**ASRC**

***<Project Name>***

**Requirements Document**

**Prepared by: *<Team Member>***

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# **1. Summary**

## 

## **1.1. Introduction**

This document will go over in detail about every requirement that is present in the project to create the ***<Project Name>*** version 1.0 application. Within these requirements will be included:

* **Objectives** - the overview, scope and process that is taken to create the application.
* **Project Requirements** - the requirements that the application has which includes the main requirements, preferred requirements and extended goals.
* **Technical Requirements** - the technological requirements as well as the mechanical and non-functional requirements of both users and the system.
* **Testing Requirements** - the process we plan to take and the requirements of testing the application for its functionality.

## **1.2. Project Overview**

This section of the document shall discuss the overall main objectives for the application, the key functions that the project shall need functioning as well as the benefits this application shall bring for the stakeholders.

### **1.2.1. System Objectives**

The main objective of the ***<Project Name>*** application is to ***<fill in main objective of Project Name>***.

### **1.2.2. Key Functions of Application**

The key functions that the development group shall focus on during this project are the ones that we currently consider crucial for the application to be functional and useable by any user. These functions include:

* ***<key function of Project Name>***
* ***<key function of Project Name>***
* ***<key function of Project Name>***
* ***<key function of Project Name>***
* ***…***

These functions are the main functions and exclude any preferred or desired functions that will also be covered in the document.

### **1.2.3. Benefits for Stakeholders**

The application holds many benefits for the stakeholders of this project. ***<List benefits to the user in paragraph form>***

# **2. Objectives**

## **2.1. Introduction**

This section shall quickly and efficiently discuss in detail the objectives of the project to provide an intuitive understanding of what we wish to achieve, this includes:

* The overview of our objectives
* The scope that we are currently holding for this application
* How our process of creating the application shall be conducted.

## **2.2. Overview**

Our main objective for the project is to create an application that can be picked up and easily understood by any user of any age or background. This will require us to create:

* ***<List any objectives that the user should be able to easily perform, understand, access, or acquire information, if applicable. Possible examples are listed below.>***
* The user should be easily able to ***<fill in>***
* The user should understand how ***<fill in>***.
* The user should be able to easily access ***<fill in>***
* The user should be able to clearly understand ***<fill in>***

## **2.3. Scope**

The above-mentioned objectives are what we consider to be enough work that can be completed in the time constraints that we have. There are also extended goals that could also be considered in scope of this project. Some extended goals we have are discussed in [**3.2.2. Extended Goals**](#ProjectRequirements_3_2_2)**.**

## 

## **2.4. Current Process**

In our current process we will use an agile based system to work together on the project. We have a clear understanding of the capabilities of Trello that lets us keep track of what we must do, what is currently in progress and what is already done. We will be able to go back in our project and modify the project requirements if it needs improvement or changes in the objective.

Our team consists of ***<fill in number>*** individuals of which ***<fill in number of developers on the team>*** shall partake in the development of the application, one acts as the product owner, oversees the scrum-based organization and managing the process of the applications completion. The last team member acts as the scrum master, oversees the communication with our sponsors and managing the understanding of what we are trying to achieve with this project.

During this project we plan to use ***<fill in software requirement>*** as our main program to develop on. ***<fill in number>*** of our developers already understand ***<fill in software requirement>*** hence they will be able to provide the team with a clear understanding of how to start using the program and useful tools with in it.

We all have a clear understanding on how to use ***<fill in software repository tool of choice>*** and we plan to use it as our main way to share the project amongst the group. We find it as the easiest and most effective way to share files as well as being a professional tool used in the field.

Our group has several ways and tools to conduct communication. The main tool we shall use is Slack since it provides a quick and simple way to communicate, share files, connecting services and it is also used professionally in our field. We shall also hold meetings about ***<fill in number>*** times a week in online voice chat. As well as meeting in person ***<fill in number>*** times a week when we conduct our fifteen-minute scrum.

We also will dedicate certain work times, about ***<fill in number>*** a week to have everyone get together and as a united group work on the project getting a slew of work done in a shorter amount of time as well as letting every person in the group have an updated understanding of all the things that are implemented in the project.

# **3. Project Requirements**

## **3.1. Main Functional Requirements**

This section shall provide a precise and detailed understanding of the project. It will include all the functional parts of user and system requirements around the key features that must be completed for the project to be considered a functional application.

### **3.1.1. Layout and Basic Attributes**

This section will discuss all the functional requirements regarding the layout and basic attributes of the application.

