

National College of Ireland

BSc (Honours) in Computing - Evening

Software Development

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Farmers Market

Technical Report

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# Executive Summary

This report exhibits my ideas on how I will design and develop an E-Commerce web site having as its activity oriented around Farmers Market model.

The customers will be able to browse and view the available merchandise for sale that is going to be uploaded by the farmers and producers. To make sure that the goods on sale are real, they will be revised and approved by one of the admins. The shoppers can make the purchase of goods as soon they login into the system of course after they register with us. For the farmers and producers to be able to access our system first they will be screened to make sure that they are part of the local community, then they will be given a trader account where they can upload their products to be able to advertise and sale them.

This project is trying to move the conventional brick and mortar model of buying and selling of goods and produce found in a Farmers Market and bring them online in the Cloud by using modern methods and technologies. By doing so I will give access for more people to this market and not only that, but I will restart a very affected sector of the economy at this time by opening an online version of commerce.

# Introduction

The purpose of this document is to give an overview on the technical details and documentation necessary for me to successfully deploy a state-of-the-art E-Commerce web site. The deployment is on Heroku Cloud provider and is providing a new way of facilitating the trading of local grown and outsourced produces and goods.

## Background

Why did you undertake this project?

## Aims

What does the project aim to achieve?

## Technology

What technology will you use to achieve what you have set out to do and how will you use it?

## Structure

Provide a brief overview of the structure of the document and what is addressed in each section.

# System

## Requirements

All requirements should be verifiable. For example, experienced controllers shall be able to use all the system functions after a total of two hours training. After this training, the average number of errors made by experienced users shall not exceed two per day.

## Functional Requirements

This section lists the functional requirements in **ranked order**. Functional requirements describe the possible effects of a software system, in other words, what the system must accomplish. Other kinds of requirements (such as interface requirements, performance requirements, or reliability requirements) describe how the system accomplishes its functional requirements. Each functional requirement should be specified in a format similar to the following:

Short, imperative sentence stating highest ranked functional requirement.

## Use Case Diagram

## Requirement 1 <Name of requirement in a few words>

The heading of this section should read, e.g., “Requirement 1: User registration” or “Requirements 1: Participant takes test”

## Description & Priority

A description of the requirement and its priority. Describes how essential this requirement is to the overall system.

## Use Case

Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.

**Scope**

The scope of this use case is to …….

**Description**

This use case describes the ………..

**Use Case Diagram**

Diagram should highlight actors and uses cases……..

**Flow Description**

**Precondition**

The system is in initialisation mode……..

**Activation**

This use case starts when an <Actor>…………

**Main flow**

1. The system identifies the ………….
2. The <Actor> …………...(See A1)
3. The system …………..(See E1)
4. The <Actor> ………….

**Alternate flow**

A1 : <title of A1>

1. The system …………..
2. The <Actor> ………….
3. The use case continues at position 3 of the main flow

**Exceptional flow**

E1 : <title of E1>

1. The system …………..
2. The <Actor> ………….
3. The use case continues at position 4 of the main flow

**Termination**

The system presents the next ……….

**Post condition**

The system goes into a wait state

**List further functional requirements here, using the same structure as for Requirement1.**

## Data Requirements

## User Requirements

## Environmental Requirements

## Usability Requirements

## Design & Architecture

Describe the design, system architecture and components used. Describe the main algorithms used in the project. (Note use standard mathematical notations if applicable).

An architecture diagram may be useful. In case of a distributed system, it may be useful to describe functions and/or data structures in each component separately.

## Implementation

Describe the main algorithms/classes/functions used in the code. Consider to show and explain interesting code snippets where appropriate.

## Graphical User Interface (GUI)

Provide screenshots of key screens and explain what can be seen in each one.

## Testing

Describe any testing tools, test plans and test specifications used in the project. Provide evidence for and results of all Unit, Integration and End User testing that is carried out.

## Evaluation

How was the system evaluated and what are the results? This may consist of usage data. It may also include performance evaluations, scalability, correctness, etc. depending on the focus of the project. Quantative results may be reported in tables or figures.

# Conclusions

Describe the advantages/disadvantages, strengths and limitations of the project

# Further Development or Research

With additional time and resources, which direction would this project take?

# References

Please include references throughout your document where appropriate. See [here](https://libguides.ncirl.ie/referencingandavoidingplagiarism) for a guide on referencing from the NCI library.

# Appendices

This section should contain information that is supplementary to the main body of the report.

## Project Plan

## Ethics Approval Application (only if required)

## Reflective Journals

## Other materials used

Any other reference material used in the project for example evaluation surveys etc.