

**DEAKIN University**

**MAX VOICE**

Team 25

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Version 1.0

## Project Vision

Reecetech would like an application that makes the lives of their customers (mainly plumbers) much easier, they feel that their customers are frustrated trying to navigate between their 580+ stores across Australia and New Zealand.

The sheer number of stores are making it difficult for customers to find the store and thus the products they need. As a result, the client has devised a concept for a mobile application that can interface with its website to assist the customer in finding Reece branches and navigating their customers to them.

The client would like a mobile application that accepts voice commands, for example, if the customer asked where they can find their nearest branch, the application would interface with the client’s website and provide them with the address of said branch, and a way to get there.

## Context

The client would like a voice application that the customer could speak to; that is, the customer could ask it questions like where the nearest store is, or be more specific and ask where the nearest plumbing store is, or even make conversational commands, for example the customer could ask to call the Burwood store, and the application will obtain this information and call the Burwood store. There are similar solutions to this problem out there; applications that accept voice commands like Apple’s Siri and Android’s Google Home come to mind, however these are far too broad for the scope of this project. The client would like a more personalized approach to their problem.

## Value Proposition

This proposed application will be very valuable for Reecetech, as they feel it will make their customers lives a lot easier, they feel their customers are frustrated trying to navigate between stores, this application will remove that frustration meaning that people will be spending more time in store purchasing the items they need as opposed to trying to find the store they need. To put it simply, the less time it takes for the customer to find what they need, the more profitable it will be for the company.

## Core Idea / User stories / Requirements

As a customer, I would like to ask the app where the nearest branch is, and be navigated to that branch.

As a customer, I would like to tell the app to call a specific branch, and have the app call that branch

The above two user stories suggest that we develop a mobile application that uses some form of Artificial Intelligence and big data analysis to handle the voice commands. This will be broken up into smaller tasks that will be developed during the sprints.

As a user, I would like to ask the app who the manager of a branch is, and have the application tell me who it is.

As a user, I would like to know the trading hours of specific branches.

The above user stories suggest that information such as the branch manager and trading hours be available to the application.

## Core Idea / User stories / Requirements continued

The application should be able to utilize smart locations; that is if a customer asks for a branch, then it should be the branch closest to them and not one in another state.

This user story implies that the application can identify the correct postcode for a suburb. For example, if its Burwood, it should be able to identify that its Burwood Victoria.

As a user I would like to be able to speak to the app in a conversational manner.

This user story suggests that the user can have conversations with the app, and thus make the application launch the ringer of a phone and call a branch

## Product Backlog

* Voice Recognition (implementation of artificial intelligence)
* Global Positioning (implementation of global positioning to determine how to get to specific branches)
* Big Data Analysis (implementation of Big Data Analysis to handle the human to AI interactions)

## Project Target Outcomes and Timeline

So the first deliverable would have to be a basic phone application. This would contain a user interface with buttons that the user can use to navigate around the app.

Next would be the actual voice recognition and artificial intelligence to deal with the voice commands, this would probably be dependent on the first point, as you would need something to build this into.

Then would come the data analysis and global positioning from there, these would depend on the second point.

## 

## Constraints

The constraints that effect this project are as follows:

Limited time/budget: We do not have a very long time to do this, but strive to create what the client would like.

Group members have other subjects with other assignments: The groups focus will shift at times to complete the work required for their other subjects.

Technical Capabilities (The group has never developed a project like this before and are still learning; this is a learning experience)

The client would not like to create any new services internally to support this application, as such what we develop must be compatible with Reecetech’s current systems.

## Project Execution Plan

Wey Hong - Developer

Weiqi Zhang – Developer

Xueting Jiang - Developer

The Developers will assist one another on the design and development of the application, they will handle things like AI, GPS and Data Analysis

Vasu Batra – Security/Web: will handle the security of the application; involving such things as information and cyber security.

Alush Selimi (leader) – Web Development: will handle the interfacing between the app and the website.

## Project Execution Plan continued

Abdulrahman Baali – Database/BA – will handle the creation of a database containing information such as branch name, location, opening hours, phone number, branch manager etc.

