FOOD FINDER KINDER

Project Proposal



Information Technology Capstone Project

COMP5703/5707/5708

Group Members

1. Thien Long (Jordan) Ly (480450344)
2. Tung-Ching (Wolfe) Lee (312004761)
3. He Feng (Stacey) (460413541)
4. Mingyi Gao (Penny) (480087645)

Abstract

The abstract should be between 150-600 words. Briefly summarise your proposal. The abstract is usually written last, when you have a clear idea of your proposal as a whole. The aim of this section is to quickly introduce the reader to the project, and ideally engage their interest and encourage them to read the rest of the proposal. You should include an overview of the project, its motivation, the objectives, and the methods you plan to use. Do not include details in this section , you will have plenty of space in later sections. Also remember that the reader may not understand the technical details of your project so avoid jargon and leave in-depth discussion for later sections.

Table of Contents

[Abstract i](#_Toc521501763)

[Table of Contents ii](#_Toc521501764)

[1. Introduction 1](#_Toc521501765)

[2. Related Literature 1](#_Toc521501766)

[2.1 Literature Review 1](#_Toc521501767)

[3. Research/Project Problems 2](#_Toc521501768)

[3.1 Research/Project Aims & Objectives 2](#_Toc521501769)

[3.2 Research/Project Questions 2](#_Toc521501770)

[3.3 Research/Project Scope 2](#_Toc521501771)

[4. Methodologies 2](#_Toc521501772)

[4.1 Methods 3](#_Toc521501773)

[4.2 Data Collection 3](#_Toc521501774)

[4.3 Data Analysis 3](#_Toc521501775)

[4.4 Deployment 3](#_Toc521501776)

[4.5 Testing 3](#_Toc521501777)

[5. Resources 3](#_Toc521501778)

[5.1 Hardware & Software 4](#_Toc521501779)

[5.2 Materials 4](#_Toc521501780)

[5.3 Roles & Responsibilities 4](#_Toc521501781)

[6. Expected Outcomes 4](#_Toc521501782)

[6.1 Project Deliverables 4](#_Toc521501783)

[6.2 Implications 4](#_Toc521501784)

[7. Milestones / Schedule 5](#_Toc521501785)

[References 7](#_Toc521501786)

# Introduction

In this section you will describe the context of your proposal. You will introduce the general background knowledge needed to understand the research topic (as it relates to your proposal), the motivation for your project, and the benefits that may be provided by addressing the research question. This should enable a clear and concise description of the problem that your proposal addresses. Write in a way that people or reader who does not have the same background will be able to follow or understand. No technical information is needed to be described in this section.

# Related Literature

Describe in detail the related knowledge needed to understand your work and how it relates to existing work. This may take the form of a literature review, or a review of related projects.

## Literature Review

A literature review is done by analysing and articulating the published sources and literature on the specific topic of the project. In this section, you should emphasise the review is needed and why the selected topic is essential for the project. Moreover, the scope of the literature reviewed and the selection criteria, such as the type of sources, keyword and any particular date range, need to be specified.

The literature reviewed can be in the form of an article such as conference paper, journal paper, a research report or thesis. The literature review usually consists of three main components: an introduction, a body and a conclusion. Furthermore, the literature review is not only summaries one by one of the source. Instead, it constructs an essay that flows from one topic to another that relates to the project problem that is to be solved.

For this type of project, the expectation of the literature to support the argument is at least 10 – 15 citations that compile state of the art discussion related to the problem of the project. Do not forget to consider the reliability of the sources.

# Research/Project Problems

Clearly state the problem or question the project intends to investigate. Describe the scope of your project since it may not be feasible to completely solve the problem. State the objectives and how completion will be measured.

## Research/Project Aims & Objectives

In this section, the aims and objectives of the project associated with the research question or problem should be explained in detail.

## Research/Project Questions

In this section, an apparent problem or question faced by the client needs to be defined and stated. Sometimes, even though the client already stated their problem it might be only the symptoms.

