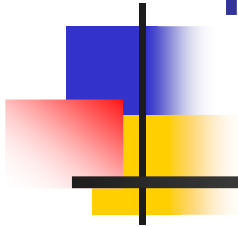


# Software Requirement Specification



# Software Requirements Specification (SRS) template

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# SRS template

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# SRS explained

- **1.0 INTRODUCTION**

This document specifies all the requirements for

- **1.1 Purpose**

The purpose of the ...is to ....

The system should assist ....

The intended audience for this document is ...

This specification describes .....

- **1.2 Scope**

This document applies only to .....

This specification is not concerned with .....

# SRS explained

## ■1.3 Definitions, Acronyms, and Abbreviations

SRS - Software Requirements Specifications

IEEE - Institute of Electrical and Electronic Engineering

## ■1.4 Reference

[1] IEEE 830-1993: IEEE Recommended Practice for Software Requirements Specifications" IEEE Standards Collection, IEEE, 1997.

## ■1.5 Overview

In the following sections of this specification.....will be presented.

In Section 2, the general product and its functions will be introduced.

# SRS explained

In Section 3, all detailed requirements will be specified and grouped.

In Appendix .....

## **2.0 GENERAL DESCRIPTION**

### **2.1 Product Perspective**

This system allows stakeholders to.....

The system will display.....

The system will help .....

The system provides information about ....

### **2.2 Product Functions**

The system provides the following functions:

# SRS explained

## ■ 2.3 User Characteristics

The users of the system are:

- ⑩ **Level of Users' Computer Knowledge**
- ⑩ **Level of Users' Business Knowledge**
- ⑩ **Frequency of Use**

## ■ 2.4 General Constraints

The system will support ....

The system will not allow .....

## ■ 2.5 Assumption and Dependencies

This system relies on .....

The system must have a satisfactory interface and .....

# Section 3 of SRS

- **SPECIFIC REQUIREMENTS**

- **3.1 Functional Requirements**

- **3.1.1 Unit Registration**

- The unit registration requirements are concerned with functions regarding unit registration which includes students selecting, adding, dropping, and changing a unit.
  - **SRS-001 (3.1.1.1):**
    - The system shall allow the user to register a unit.
  - **SRS-002 (3.1.1.2):**
    - STS shall allow the user to delete a unit if the user has chosen to drop that unit.
  - **SRS-003 (3.1.1.3):**
    - STS shall check if a unit has been filled by enough registered students.



# SRS functional reqs

- **SRS-004 (3.1.1.4):**
- STS shall allow the user to add his/her name to the unit waiting list if the user wants to register in a unit which has been filled already with enough registered students.
- **SRS-005 (3.1.1.5):**
- STS shall automatically register the unit for the user who is the first one on the waiting list if a vacancy appears for that unit.
- **SRS-006 (3.1.1.6):**
- STS shall allow the user to change practical session(s) within a unit.
- **SRS-007 (3.1.1.7):**
- STS shall allow the user to change tutorial session(s) within a unit.

# Functional parent reqs broken into many child-reqs.

- **3.1.2 Retrieving and Displaying Unit Information**
- The retrieving and displaying requirements are concerned with how information is retrieved and presented to the user.
- **SRS-014 (3.1.2.1):**
- The system shall allow users to enter the following selection criteria to retrieve unit information: by unit code, by unit number, by title of unit, by weight of unit (credit points).
- **OR** by unit code **(3.1.2.1.1)** , by unit number **(3.1.2.1.2)** , by title of unit **(3.1.2.1.3)** , by weight of unit (credit points) **(3.1.2.1.4)**.

# Design Constraints (3.2)

- **3.2 Design Constraints**
- **SRS-031 (3.2.1):**
  - STS shall store and retrieve persistent data.
- **SRS-032 (3.2.2):**
  - STS shall support PC and/or UNIX platforms.
- **SRS-033 (3.2.3):**
  - STS shall be developed using the JAVA programming language

# Non-functional requirements

- **3.3 Non-Functional Requirements**
- **SRS-034 (3.3.1):**
  - STS shall respond to any retrieval in less than 5 seconds.
- **SRS-035 (3.3.2):**
  - STS shall generate a report within 1 minute.
- **SRS-036 (3.3.3):**
  - STS shall allow the user to remotely connect to the system.
- **SRS-041 (3.3.8):**
  - The system will be accompanied by a comprehensive user manual.

# Other SRS template for section 3

- **3. Specific Requirements**
- **3.1 External Interface Requirements**
- 3.1.1 User Interfaces
- 3.1.2 Hardware Interfaces
- 3.1.3 Software Interfaces
- 3.1.4 Communication Interfaces
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# Other SRS template for section 3

- **3.3 Performance Requirements**
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- **3.5 Software System Attributes**
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  - 3.5.2 Availability
  - 3.5.3 Security
  - 3.5.4 Maintainability
  - 3.5.5 Portability
  - 3.5.6 Reusability
  - 3.5.7 Usability 3.5.8 Other Factors .....
- **3.6 Other Requirements**
  - 3.6.1 Database ...

# Safety and security issues

- **3.5.3 Security**

- The security requirements are concerned with security and privacy issues.

**SRS-029:**

- VSS shall provide staff ID and password verification protection to protect from unauthorized use of the system.

**SRS-030:**

- VSS shall allow the store manager to add, remove and modify staff ID and passwords as required.

# The attributes for a “good” SRS are:

- ⑩ Requirements must be correct.
- ⑩ Requirements must be feasible. One must be able to implement each requirement within the known capabilities and limitations of the system and its environment.
- ⑩ Requirements are necessary for the project, and must be prioritised.
- ⑩ Requirements must be unambiguous, verifiable, complete, consistent, modifiable, and traceable.



# Change management

- Possible scenarios that are considered volatile
- Some requirements change quicker than others (eg.tax regulations)
- Domain dependent volatility
- Dependence on external environmental factors (market changes)
- How handle change:
  - Consider plan of action if changes occur to the requirements
  - Consider the criticality of the requirement
  - Consider which requirements are affected
  - Consider risks posed by change
  - Suggest change management strategies