SOFTWARE REQUIREMENT SPECIFICATION

Software Requirement Specification document describes the intended purpose and the environment for the application to be developed as a part of the project and this document specifies how a system has to perform without any unexpected outcomes.

The SURAKSHA application which would be developed will focus to bring Digital Transformation to Indian Police Services by making the services available electronically where the user will be able to login to the application using Adhaar number as login credential.

The project includes the following sections such as

1. **Development Module**
2. **Deployment Module**
3. **Maintenance Module**

1. Development Module

- Development Module describes the programming tools used to create the application. The developer would be connected to the computer system during the process of developing the application SURAKSHA.
- The below section explains the functional requirements and non-functional requirements that are taken into consideration for developing the application.

1.1 Functional Requirements

This module includes the following stages of development:

- **Login Page**
- **Sign up Page**
- **Home Page**

Login Page:

Login page comprises of an Adhaar Number as the user login and it is followed by a user unique password.

It can be used only if the citizen has already registered for the application usage.

Sign up Page:

Sign up page enables the user to register for the usage of SURAKSHA application. The provisos for the registration process are:

- **Name**
- **DOB**
- **Gender**
- **Permanent residential address**
- **Adhaar number**
- **Photo**

All these details must be submitted during the registration.

Home Page:

The home page consists of various modules that the user would want to use based on their emergency. The modules that are enlisted in the application at the preliminary stages are lost sim, robbery, physical assault, accident and location based tracking.

Lost Sim Card Case

Every module consists of two sides,

- **User side**
- **Police side**

The features of user and police side for lost sim card case will be as explained below:

 User side: The user is required to fill details such as Name, Service provider, Sim card number, lost location. Once the user has submitted all the details, the police end receives the request as a pop up box.

 Police side: As soon as the police side receives the request, based on the severity the action would be taken. A unique case ID and tracking ID is generated for each case. Google map API's are used to track down the emergency location.

Hardware specifications

- The system which is used to develop the application is compelled to have the following hardware requirements

System	:	Laptop or Personal Computer
Processor	:	Dual core i3 with 1.70 Gigahertz speed
RAM	:	4 Gigabytes
Memory	:	50 Gigabytes

Software specifications

- The developer will work on the following set of software tools listed below:

Operating System	:	Windows 7 and above
Software	:	Android studio version 2.1.2
Package	:	Java Development Toolkit
Languages	:	Java, XML

1.2 Non Functional Requirements

- The Non Functional requirements for the application that will be developed will have the following factors:

  Compatibility: It is the property where software runs on multiple platforms without any conflicts. The developed application is intended to support multiple Operating Systems like Windows, Linux and Mac Operating System.

  Availability: It is the degree to which the identified system will be in an operable and committable state. SURAKSHA will be available at any time round the clock.

2. Deployment Module

- The Deployment Module in this project is the mobile device, where the developed SURAKSHA application will be made live and the system which runs the application will have the following requirement specifications.

2.1 Functional requirements

Hardware specifications

System	:	Smart phones
Processor	:	Dual core with 1.20 Gigahertz speed
RAM	:	1 Gigabyte
Memory	:	4 Gigabytes to 8 Gigabytes

Software specifications

Operating System	:	Lollipop and above versions
Software	:	SURAKSHA

2.2 Non functional requirements

- **Availability**: Availability of any software gives the meaning that the software runs most of the time. The application SURAKSHA will be available at any random point of time.
- **Reliability**: It is the ability in which a developed tool produces stable and consistent results. The application will be bound to its reliable nature.
- **Portability**: It is task of doing any work necessary to make the computer program run in a new environment. The application will work on Android/Mac/Windows phones.
- **Usability**: It is the ease of use and learnability of software developed. SURAKSHA will have a simple user interface.

3. Maintenance Module

- Maintenance Module is the third part of this project which briefs about the interaction between user and the system which gets reflected on the police system server.
- The specifications required for the server to react as per the application's need are given in the following section.

3.1 Functional Requirements

Hardware specifications

System	:	Laptop or Personal Computer
Processor	:	Dual core i3 with 1.70 Gigahertz speed
RAM	:	4 Gigabytes
Memory	:	1 Terabyte

Software specifications

Operating System	: Windows 7 and above
Server	: Apache 2.4
Database Management System	: Mysql
Integrated Development Environment	: Netbeans 8.1
Languages	: JavaScript, Perl, PHP, SQL

3.2 Non Functional Requirements

Maintenance: It is the process of preserving a state of condition. In the developed application, the details of the user and the police are maintained in a centralized database.

Security: It is the attribute which specifies how safe the system is. SURAKSHA will have a password to login for both user and the police as the security credential.