Risk Management Document

for

Online PCR Tests Booking

at The Department of Electrical and Computer Engineering,

The University of the West Indies

St Augustine Campus

Trinidad

Version 0.1

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28/09/2021

**Document Control**

Title: Risk Management Document

Version: 0.1

Date: 28/09/2021

Author(s): Akshay Seedath

***Document Signoff***

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| Nature of Signoff | Person | Signature with Date | Role |
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***Document Change Record***

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| --- | --- | --- | --- |
| Date | Version | Author | Change Details |
| 14 Sept 2021 | 0.0 | Akshay Seedath | * Initial commit * Draft of initial risks |
| 28 Sept 2021 | 0.1 | Akshay Seedath | * Added structure headings to the document * Added Top 10 Risk List, table for resolved risks and mitigation strategies * Added additional risks and redefined existing risks that were ambiguous |

# 1 Introduction

<sample text>

## 1.1 Purpose of Risk Management Plan

<Provide the purpose of the Risk Management Plan>

# 2 Risk Management Procedure

<sample text>

## 2.1 Process

<Summarize the steps necessary for responding to project risk>

## 2.2 Risk Identification

<sample text>

## 2.3 Risk Analysis

<sample text>

### 2.3.1 Qualitative Risk Analysis

<sample text>

### 2.3.2 Quantitative Risk Analysis

<sample text>

## 2.4 Risk Monitoring, Controlling and Reporting

A “Top 10 Risk List” will be used to monitor and update the risks from week to week. The position of risks on the table shall also be tracked as well as their priority depending on their potential impact on the project.

# 3 Risk Plan

The top 10 risks are identified and listed below. <to be completed>  
3.1 Risk Assessment

A Risk Assessment was done where risks that had the potential to disrupt the project were identified, categorized and analyzed by their risk level which is the calculated Risk Exposure (RE) value.

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk Exposure** | **Risk Category** | **Risk** | **Description** |
| Potential | Schedule Creation | Schedule may be unachievable | The current schedule for completion of the project may be too short to achieve a working system with all the stated requirements. |
| Present | Personnel | Unfamiliar and inexperienced with programming languages | The development team has not worked with all the programming languages involved in the project. Learning the languages and then applying it properly to the project will take time and may delay the delivery of the final product. |
| Potential | Product | Developer gold-plating | Some requirements may be improved upon more than what is necessary, or gold-plating, for the current version of the project. The team may also spend more time on requirements with less priority than was intended by management. |
| Present | Personnel | Optimistic development team | Team members have little experience with the software development process and various languages but propose a large scope before commencing the project. This may lead to many incomplete requirements since the scope was too wide. |
| Potential | Schedule creation | Poor estimation of component completion time | Some activities during the development of the software may take longer than expected due to underestimation of completion of the component. This may cause unforeseen delays for other activities (tasks) in the software schedule. |
| Potential | Organization and management | Lack of team structure | Team members may be unfamiliar with each other and may struggle to communicate their challenges and weakness to the team.  Team members may have different levels of competence with developing or testing and some may get left behind while other members push forward.  Members may be placed in a team that does not reflect their strengths. |
| Present | Personnel | Team member lacks proper equipment | A testing team member lacks a personal computer which prevents them from properly engaging in the project. This can cause the member to be left behind or not participate project activities. |
| Potential | Personnel | External risks | Assignments, labs and other third-party interference may cause delays and extend the current timeline for the project. |

## 3.2 Risk Control

Mitigation strategies were made for the “Top 10 Risk List” in Table x as a management plan for dealing with the risk.

<to be ordered to match risk table above>

|  |  |
| --- | --- |
| **Risk** | **Mitigation Strategy** |
| Schedule may be unachievable | Weekly meetings with team and discussion on current projection of project schedule.  Scope reduction of the project may take place to facilitate a more achievable project within the timeframe. |
| Poor estimation of component completion time | Proper planning of tasks between managers and the design team.  Consistent communication between members of the development team to revise and update time estimations with managers. |
| Unfamiliar and inexperienced with programming languages | Have training sessions with the team to give a general overview of the various languages and tools.  Provide resources and links support for the various languages to become more familiar with the language and improve skills. |
| Developer gold-plating | Code and modules shall be reviewed alongside the requirements and check whether there is “extra design features”.  Design a schedule for the developers to prevent them from spending too much time on a specific module.  Use prototyping to intermittently check if gold plating is occurring. |
| Lack of team structure | Team building exercises during scheduled meeting times.  Teamwork shall be encouraged amongst members and roughly measured during weekly meetings by questioning whether all members follow what changes were made during the previous week. |
| Optimistic development team | The realities of the amount of work involved in a project of this type will be explained to the teams during meetings to ensure that they understand the magnitude of work they are expected to encounter. |
| External risks | Weekly surveys shall be conducted and personal issues that may hinder the project schedule shall be noted and addressed as seen as appropriate by HR. |
| Team member lacks proper equipment | Advise the developer to use a computer café.  Give the team member a role that involves less involvement in the tasks of the team.  Other team members should make a summary of changes done so the affected team member does not fall too far behind. |

## 3.3 Top 10 Risk List

Risks were identified that have the potential to disrupt the project and the current schedule. The top then risks were chosen, based on priority, and placed in a “Top 10 Risk List”. The Risk Exposure (RE) is a value that can be calculated by multiplying the probability of the risk occurring by the number of weeks the risk will increase or delay the schedule. The values chosen to calculate RE were based on estimations of the risk without implementing any mitigation strategies.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **This Week** | **Last Week** | **Weeks on List** | **Risk (RE)** | **Risk Resolution Progress** |
| 1 | 1 | 2 | Schedule may be unachievable | - Tasks along with current timeline for completion of project are reviewed after each meeting and currently on track |
| 2 | 2 | 2 | Unfamiliar and inexperienced with programming languages | - Training session was done with team where brief overview of programming languages was covered  - Learning resources were made available for use  - Still too early in project stage to determine if risk is fully resolved |
| 3 | - | 1 | Developer gold-plating | - Concept of gold-plating was explained to the team so they can be aware of the risk  - Developer schedule is being brainstormed |
| 4 | 3 | 2 | Optimistic development team | - Team has been made aware of workload that the project demands |
| 5 | - | 1 | Poor estimation of component completion time | - Team was given a brief explanation of each component and the features needed according to the SRS |
| 6 | 4 | 2 | Lack of team structure | - Morale survey was done by HR to assess current motivation of team and determine future team building activities |
| 7 | 5 | 2 | Team member lacks proper equipment | - Team is encouraged to use comments in development so member does not fall far behind  - The affected member is currently searching for a suitable replacement laptop/PC. |
| 8 | 6 | 2 | External risks | - No consideration has be given at this time |

### 3.3.1 Resolved Risks

The table below shows the resolved risks of the project which have been properly addressed using requirements management strategies.

|  |  |  |  |
| --- | --- | --- | --- |
| Weeks on List | Date Resolved | Risk | Risk Resolution |
|  |  |  |  |