**PROJECT TITLE**

**Software Requirement Specifications (SRS)**

**<Version 1.0>**

**<***Guideline: Change the Version No. inside document in Header also***>**

Course Name (Course Code)

Degree

**MASTER OF COMPUTER APPLICATION**

**BACHELOR OF TECHNOLOGY (CSE)**

**BACHELOR OF COMPUTER APPLICATION**

**BACHELOR OF COMPUTER SCIENCE (Hons.)**

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| PROJECT GUIDE:  **Project Guide Name** | SUBMITTED BY:  **Student Name (Student ID)**  **Student Name (Student ID)**  **Student Name (Student ID)** |

Month, YYYY



**FACULTY OF ENGINEERING & COMPUTING SCIENCES**

**TEERTHANKER MAHAVEER UNIVERSITY, MORADABAD**

**Revision History**

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| <Project ID> Team | DD-MM-YY | initial draft | 1.0 draft |
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# Introduction

*<Guideline: The introduction to the Software Requirement Specification (SRS) document should provide an overview of the complete SRS document. While writing this document please remember that this document should contain all of the information needed by a software engineer to adequately design and implement the software product described by the requirements listed in this document. (Note: the following subsection annotates are largely taken from the IEEE Guide to SRS).>*

## Purpose

*<Guidelines: Identify the purpose of this SRS and its intended audience. In this subsection, describe the purpose of the particular SRS and specify the intended audience for the SRS.*

*Example:*

*This System Requirements Specifications (SRS) document provides a basis for the design and development details of a web-based Monitoring Plan System. The main purpose of the document is to describe system requirements in detail so that this document becomes guideline for product development team, functional team and core user group.>*

## Scope of the Work

*<Guidelines: Mention what will be done (In-Scope) and what will not be done (Out of Scope)*

*In this subsection:*

1. *Identify the software product(s) to be produced by name*
2. *Explain what the software product(s) will, and, if necessary, will not do*
3. *Describe the application of the software being specified, including relevant benefits, objectives, and goals*
4. *Be consistent with similar statements in higher-level specifications if they exist*

*This should be an executive-level summary. Do not enumerate the whole requirements list here.>*

## Definitions, Acronyms, and Abbreviations

*<Guidelines: Provide the definitions of all terms, acronyms, and abbreviations required to properly interpret the SRS. This information may be provided by reference to one or more appendices in the SRS or by reference to documents. This information may be provided by reference to an Appendix >*

|  |  |
| --- | --- |
| **Abbreviation** | **Description** |
|  |  |
|  |  |
|  |  |
|  |  |

## References

*<Guidelines: In this subsection:*

1. *Provide a complete list of all documents referenced elsewhere in the SRS*
2. *Identify each document by title, report number (if applicable), date, and publishing organization*
3. *Specify the sources from which the references can be obtained.*

*This information can be provided by reference to an appendix or to another document. If the application uses specific protocols or RFC’s, then reference them here so designers know where to find them.*>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S#** | **Reference Details** | **Owner** | **Version** | **Date** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

# Overall Description

*<Guidelines: Describe the general factors that affect the product and its requirements. This section does not state specific requirements. Instead, it provides a background for those requirements, which are defined in section 3, and makes them easier to understand*. *In a sense, this section tells the requirements in plain English for the consumption of the customer. Section3 will contain a specification written for the developers.>*

## Product Perspective

*<Guidelines: Put the product into perspective with other related products. If the product is independent and totally self-contained, it should be so stated here. If the SRS defines a product that is a component of a larger system, as frequently occurs, then this subsection relates the requirements of the larger system to functionality of the software and identifies interfaces between that system and the software. If you are building a real system, compare its similarity and differences to other systems in the marketplace. If you are doing a research-oriented project, what related research compares to the system you are planning to build.*

*A block diagram showing the major components of the larger system, interconnections, and external interfaces can be helpful. This is not a design or architecture picture. It is more to provide context, especially if your system will interact with external actors. The system you are building should be shown as a black box. You must show the Context Diagram (level 0)>*

## Product Functions

*<Guidelines: This section describes the functionality of the system in the language of the customer. What specifically does the system that will be designed have to do? Do remember this is a description of what the system needs to do and NOT how you are going to build it. Details of each function should be described in Section 3.*

*For clarity:*

1. *The functions should be organized in a way that makes the list of functions understandable to the customer or to anyone else reading the document for the first time.*
2. *Textual or graphic methods can be used to show the different functions and their relationships. Such a diagram is not intended to show a design of a product but simply shows the logical relationships among variables.*

*>*

## User Characteristics

*<Guidelines: Describe those general characteristics of the intended users of the product including educational level, experience, and technical expertise. Do not state specific requirements but rather provide the reasons why certain specific requirements are later specified in section 3.*

