

# School of Computing

## CA326 Year 3 Project Proposal Form

### SECTION A

Project Title: VeggieCheck

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### Project Description

#### Introduction

There are approximately 300,000 vegans or vegetarians in Ireland, with Ireland ranking third in the world for countries with the most vegans per capita [1] and Ireland ranked 8th in the world for searches for vegan and meat free recipes [2]. This relies on the existence and availability of vegan and vegetarian friendly ingredients. Many consumers may be unsure while shopping if certain foods are suitable for them if the products are unclear if they are vegan or vegetarian.

#### Outline

We aim to create an application which will allow the user to scan the ingredients of a food item and instantly be told if it is suitable for their dietary restrictions. This mobile application will utilise the smartphone's camera and use text recognition to analyse the listed ingredients and compare them with a food database that will check if they are vegan and / or vegetarian.

#### Background

One of the members of the group is vegetarian which inspired this project. When researching other similar applications available on the app store, the most popular application's reviews showed that it recognised very few products and relied on users to input whether the product was vegan or vegetarian once they had scanned the barcode. We believe that we can create a more efficient application that will use a food database instead of relying on user input, which would frustrate the user.

## Goals

This project aims to create a mobile application that will be readily available for customers to use while shopping to provide a quick and easy way to check if a chosen item is vegan and / or vegetarian. This application will be useful for any vegan or vegetarian who wishes to have peace of mind about the products they are purchasing, either to see if the product is suitable or to double check the product if it already has a vegan/vegetarian friendly symbol.

## Programming language(s) and tools

- Xcode
- Swift programming language
- Vision Framework
- SQL

## Breakdown of work

### *Student 1 - Róisín*

- Mobile app front end development.
- Learn Xcode and Swift for back end development.
- Find a food database that we can use to check if ingredients are vegan/vegetarian.
- Focus on work featuring the database

### *Student 2 - Amelia*

- Research image recognition and Vision Framework.
- Focus on computer image recognition work.
- Learn Xcode and Swift for back end development.
- Mobile app front end development.

## References

[1] Oi.ie. 2021. *Ireland is the 3rd country in number of vegans per capita – Oi.ie – Brasileiros na Irlanda*. [online] Available at: <<https://oi.ie/en/ireland-is-the-3rd-country-in-number-of-vegans-per-capita/>> [Accessed 8 November 2021].

[2] Plant Based Ireland. 2021. *The Rise Of Plant Based Eating In Ireland*. [online] Available at: <<https://plantbased.ie/news/the-rise-of-plant-based-eating-in-ireland/>> [Accessed 8 November 2021].