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# Coffee Cars and QR codes

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# Abstract

# Acknowledgements

I would like to thank my wife and family for all their support over the last four years in getting me to this stage of the creative computing hons degree course, it hasn’t been an easy road for me but it definitionally has not being an easy road for them. Secondly, I would like to thank my supervisor Joachim Pietism for his support and guidance throughout this process. Lastly, I would like to thank all the lecturer staff whom I have studied under over the last four years in IADT there guidance and support have gotten me to the place I am now.

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I am aware of the Institute’s policy on plagiarism and certify that this thesis is my own work.

Student: Derek Reid n00192978

Signed

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# Introduction

Look at Project Guidelines document

The overall aim of this project is to develop a web application using the MERN stack. The web application is to connect the Coffee and Car community to offline members outside their community.

Application area

Technologies

Laravel

Vue

Unity

Android

Project management

Team work

Tools

Trello

GitHub

Journal

Requirements

Design

Implementation

Testing

# 2 Requirements

## 2.1 Introduction

The purpose of the requirements phase is to allow for developers to work out what the application should be able to do. It is important to understand what the users would like the application to do rather than the developer deciding what is required.

You can write a bit about your project area.  Each paragraph has a blank line between it and the previous paragraph

## Requirements gathering

2.2.1 Similar applications

Look at and document three similar applications.  Be sure to include the following for each:

* Screen shots
* Descriptions
* Advantages
* Disadvantages

* + 1. Interviews

Conduct interviews with 3 or 4 users to find out what the important features for them for the app are.  There may be various issues that arise in multiple interviews. These can be grouped together into a number of themes.

* + 1. Survey

You can create a questionnaire and use the results of the questionnaire as a basis for finding out requirements.

* 1. Requirements modelling
     1. Personas

These are fictional characters to help the developer understand the users’ needs. They also help identify who the relevant users are.

* + 1. Functional requirements

Create a numbered list of what the application should be able to do. Start with the most important feature.

* + 1. Non-functional requirements

These are requirements which if not met do not stop the application from working, but which mean that the application is not working as well as it should.  They are usually based on issues such as:

* Usability
* Performance
* Security

* + 1. Use Case Diagrams

Consists of actors and use cases.  You should document each individual use case.

* 1. Feasibility

This section describes which technologies are planned to be used in the development of the application.  It then explains if there are any issues in terms of the technical feasibility of the project, for example, if there are two different types of software which may have compatibility issues.

* 1. Conclusion

Write a couple of paragraphs summing up the chapter.  Explain what area your project is about.  Describe what the chapter has discussed.

# Design

## 3.1 Introduction

## 3.2 Program Design

### 3.2.1 Technologies

### 3.2.2 Structure of React/Angular

### 3.2.3 Design Patterns

### 3.2.4 Application architecture

### 3.2.5 Database design

### 3.2.6 Process design

## User Interface design

### 3.3.1 Wireframe

### User Flow Diagram

### Style guide

## Conclusion

# Implementation

## Introduction

## 4.2 Scrum Methodology

## Development environment

## 4.3 Sprint 1

Major Project – DL836 BSc in Creative Computing

Record of Sprint Review meeting between student and supervisor

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Student** | Derek Reid N000192978 | | **Supervisor** | Joachim Pietsch |
| Sprint # | Design sprint 1 |  | Date | 17/01/2023 – 24/01/2023 |
| **Items discussed at this meeting:**  In this sprint we began to look at the design elements of the mobile application Sue held a workshop on starting a design to work towards, In it she discussed the working of crazy 8, where you fold a sheet of paper into 8 squares and design a screen on each section of the page. We also talked about the flow of a mobile application and what to look for in a good working application. John Montayne held a Figma workshop and gave us a example of making Components. Grainne Carroll uploaded a number of video tutorials on Teams for us to follow about Figma.  In our weekly meeting Joachim looked at the progress of the mobile design and gave some insights to making it mare streamline and user friendly. | | | | |
| **Activities and/or Backlog items complete:**  In this Sprint I have worked on the design elements and with Figma have worked on a basic layout and refined the colour scheme. Worked on a paper prototype and flash cards to detail how the application flows from one screen to another. This will be an ongoing item. | | | | |
| **Activities and/or Backlog items to complete prior to next review:**  I must investigate how the likes of WhatsApp use a QR code scanner to work from within the application. Refine the footer to remove the profile tab and possible have a calendar instead. Investigate the register/login methods and the access to a camera/location in an application. | | | | |
| I, the student, confirm that the above is an accurate record of the meeting.  Signature of student: 24/01/2023 | | | | |
| I, the supervisor, confirm that the above is an accurate record of the meeting.  Signature of supervisor: | | | | |

### 4.4.1 Goal

### 4.4.2 Item 1

## 4.5 Sprint 2

### 4.5.1 Goal

### 4.5.2 Item 1

### 4.5.3 Item 2

## 4.6 Sprint 3

### 4.6.1 Goal

### 4.6.2 Item 1

### 4.6.3 Item 2

## 4.7 Sprint 3

### 4.7.1 Goal

### 4.7.2 Item 1

### 4.7.3 Item 2

## 4.8 Sprint 4

### 4.8.1 Goal

### 4.8.2 Item 1

### 4.8.3 Item 2

## 4.9 Sprint 5

### 4.9.1 Goal

### 4.9.2 Item 1

### 4.9.3 Item 2

## 4.10 Sprint 6

### 4.10.1 Goal

### 4.10.2 Item 1

### 4.10.3 Item 2

## 4.11 Sprint 7

### 4.11.1 Goal

### 4.11.2 Item 1

### 4.11.3 Item 2

## 4.12 Sprint 8

### 4.12.1 Goal

### 4.12.2 Item 1

### 4.12.3 Item 2

## 4.13 Sprint 9

### 4.13.1 Goal

### 4.13.2 Item 1

### 4.13.3 Item 2

## 4.14 Conclusion

# Testing

## Introduction

## Functional Testing

### Navigation

### CRUD

### Discussion of Functional Testing

## User Testing

## Conclusion

# Project Management

## Introduction

## Proposal

## Requirements

## Design

## Implementation

## Testing

## SCRUM Methodology

## Project Management Tools

### Trello

Description

Include Diagrams

How it worked

### GitHub

Description

How it is used

How it worked in practice

### Journal

## Reflection

# Business Opportunities

## Introduction

### Conclusion

# Conclusion of Major Project

One paragraph on the background, the overall aim and the goals of the project.

One paragraph on the technologies used in the project.

Research

Design

Implementation

Testing

Overall result

Project management

What was learnt

How the project could be further developed

### Your views on the project

### Completing a large software development project

### Working with a supervisor

### Technical skills

### Further competencies and skills

## 8.2 Conclusion

## 