*What is it about your potential user base that will impact the design? Their experience and comfort with technology will drive UI design. Other characteristics might actually influence internal design of the system.>*

## General Constraints

*<Guidelines: Provide a general description of any other items that will limit the developer's options, if any. These can include:*

1. *Regulatory policies*
2. *Hardware limitations (for example, signal timing requirements)*
3. *Interface to other applications*
4. *Parallel operation*
5. *Audit functions*
6. *Control functions*
7. *Higher-order language requirements*
8. *Signal handshake protocols (for example, XON-XOFF, ACK-NACK)*
9. *Reliability requirements*
10. *Criticality of the application*
11. *Safety and security considerations*

*>*

## Assumptions and Dependencies

*<Guidelines: List each of the factors that affect the requirements stated in the SRS. These factors are not design constraints on the software but are, rather, any changes to them that can affect the requirements in the SRS. For example, an assumption might be that a specific operating system would be available on the hardware designated for the software product. If, in fact, the operating system were not available, the SRS would then have to change accordingly.>*

# Specific Requirements

*<Guidelines: This section contains all the software requirements at a level of detail sufficient to enable designers to design a system to satisfy those requirements, and testers to test that the system satisfies those requirements. Throughout this section, every stated requirement should be externally perceivable by users, operators, or other external systems. These requirements should include at a minimum a description of every input (stimulus) into the system, every output (response) from the system and all functions performed by the system in response to an input or in support of an output. Also describe all test cases related to the function.*

*This section reiterates section 2, but is for developers not the customer. The customer buys in with section 2, the designers use section 3 to design and build the actual application.*

*Use proper terminology:*

*The system shall… A required, must have feature*

*The system should… A desired feature, but may be deferred till later*

*The system may… An optional, nice-to-have feature that may never make it to implementation.*

*List every piece of information that is required so the designers can build the right UI and data tables.*

*It may be appropriate to partition the functional requirements into sub-functions or sub-processes. This does not imply that the software design will also be partitioned that way.>*

## <Name of Function 1>

### Description

*<Guidelines: Mention in detail what this function will do>*

### Inputs

*<Guidelines: Mention in detail all inputs coming to this function, if any>*

### Processing

*<Guidelines: Describe processing logic for this function, like where the inputs taken will be used, from which table the data will be fetched and how etc.>*

### Outputs

*<Guidelines: Mention in detail all outputs going out from this function, if any>*

### Error Handling

*<Guidelines: Mention in detail how the errors will be handled, if any>*

### Test Cases for <Function 1>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Title** | **Test Case Description** | **Pre-condition, if any** | **Expected Results** |
| TC001 |  |  |  |  |
| TC002 |  |  |  |  |
| TC003 |  |  |  |  |

## <Name of Function 2>

### Introduction

*<Guidelines: Mention in detail what this function will do>*

### Inputs

*<Guidelines: Mention in detail all inputs coming to this function, if any>*

### Processing

*<Guidelines: Describe processing logic for this function, like where the inputs taken will be used, from which table the data will be fetched and how etc.>*

### Outputs

*<Guidelines: Mention in detail all outputs going out from this function, if any>*

### Error Handling

*<Guidelines: Mention in detail how the errors will be handled, if any>*

### Test Cases for <Function 2>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Title** | **Test Case Description** | **Pre-condition, if any** | **Expected Results** |
| TC004 |  |  |  |  |
| TC005 |  |  |  |  |
| TC006 |  |  |  |  |

## Design Constraints

*<Guidelines: Specify design constrains imposed by other standards, company policies, hardware limitation, etc. that will impact this software project. Else say “None”>*

**Appendix A**

**Data Flow Diagram (DFD)**

**(Mandatory)**

**Appendix B**

**Entity-Relationship Diagram (ERD)**

**(Mandatory)**

**Appendix C**

**Use-Case Diagram (UCD)**

**(Optional)**

**Appendix D**

**Data Dictionary (DD)**

**(Mandatory)**

**Example:**

**User Table (USR)**

|  |  |  |
| --- | --- | --- |
| **Fields** | **Data type** | **Description** |
| USR-Name | Text | Admin name |
| USR-Password | Text | Admin password |
| USR-Contact-No | Number | Admin Contact |
| USR-Address | Text | City |

**Supplier Table (SUPP)**

|  |  |  |
| --- | --- | --- |
| **Fields** | **Data type** | **Description** |
| SUPP-ID | Number | Supplier ID |
| SUPP-Name | Text | Supplier Name |
| SUPP-Address | Text | Supplier Address |
| SUPP-Contact | Number | Supplier Contact |
| SUPP-Credit-Limit | Number | Credit Limit |

**Appendix E**

**Screen Shots**

*<Guidelines: Show all Pages>*

**Home Page:**

