### <This report is like a bigger detailed version of your project contract, it states what you will do, looks at what is out there that is related to, or supports, what you are going to do, and finally shows what you are going to do.

### This is a just suggested minimum contents/layout>

Title

[[1]](#footnote-1)

Your name

Your P number

Date

IMAT3451 Interim Submission

# Introduction

### <Around 200-600 words, sentences rather than bullet points>

### **Abstract**

**Androids devices are constantly increasing and spreading all over the world. Being an one of the biggest open source operating system, android has stats of 87% beating all of the other operating system including IOS. In this project, an Restaurant Reservation App needs to be developed. Before actually writing the project, a background research and critical reviews needs to be looked at in the area of other similar systems that are out there and review them and talk about how it all relates to my project. Literature review aims to cover all of these areas in general and gives a starting point in actually developing my app.**

The aim of this project is to… [[2]](#footnote-2)

* Think like your project contract ‘Introduction’ section

## I am doing it because…

* Your motivation!
* A need?[[3]](#endnote-1)
* Think like your project contract ‘Background’ section

## This interim report contains…

A literature review that:

* investigates the problem area
* examines similar products/services/concepts/needs

And a functional requirements specification that:

* shows the main functions of the app

A brief summary of the work to date

### <Look at what you said in your project contract to inspire you on how to write this section, but don’t just copy and paste it over, edit it and make it a nice introduction to reading the report, you are telling the reader what the project is, why you are doing it, and what this report contains, and what happens next. It’s like an Abstract or summary…>

# Contents/Index

## A contents page or two, main headings with page numbers

# Figures and Tables Index

## A contents page or index of the tables and figures

# Literature Review

### <8 to 12 pages, more if you need>

## Your lit review looks at what is out there that is related to, or supports, what you are going to do. It identifies existing knowledge related to your work, talks about it and evaluates that work, then places your work in relation to this existing knowledge.

* What do I need to find out?

**I will need to find out about how restaurant reservation bookings started in the first place.**

* What has been done before?

**Before the online reservation system, many restaurant used to pencil the booking down on the diary through a phone call or by person. Even though the restaurants still do take reservations through phone and by person, online reservation on the other side has also widely been recognised and developing a lot.**

* What is happening now?

**Restaurants nowadays are commonly taking online reservations for their clients, specially fine dine dining. Many restaurant owner believes that this service has became an integral part of the service for now to operate the Restaurant businesses as it comes with multiple of benefits.**

**Having to book a table before going to the restaurant has been an one of the part of restaurant service. This service has being helping many restaurant on the growth of the business in many terms.**

**Some of the problems that has being occurring and majorities of restaurant are commonly facing are such as, restaurants staffs not being able to manage and fit in walk in( Non reserved) customers in busy peak times. Whereas in the off-peak times the restaurants tends to become very quite and**

What are the key issues?

* When did this happen?
* How does this relate to what I will be doing?
* How does this help me to do what I will be doing?
* Where or what are the best sources of information?
* Search systematically, follow leads logically.
* Read about everything related.
* Be critical and evaluate.

## Split the review into sections. Areas to look at include, in no particular order, arrange to suit your ideas:

## Introduction

What is the purpose and central idea of the review? What does it contain?

## Choice of hardware and software

* Current development environments out there that support your project aims, survey and justify the IDE you chose.
  + **Androd Studio- the reason I chose android studio as my IDE is because I think android studio is one of the most effective software for developing any sort of android applications. As android been an open source platform for everyone and as per now a days androids operating system are been widely recognised across the world since they are used in most of the platforms and devices such as mobile phones, tablet, TV and computers etc.**
  + MS Developer Studio
  + ...
* Language you will use, which is the best choice for your project and your programming experience, and why?

**Android Studio uses many programming languages such as Java, C#, Kotlin etc. Java being the most popular and first option to develop android apps, it is also an official programming language for android development.**

**Throughout my previous experience with java taught me that Java has most of the support for games and apps on play store and it is supported from Google. Java has been a one of the oldest programming language which was officially released back in 1995, meaning that it is now used for wide range of programming languages.**

* + C#
  + ...
* Survey and choice of hardware sufficient to do what your project needs
  + sensors
  + phone speeds
  + level, functionality, user group of Android
    - Oreo, Kitkat...
    - Nuber of users with that level
  + communication methods
    - Bluetooth
    - Wi-Fi
    - NFC
    - ...
* If you are using them, the evaluation and choice of your:
  + web hosting/database service
  + cloud platform and messaging services, for example:
    - Google
    - Firebase-

**To store the users datas, images and other information , the back- end system that I would be using will is firebase. Firebase is very smoother and faster. As my app will be created by android which is from google similar to the firebase which is also from google**

* + - Microsoft
    - Amazon
    - ...