#### <How does the program startup>

##### <Startup Requirement>

##### <Startup Requirement>

##### <Startup Requirement>

#### <Describe the user interaction>

##### <User optional command line requirements>

##### <User optional command line requirements>

##### <User optional command line requirements>

#### <Describe how the user exits>

##### <User exit option – let the program exit on its own>

##### <User exit option – ctrl-C, ctrl-Z>

#### <Describe how the user modifies default settings>

##### <selecting input directories/files – assume default = current directory>

##### <selecting output file destination – assume default = current directory>

#### <Describe how the program handles file permissions>

##### <user unable to access file/directory – note it in output log file and move on>

##### <user must be able to write to output file destination>

#### <Describe how the user will view output report/log file>

##### <program error log – any errors that occur during program execution>

##### <output report>

### **3.1.2. Network and Databases**

This section of requirements shall go over the specifics needed for how network shall interact with our application as well as how a database needs to be linked.

Every user must have an account which must be saved on a server that is run by the hose of ***<Project Name>.*** For a user to be able to use ***<Project Name>***, get updates from new releases, that user must be connected to the ***<closed/public>*** network using their own account. The program will execute as quickly as the networks speed will allow it.

***<Describe the information stored in a database, if a database requirement exists, where that database that database resides, who can modify it (usually must be an admin), how it gets reset/cleared, how the project interacts with the database>***

### **3.2.2. Extended Goals**

This section shall discuss several extended goals that the project has which are not required for the functioning of the program yet would be highly useful if implemented.

#### <Describe an extended goal>

##### <Extended goal requirement>

##### <Extended goal requirement>

##### <Extended goal requirement>

#### <Describe an extended goal>

##### <Extended goal requirement>

##### <Extended goal requirement>

##### <Extended goal requirement>

#### <Describe an extended goal>

##### <Extended goal requirement>

##### <Extended goal requirement>

##### <Extended goal requirement>

## **3.3. Testing Functionality Requirements**

To test the functionality of this application we shall ***<describe how the testing will be conducted>***

# **4. Technical Requirements**

## **4.1. System and Technological Dependencies**

This application is limited to ***<Software limitation e.g. Linux/Android/Windows>*** therefore we are limited to ***<Software limitation e.g. Linux/Android/Windows>*** development tools for the creation of the application. For that purpose, we chose ***<Software development tool>*** as our main program to develop the application ***<Describe why this software development tool was chosen>***.

## **4.2. Non-Functional User Requirements**

#### <Describe non-functional USER requirement>

##### <Source code size limitations/assumptions>

##### <User cannot clear database>

##### <Number of users of program accessing the database at the same time is not limited>

## **4.3. Non-Functional System Requirements**

#### <Describe non-functional SYSTEM requirement>

#### <Number of accounts that exist that can run the program at the same time is dependent on the amount of space the host wishes to allocate>

# **5. Testing Requirements**

## **5.1. Overview of Testing Process**

To test the functionality of the application one must be able to test all the functionalities included in this requirements document. The functionalities that must be tested include:

* ***<User can access help options>***
* ***<All available program options must be able to work>***
* ***<Users must be able to run the program in the background and continue to do other work>***
* ***<Database functionality/admin only options>***
* ***<File input (reading) – Input functionality>***
* ***<File output (writing)– Input functionality>***

## **5.2. Testing Approach**

The approach to accomplish all the above stated tasks would be to conduct the test ***<where would the testing be performed>*** so that the capabilities can all be tested. All of the properly functioning parts of the application will be recorded, as well as all the limitations that it might have. Some of the requirements that we might have for this test would be:

* ***<new user perspective>***An individual not involved in the process of creating the project and unfamiliar with the functions of the project.
* ***<general user perspective>***Each person that is a part of the test must have ***<Software development tool requirement>*** that has ***<Software development tool version #>*** or higher and must have the application installed on the device where the testing is taking place.
* ***<admin perspective>*** An individual with elevated privileges that has access to additional options.

# **6. What is Considered Done?**

Once all the steps to completing the application are finished, we shall go down a list of things that had to be completed and once all the criteria are met the project on our part shall be officially done. The requirements that need be fulfilled for the completion of this project include:

* This is in fact an application designed for ***<O/S requirement>***.
* All third party software has been approved by the sponsors.
* The application is capable of ***<fill in capability>***.
* The application is capable of ***<fill in capability>***.
* The application is capable of ***<fill in capability>***.
* A detailed design document has been written.
* A unit test that has been conducted and well documented.
* A documented list of all completed functionalities.
* A documented list of all the not completed functionalities.
* All source code must be properly documented and readable by individuals not associated with the conducted project.

# **7. Glossary of Terms**

|  |  |  |
| --- | --- | --- |
| **#** | **Term** | **Description** |
| 1 | ***<Term>*** | ***<Description>*** |
| 2 | ***<Term>*** | ***<Description>*** |