## Research/Project Scope

|  |  |
| --- | --- |
| **Project scope of work** | **Project scope of work includes:**   * Development of a mobile (Android) application and a website which could provide users with ratings of animal source food based on the living condition of the animal. * The application and website are expected to be users-friendly and cover the following features: * Signup/ Login function: Users should be able to use their facebook account to login and use the service provided. Otherwise, users can choose to signup for a new account; * Search function: Enable users to search through products in the database and examine the rating of a particular product; * Search for product in store: Enable users to scan through the stores available in the database and check which stores have a specific product; * Recommend stores which have the product: Enable users to provide recommendation on which stores have a specific product; * Collect and display data: Data collected from users’ behaviors should be recorded in the database and can be extracted by the administrators; * Input new product and rate product: Enable the administrators to enter new product and rate product in accordance with animal living condition; * The mobile application and website should be users-friendly. Hence the mobile application interface should be similar to “Good on you” mobile application. * Instruction on how to administer the mobile application and website must be documented to assist the client in managing the system.   **The project scope of work does not include:**   * Any adjustments related to the application after the deployment phase. * Daily administrating of the mobile application server after the deployment phase. * Any sales and marketing activities directed to end-customers. * Further purchasing of software and hardware besides the software and hardware specified in this project. |

# Methodologies

**SW Development**: Describe the methods you will use to solve the problem you are addressing, such as the SDLC methodology adopted, for example Agile. Explain how data is collected, the techniques used to analyse data, the models chosen, and how accuracy of analysis was determined. You should explain the reasons why you chose a particular technique and procedure for your project. You should also include how you intend to deploy the system to your clients as well as the testing processes involved.

## Methods

The software development life cycle is adopted in this project to help improve the performance of the development process and the overall quality of the final products. Please find belows the descriptions of each phase in the cycle:

### Planning

### Defining

### Designing

### Building

### Testing

### Deployment

## Data Collection

As defined above, the final deliverables of this project should contribute in helping client collect data about users’ number of searches for each products categorized by gender and age. In order to capture all relevant data, the following approach is adopted in this project:

* Firstly, a Signup/ Login function is developed so each users are able to login the application and website using their Facebook account/ or users could signup for a new account. Hence, upon logining using Facebook account, users’ birthdate and gender will be captured. Otherwise, in case that users choose to signup for new account, the system will request them to enter data related to their gender and age.
* Secondly, everytime a user search for a product (or click on that specific product to check the detailed information), the application and website will record their search history and send it to the database.
* Finally, to collect users’ behaviour data, the client can access the database using the “collect and display data” function in the website to access the number of searches per product filtered by age and gender.

## Data Analysis

There is no requirement regarding data analysis in this project.

## Deployment

**SW projects**: Explain the deployment of the system on client’s infrastructure. Remember to mention how updates and bug fixes will be distributed after the deployment.

After the deliver of final products, the source code of both mobile application and website will be transferred to our client. Furthermore the database and the website server will be deployed as follow:

* Database: The Mobile application and website both use Firebase as database to get data related to products (brand, rating), stores and users account. Hence, the database should be well established when the final products are delivered; As a result, Firebase account (including account email, password and username) will be transferred to client. The project team will have no access to the database afterward.
* Website server: The project team will work with relevant stakeholder to set up the website server with the domain name given by our client. Upon delivering the final products, project team will have no access to the website server; Client will work directly with the supplier after that day.

## Testing

**SW projects**: Include the detailed description of your testing process and methodologies. Examples include: Test Driven Development (TDD), Unit Testing, Integration Testing, vigorous testing, etc. Remember to explain why the methodology was chosen and how the defined testing process will contribute to the quality software development in your specific project.

# Resources

Indicate the resources that will be required to complete your projects. Depending on the nature of the project, include sections where appropriate.

## Hardware & Software

**SW Projects**: List the hardware that the proposed software will be compatible with and which it will be able to run on. For example: “The software will run on 32bit and 64bit Windows desktop systems from Windows XP to Windows 10.” or “The software will run on Java which can be implemented in a virtual environment on all major operating systems (Windows, Mac and Linux) on all modern hardware architectures (iPhones and Android smartphones).” List all software technologies that will be used in the development of the proposed software as well as all software that will be integrated with the system, for each one explain why it was chosen.