## Current products or apps out there:

* There are some similar apps out there, OpenTable, quandoo etc.

https://www.opentable.co.uk/leicestershire/leicester-restaurants

* Are different but of interest
* That informed or inspired your ideas
* Evaluate them:
  + How do they work
  + How do they relate to your work?
  + How does your idea compare to them?
  + Make a comparison table?
  + Screen shots
  + Feature summaries of each app

## What standards or recommendations are out there?

* Are there existing standards, regulations, recommendations that relate to your project?
* Do you need to use them?
* Would it be good if you did?
* Interface design recommendations:
  + Human-computer interaction recommendations
  + Google Material Design
  + Model-View-Controller
  + ...
* Accessibility
* Language
* Code recommendations that may relate to your project:
  + Model-View-Controller
  + Encryption/Passwords
  + Storage structures
    - JSON
    - XML
    - ...

## The needs of your target users:

## To be a successful app developer you will need to fulfil all of the needs that your users are expecting to see in the app.

* Gamers, Children, Older people, Drivers and road users, Language learners, Business owners, Movie fans
  + What are their needs?
  + What current products or apps address their needs?
  + How does your project relate to those needs?
  + Make a comparison table?

## Literature review conclusions

* Brief wrap-up of the review
* summarise the main points
* make some conclusions based on what you have learned and evaluated
* show how you project will relate to your literature review conclusions

## Literature review references

When writing about something you have found you must put a reference to it in the main text, and in the references.

* Follow the guidelines in the Harvard Referencing Rules.pdf

# Functional Requirements Specification

## A list or table or description of what your app will do. Both functional and non-functional.

* 1. Functional requirements are the main things that the user expects the software to do, for example if the application is a banking application that application should be able to create a new account, update the account, delete an account, etc. functional requirements are detailed and are specified in the system design.
  2. Non-functional requirements are the not straight-forward requirements of the system and are usually related to usability, for example for a banking application a major non-functional requirement will be availability of the application, it should be available 24/7 with no down time if possible.
  3. They can be lists, tables, or a range of formats.
  4. For example: A Butterfly Identification App
  5. Figure 1. A Butterfly (Reference here, see Harvard guide)

## Functional Requirements of the Butterfly App

### <This example divides things into screens, you don’t have to, do it how it makes sense to you>

## The app must allow a user to:

* + Log in and out
  + Take pictures of butterflies with the camera
  + Identify the captured butterfly image by using a cloud service
  + Display the identity of the butterfly
  + Display a picture of the identified butterfly
  + Keep a score of the number of identified butterflies
  + Share this score with other users
  + Show the scores of other users

## The app will have a database and four user screens:

## Login screen

* + Displays app logo
  + Allows the user to log into the shared butterfly database online
  + Displays user name and password
  + Allows user to enter password
  + Checks password against online database
  + Offers retry if incorrect password
  + OK and cancel

## Home screen

* + Shows button to camera screen
  + Shows button to identification screen
  + Shows score of correct butterfly identification guesses
  + Allows score to be reset
  + Allows score to be shared with other app users
  + Shows the scores of other app users
  + Allows log out

## Camera screen

* + Shows picture from camera
  + Allows photographs to be taken
  + Has camera preview mode
  + Has Identify Butterfly button
  + Allows return to home screen

## Identification screen

* + Shows camera thumbnail
  + Displays most likely butterfly image
  + Shows list of names of most closely matched butterflies, most likely at top.
  + Allows return to home screen

## Database

* + Maintains connection to Google Cloud Servers
  + Sends camera image to Google Cloud Servers
  + Receives list of possible butterfly identities from Google Cloud Servers
  + Searches for and receives most likely butterfly picture from Google Cloud Servers
  + Holds user butterfly identity score

## Non-functional requirements:

* + Butterflies must be identified correctly 80% of the time
  + The database must get a match within 10 seconds
  + The app must have large buttons for accessibility

Or as a tables:

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement ID | Description | Functional requirements | Non-functional Requirements |
| 1 | Database functions | Maintains connection to Google Cloud Servers | Must have a latency < 10 seconds |
| 2 |  | Sends camera image to Google Cloud Servers |
| 3 |  | Identifies image | Must be >80% accuracy |

Table 1. Functional Requirements

Or cards:

|  |  |
| --- | --- |
| Description | Database |
| Functional Requirements | 1. Maintains connection to Google Cloud Servers 2. Sends camera image to Google Cloud Servers 3. Receives list of possible butterfly identities |
| Non-Functional Requirements | 1. >80% identification accuracy |

Table 2. Alternative Presentation of Functional Requirements

Or any method you like, particularly if you are using project management software - ask me if you are not sure what methods are acceptable. Try to list more requirements than I have here, these are just basic examples.

# Summary

### <200-600 words, more if you need to. Wrap it up. Mention that this interim report will be followed by a final report at the end of the project>

# Appendix

## Project Contract

## Ethical Review

## BCS Checklist

## Global Checklist

## Project Plan

## Gantt Chart and other project planning presentations

* + - landscape, big and easy to read
    - include any other planning graphics here

## Periodic Progress Reports

* + In order, oldest first.

That’s it!

* Put it together as a single pdf.

1. [↑](#footnote-ref-1)
2. [↑](#footnote-ref-2)
3. [↑](#endnote-ref-1)