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| **Software Requirement Specifications**  [Project Name]  Version: [1.0]   |  |  | | --- | --- | | Project Code |  | | Supervisor |  | | Co Supervisor |  | |  |  | | Project Team |  | | Submission Date |  | |

Document History

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| **Version** | **Name of Person** | **Date** | **Description of change** |
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Distribution List

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Document Sign-Off

[Following table will contain sign-off details of document. Once the document is prepared and revised, this should be signed-off by the sign-off authority.

Any subsequent changes in the document after the first sign-off should again get a formal sign-off by the authorities.]

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1. Introduction

The Real-time Shopping Mall Safety and Security System (RSSS) aims to enhance safety and security in shopping malls by providing a comprehensive solution for fire detection, theft prevention, and emergency management. This System Design Specification (SDS) document outlines the overall architecture and design of the RSSS, providing a detailed overview of its components, their interactions, and the design principles that govern its operation.

* 1. Purpose of Document

The purpose of this SRS is to:

* Define the overall system architecture of the RSSS, including hardware and software components and their interactions.
* Guide the system implementation by providing detailed specifications for each component.
* Facilitate system maintenance and upgrades by serving as a reference for future modifications.
  1. Intended Audience

This SRS is intended for:

* System architects and developers responsible for designing and implementing the RSSS.
* Project stakeholders need to understand the system's architecture and design principles.
* System maintenance personnel who will be responsible for future upgrades and modifications.

**1.3 Abbreviations**

* 1. Document Convention

This SDS adheres to the following conventions:

* Components are referred to using consistent naming conventions.
* Diagrams are labeled and annotated for clarity.
* Technical terms are defined and explained.

1. Overall System Description
   1. Project Background
   2. Project Scope
   3. Not In Scope
   4. Project Objectives
   5. Stakeholders
   6. Operating Environment
   7. System Constraints
   8. Assumptions & Dependencies
2. External Interface Requirements
   1. Hardware Interfaces
   2. Software Interfaces
   3. Communications Interfaces
3. Functional Requirements
   1. Functional Hierarchy
   2. Use Cases
      1. Login/Signup use case

use-case diagram

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **UC-01: Sign Up on Mobile Device** | | | | |
| **Use case Id:** | | UC-01 | | |
| **Actors:**  User | | | | |
| **Feature:** Actor wants to make account to use application | | | | |
| **Pre-condition:** | | Android Phone  Internal Connection | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | User opens the application by tapping on application icon. | | | **2.** System provides options to select between sign in and sign up |
| **3.** | User taps on Sign up button. | | | **4.** System opens the sign up form. |
| **5.** | User fills the form fields | | |  |
| **6.** | User submit the form | | | **7.** System check all the fields for errors and update database for new account |
| **Alternate Scenarios:** | | | | |
| **5a:** User entered the wrong data.  **6a:** The error message will be displayed.  **7a:** Application will ask user to re-enter data on error fields. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
|  | Upon completion of this use case, the user can login to use application feature. | | | |
| **Use Case Cross referenced** | | | Login | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **UC-02: Login** | | | | |
| **Use case Id:** | | UC-02 | | |
| **Actors:**  User | | | | |
| **Feature:** Actor wants to sign in for access the application features | | | | |
| **Pre-condition:** | | Sign up | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | User open the application | | | **2.** System provides options to select between sign in and sign up |
| **3.** | User tap on Login button | | | **4.** System open the login form |
| **5.** | User fill the login form by entering User ID and Password | | | **6.** System will verify and validate the given user ID and password. |
| **7.** | User gets access to the application. | | |  |
| **Alternate Scenarios:** | | | | |
| **5a:** User entered the wrong ID or password.  **6a:** The error message will be displayed.  **7a:** Application will ask user to re-enter ID and password. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
|  | Upon completion of this use case, the user’s account will be displayed to the user. | | | |
| **Use Case Cross referenced** | | | Set desired Location, Set Electronic Appliance, Make Gesture | |

1. Non-functional Requirements
   1. Performance Requirements
   2. Security Requirements
   3. User Documentation
2. References

N/A

1. Appendices

N/A