

School of Computing and Mathematics

PRCO303

Final Stage Computing Project

BSc (Hons) Software Engineering

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Project Plante

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Contents

[1. Introduction 3](#_Toc87338172)

[1.1 About Us 3](#_Toc87338173)

[1.2 Introduction 3](#_Toc87338174)

[1.3 Background 3](#_Toc87338175)

[2. Business Case 4](#_Toc87338176)

[2.1 Business Need 4](#_Toc87338177)

[2.1.1 Underlaying Problem 4](#_Toc87338178)

[2.2 Business Objectives 4](#_Toc87338179)

[3. Project Objectives 4](#_Toc87338180)

[4. Chapter 4: Initial Scope 4](#_Toc87338181)

[5. Method of Approach 4](#_Toc87338182)

[6. Project Plan 5](#_Toc87338183)

[6.1 Control Plan 5](#_Toc87338184)

[6.2 Communication plan 5](#_Toc87338185)

[7. Initial Risk List 6](#_Toc87338186)

[8. Initial Quality Plan 6](#_Toc87338187)

[References 7](#_Toc87338188)

# Introduction

## About Us

Students

## Introduction

Planting is something we should encourage our society to do. Plant diseases are a common problem for anyone who loves to plant. especially if they are not experienced in gardening they don't know how to identify or what to do when they are having plant diseases.

how to identify plant diseases using computer vision and help inexperienced people to overcome plant diseases through mobile and web application development.

## Background

What is a plant disease?

Plant disease is defined as the state of local or systemic abnormal physiological functioning of a plant, resulting from the continuous, prolonged ‘irritation’ caused by phytopathogenic organisms (infectious or biotic disease agents)(Tampakaki, Hatziloukas and Panopoulos, 2009)

What causes plant disease?

According to most people, plant pathogens, such as fungi or bacteria are the reason to plant disease. But according to Plant pathologists, it's only half of the reasons. They talk about a combination of three crucial factors that must be present to have plant disease.

The plant disease triangle is the name given to these three main elements.

Host

Environment

Pathogen

the host is the plant itself, the pathogen is the disease-causing organism, Diseases of plants are most usually caused by fungi, but there are other plant pathogenic bacteria, viruses, nematodes, phytoplasmas and viroid too

favourable environment basically means the weather conditions needed for a pathogen to thrive such as Rainfall, Air temperature, soil type and etc(David Moore, Geoffrey D. Robson and Anthony P. J. Trinci, no date)

# Business Case

## Business Need

Currently queries.

### Underlaying Problem

The business need defines the underlying problem that the Client is facing, and which presumably is motivating their desire for change.

## Business Objectives

To modernize the customer service processes and systems in a way that

# Project Objectives

1. To analyze existing customer service processes and procedures and provide recommendations for improvement

# Chapter 4: Initial Scope

1. Business processes (and their shortcomings) will be identified by interview and observation, and (possibly) documented using UML activity diagrams.

# Method of Approach

Software development



Figure 1. A diagram that can explain your project

# Project Plan

## Control Plan

The following PRINCE2 control techniques will be employed: end-Stage reports; end-Stage review (with supervisor); fortnightly Highlight report12; risk management (see Section 7); communication plan (see Section 6.2), and quality plan (see Section 8).

## Communication plan

In addition to ad-hoc supervisor meetings as necessary, planned review/feedback meetings will be held at the end of each stage in order to discuss the end-Stage report, the next Stage plan, and to review any technical deliverables produced during the stage. Feedback meetings will also be held following the submission of the two Interim reports.

|  |  |  |
| --- | --- | --- |
| **6. Project plan** | | |
| **Stage** | **Deadline** | **Products/Deliverables/Outcome** |
| 1.Initiation | 11/11 | PID |
| 2.Investigation and requirements |  |  |
| 3.High level design |  |  |
| 4.Increment1 |  |  |
| 5.Increment2 |  |  |
| 6.Increment3 |  |  |
| 7.testing |  |  |
| 8.final report | 31/3 | PRCO303 Report |

Table 1. Stage 1 Plan

|  |  |  |
| --- | --- | --- |
| **Stage 2 plan** | | |
| **Stage** | **Deadline** | **Products/Deliverables/Outcome** |
| 1.Initiation | 11/11 | PID |
| 2.Investigation and requirements |  |  |
| 3.High level design |  |  |
| 7.testing |  |  |
| 8.final report | 31/3 | PRCO303 Report |

Table 2. Stage 2 Plan

# Initial Risk List

Identified risks and what management mechanisms are using in this project to mitigate risks

|  |  |
| --- | --- |
| **7.Initial risk list** | |
| **Risk** | **Management strategy** |
| The difficulty of finding image datasets | use plant disease datasets currently available on the internet |
| The difficulty of learning and integration issues | creating the skeleton of the system as a prototype as the first stage |
| Schedule overrun |  |
| Difficulty learning |  |
| Technology failure |  |
|  |  |
|  |  |
|  |  |
|  |  |

Table 3. Initial Risk List

# Initial Quality Plan

What quality checks are you going to apply to your products, and when?

|  |  |
| --- | --- |
| **7.Initial quality plan** | |
| **Quality check** | **Strategy** |
|  |  |
| Requirements |  |
| Design validation |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Table 4. Quality Plan

# References

David Moore, Geoffrey D. Robson and Anthony P. J. Trinci (no date) *14.9 Plant disease basics: the disease triangle*, *21st Century Guidebook to Fungi, SECOND EDITION*. Available at: http://www.davidmoore.org.uk/21st\_century\_guidebook\_to\_fungi\_platinum/ch14\_09.htm (Accessed: November 9, 2021).

Tampakaki, A.P., Hatziloukas, E. and Panopoulos, N.J. (2009) “Plant Pathogens, Bacterial,” *Encyclopedia of Microbiology*, pp. 655–677. doi:10.1016/B978-012373944-5.00346-1.