Mahedi Raz – UX/UI – will design the user interface and make sure the user experience is a pleasant one.

It should also be noted that the team is multiskilled and will help one another and roles will cross as need they need to.

Technologies/Services to be used:

Google APIs/IBM Watson (Artificial Intelligence)

SQL for Database (Database)

HTML, CSS, JavaScript, PHP (Web Development)

Swift and Java (For Creation of the Application)

GitHub (Version Control + Backup)

OneDrive (Version Control + Backup)  
Trello/Slack/Facebook Messenger (Communication)

### Project Timeline

***Sprint 1 (weeks 5-8)***

**Aim –** Basic User Interface/User Experience and Artificial Intelligence/Database Creation/Documentation

**Sprint backlog -** Details of the user stories/items sprints

UI Design: buttons, labels, views

Implementation of Artificial Intelligence

**Specific focus** areas are:

* Technologies to use  
  XCode, Android Studio or Notepad++ (web dev)

IBM Watson/Google APIs

* User stories details.

Basic UI/ AI Implementation

**Target Outcomes** – what the sponsor will be get at the end of the sprint

At this time, the application will start to take shape. The user interface will be created, AI will be implanted, the database will also be created and populated with data.

**Usage Scenario** – How the user would be able to use your deliverables/outcomes

The user would be able to navigate around the application and also talk to it.

***Sprint 2 (Weeks 8-12)***

**Aim –** Big Data Analysis and Implementation of GPS + Completion of app/Documentation

**Sprint Backlog**

Take user input and search for a location and provide it to the user (all done by voice)

**Candidate User Stories -** Details of the user stories/items sprints  
this should lead to the completion of the app, at the end of this sprint the user should be able to operate the app via voice and get a response.

**Specific focus** areas are:

* Technologies to use

XCode + Swift, Android Studio + Java, Notepad++, Visual Studio

* User stories details.

Implementation of GPS to interact with the AI based upon voice commands. As well as User Manuals, and any other relevant documentation.

**Target Outcomes** – what the sponsor will be get at the end of the sprint  
By the end of this sprint the application should be in a working state, that is it should be able to take a certain voice command as user input and act upon that command.

**Usage Scenario** – How the user would be able to use your deliverables/outcomes  
The application would be presented to the client.

# Project Management

The following will be performed to help manage the project:

1. A weekly 30 minute standup meeting each Friday (afternoon/evening). Team to present (at a minimum): what was done during the week, what will be done next week and discuss any current thoughts/problems.
2. Demo of Sprint outcomes on (Friday Week 8 and 12)
3. Handover documentation, end of week 12 – 25th May 2018 @ 11.59 PM
4. Meetings with the client every second Wednesday – Starting Wednesday 4th April 2018
5. Meeting with supervisor on a regular basis to discuss what has been done and to ensure we are on the right track.

## 

## Artifact Management

Every week the current up to date version of our project will be uploaded to OneDrive and GitHub.  
We will also keep a copy on an external hard drive. This will act as both version control and a physical backup.

GitHub and One Drive links

[https://github.com/vasubatra/Reece-max](https://l.facebook.com/l.php?u=https%3A%2F%2Fgithub.com%2Fvasubatra%2FReece-max&h=ATMDycQ9B9OIkpq0yOqod9oUuaCSoWIDInfGIsNX_U-DWpxN82WRWvZ4K3lF_6OBTIF0nCHV8GZH3KXVw7GSbDFQJKfHdR8Pcu-eLwl7D45Jx_EX5Qo)  
https://deakin365-my.sharepoint.com/:f:/g/personal/aselim\_deakin\_edu\_au/Ei1KN1Jwb2xHnZVrYmYQdQcBI5ERmEe5YIARDq2q7ojj-Q?e=f4ol3Q

Tasks will be available on Trello, group members will log onto the service to mark what tasks they are currently doing and what tasks have been completed. The Trello link is below.

https://trello.com/b/NGlPPRoW/sit374-max-voice

Communication: Slack Channel LINK and Facebook Messenger

The group will communicate via Slack, and Facebook Messenger. The Slack link is below.

https://reece374group.slack.com