School of Computing

CA326 Year 3 Project Proposal Form

**SECTION A**

Project Title: GoShop

Student 1 Name: Luke Hebblethwaite ID Number: 17425212

Student 2 Name: Rachel White ID Number: 16324773

Staff Member Consulted: Darragh O’Brien

**Project description**

Our project is an app designed for anyone who may need assistance with supermarket shopping. There is no age limit as people of any age may require assistance for various reasons. There are many reasons as to why someone may not be able to complete a supermarket shop alone. They may have a physical disability, a chronic illness, a broken bone or are recovering from a surgery and can’t drive. They may also be an elderly person that requires assistance.

It will be a volunteer based app so the customer is getting a complimentary service, this is an important aspect of the app for us as we are aware that a lot of our users may be under financial constraints from being unable to work and medical bills. The drivers will register an account on the app and will have to be garda vetted in order to make an account, this ensures our customers have a reliable and safe experience. The customer simply enters their location, a date, a time and the supermarket they wish to go to. They will be matched with a driver based on the availability and location of the driver. The driver will then collect them, bring them to their chosen shop, help them around the shop and drop them back home.

The app will devise the most efficient route for the driver based on their jobs for the day. For example, if the driver is free from 10-2pm on a Tuesday and has four pickups the app will create a schedule with the most efficient route.

Another aspect of the app that is hugely important to us is that it is user friendly. We plan to incorporate an easy to use interface, in order to do this we will research usability and plan on implementing some skills learned from our CA357 module. There will also be an option to select a regular car or a wheelchair accessible car. The app will operate on a prebook system this means if a customer is unable to book themselves for whatever reason someone else can do it for them. There will also be the option to set up a recurring trip.

**Division of work**

* Frontend - Rachel
* Database - Luke
* Maps - Both
* Routing - Both

**Programming languages**

* Java.
* XML

**Programming tools**

* Android Studio.
* Firebase Realtime Database.

**Learning challenges**

* We have no experience with app development and Android Studio.
* We will have to learn how to use Google’s Firebase Realtime Database and integrate it into an Android app.
* We will need to learn how to use a git including the repositories, various commands and the use of the terminal.
* We have a basic level of Java but will have to expand our knowledge of the language.
* We will need to gain an in depth understanding of algorithms in order to create our own.
* We will need to do a lot of research into usability and how to implement it in our app so the majority of our users will be able to use it whether they lack technological experience or have a disability.

**Hardware/software platform**

* Android

**Special hardware/software requirements**

* This project should not require any special hardware or software to develop.