**IS/Data Science Projects**: List the software tools that will be used in the project.

## Materials

**SW/IS/Data Science projects**: List other resources you will need to complete your project

## Roles & Responsibilities

In this section, the detail of responsibilities of each member of the team should be defined, such as who did what? Each member can have more than one role, depending on the nature of the project.

# Expected Outcomes

## Project Deliverables

Product-related deliverables:

* A mobile application
* A website application
* Instruction manual
* Documentation of the system

## Implications

The output of this project is expected to support our client in researching about the connection between animal welfare, consumers’ demographics and shopping preferences. Furthermore, the deliverables of this project also contribute in improving transparency regarding the living conditions of animals and help provide more information about their living condition to consumers.

# Milestones / Schedule

**Data Science projects**: List the expected milestones. There should be sufficient detail to be able to measure progress and completion. Describe the planned timeline for the work you intend to do. A Gantt chart is ideal for illustrating the plan and where the milestones fit in.

**IS projects**: Within the allocated time, the detail of how the project will be running should be described in detail in this section. A Gantt Chart might be used to show and illustrate the milestone of your project.

**SW Development projects**: Describe the planned timeline for the work you intend to do. You can follow the common stages mentioned below as a guide to list the tasks required.

* Analysis
* Development
* Testing
* Deployment
* Training and documentation

You can use the example below of a project plan or create your own Gantt chart to detail the breakdown of tasks.

|  |  |  |  |
| --- | --- | --- | --- |
| 1. **Milestone** | **Tasks** | **Reporting** | **Date** |
| Week-1 | Analysis and design stage, gather data and create system mockup | Client meeting to review the project | 11-03-2018 |
| Week-2 | Architecture design | Client meeting to review the work plan | …… |
| Week-3 | Design work plan | None |  |
| Week-4 | Create database | None |  |
| Week-5 | Proposal Report Due |  |  |
| Week-6 | Create GUI | Client meeting to review GUI |  |
| Week-7 | Integration with iPhone environment | None |  |
| Week-8 | Testing | None |  |
| Week-9 | Progress Report Due |  |  |
| Week-10 | Deployment | Client meeting to deploy the system |  |
| Week-11 | Documentation |  |  |
| Week-12 | Final Presentation |  |  |
| Week-13 | Final Report (thesis) |  |  |

References

American Psychological Association (APA). (2010). *Publication Manual of the American Psychological Association* (6th Ed.). Washington, DC: Author.

* You are strongly encouraged to use information from reputable websites such as Wall Street Journal, New York Times, and websites from Governments, as well as books, academic journals and magazines (e.g., The Economist). Some well-regarded journals you may refer to are: Harvard Business Review, Information Systems Research, Management Science and MIS Quarterly.
* Please cite all references at the end of your paper (both proposal and final report). You should include references to facts, figures and any other information that you obtained from various sources. References from relevant papers in the University Digital Library are preferred over Internet sources as Internet sources may not always be reliable.
* Whenever you quote, paraphrase, summarise or refer to ideas, facts, figures or findings from another source (e.g. research paper, book, website), you should cite the source, with appropriate formatting, in the sentence that mentions these ideas or figures. It is not sufficient to just provide a list of references at the end of your paper. The source that you use should be cited in the text of your paper, either in parentheses or as part of the text itself. We suggest the use of APA style for referencing. If the references quite a lot, you can use the reference management system such as Endnote that provided by the University of Sydney (<http://libguides.library.usyd.edu.au/endnote)>.
* You are reminded that the University takes plagiarism infringements seriously. If the sources are not cited correctly, it may be deemed as plagiarism. Please note that your submission will be forwarded to an automated plagiarism checking system.

[Extra page inserted to ensure correct even-page footer for this section. Delete this when bibliography is at least 2 pages long.]