affects	Description

Insufficient Team skill	Product	The team members might not be skilled enough to make the app as intended by the client
Unprofessional Team members	Product and project	If any of the team members decide to be unprofessional and not do any of the work the project and the product would fall into jeopardy
Injury	Product and Project	If any of the team members are injured, they will not be able to do their part
Exams/ Assignment	Product and Project	The project might be delayed or given less attention due to impending assignments or exams.