# System and Software Requirements Definition (SSRD)

**<Put your project name>**

**<put your team name>**

**<current version>**

**Prepared by <author>**

**<organization>**

**<date created or modified>**

# Version History

| Date | Author | Version | Changes made | Rationale |
| --- | --- | --- | --- | --- |
| <mm/dd/yy> | <name> | <version number> | <put where you modify> | <write the reason for changes> |
| <mm/dd/yy> | <name> | <version number> | <put where you modify> | <write the reason for changes> |
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### Introduction

#### Purpose

<Identify the product whose software requirements are specified in this document, including the revision or release number. Describe the scope of the product that is covered by this SRD, particularly if this SRD describes only part of the system or a single subsystem>

#### References

<List any other documents or Web addresses to which this SRS refers. These may include user interface style guides, contracts, standards, system requirements specifications, use case documents, or a vision and scope document. Provide enough information so that the reader could access a copy of each reference, including title, author, version number, date, and source or location.>

### Product Requirements

#### Product Functions

<Summarize the major functions the product must perform or must let the user perform. Details will be provided in Section 3, so only a high level summary (such as a bullet list) is needed here. Organize the functions to make them understandable to any reader of the SRD. A picture of the major groups of related requirements and how they relate, such as a top level data flow diagram or object class diagram, is often effective.>

#### Development Requirements

##### Tools Requirements

<write the tool requirements for the product that will be built in this project>

##### Language Requirements

<write the tool requirements for the product that will be built in this project>

##### Computer Hardware Requirements

<Describe the hardware environment in which the software will operate, including the hardware platform, hardware specifications.

##### Computer Software Requirements

<Describe the software environment in which the software will operate, including the operating system and versions, and any other software components or applications with which it must peacefully coexist.>

##### Computer Communication Requirements

<Describe the communication that the computer hardware will be on.>

#### Deployment Requirements

Table : <put the deployment requirement name>

|  |  |
| --- | --- |
| Project Requirement: | <put the deployment requirement> |
| Description: | <explain in detailed for deployment requirement> |
| Priority: | <assign priority level> |

#### Transition Requirements

<List the user documentation components (such as user manuals, on-line help, and tutorials) that will be delivered along with the software. Identify any known user documentation delivery formats or standards.>

Table : <put the transition requirement name>

|  |  |
| --- | --- |
| Project Requirement: | <put the transition requirement> |
| Description: | <explain in detailed for transition requirement> |
| Priority: | <assign priority level> |

#### Design and Implementation Constraints

<Describe any items or issues that will limit the options available to the developers. These might include: corporate or regulatory policies; hardware limitations (timing requirements, memory requirements); interfaces to other applications; specific technologies, tools, and databases to be used; parallel operations; language requirements; communications protocols; security considerations; design conventions or programming standards (for example, if the customer’s organization will be responsible for maintaining the delivered software).>

#### Assumptions and Dependencies

<List any assumed factors (as opposed to known facts) that could affect the requirements stated in the SRD. These could include third-party or commercial components that you plan to use, issues around the development or operating environment, or constraints. The project could be affected if these assumptions are incorrect, are not shared, or change. Also identify any dependencies the project has on external factors, such as software components that you intend to reuse from another project, unless they are already documented elsewhere (for example, in the vision and scope document or the project plan).>

### Functional Requirements

Table : <functional requirement name>

|  |  |
| --- | --- |
| Capability Requirement: | <put one sentence about functional requirement> |
| Priority: | <assign priority> |
| Description: | <write the detailed descriptions for this functional requirement> |
| Input(s): | <put all the possible inputs> |
| Source(s): | <put where the input comes from> |
| Output(s): | <put all the possible outputs> |
| Destination(s): | <put where the input goes to> |
| Precondition(s): | <describe the pre-conditions> |
| Post condition(s): | <describe the post-conditions> |

### System Interface Requirements

#### User Interfaces

<Describe the logical characteristics of each interface between the software product and the users. This may include sample screen images, any GUI standards or product family style guides that are to be followed, screen layout constraints, standard buttons and functions (e.g., help) that will appear on every screen, keyboard shortcuts, error message display standards, and so on. Define the software components for which a user interface is needed. Details of the user interface design should be documented in a separate user interface specification.>

Table : <put the requirement name>

|  |  |
| --- | --- |
| System Interface Requirement: | <put the simple sentence about the system interface requirement> |
| Description: | <put the detailed explanations about the system interface requirement> |
| Priority: | <assign the priority for this requirement> |

#### Hardware Interfaces

<Describe the logical and physical characteristics of each interface between the software product and the hardware components of the system. This may include the supported device types, the nature of the data and control interactions between the software and the hardware, and communication protocols to be used.>

#### Communication Interfaces

<Describe the requirements associated with any communications functions required by this product, including e-mail, web browser, network server communications protocols, electronic forms, and so on. Define any pertinent message formatting. Identify any communication standards that will be used, such as FTP or HTTP. Specify any communication security or encryption issues, data transfer rates, and synchronization mechanisms.>

#### Software Interfaces

<Describe the connections between this product and other specific software components (name and version), including databases, operating systems, tools, libraries, and integrated commercial components. Identify the data items or messages coming into the system and going out and describe the purpose of each. Describe the services needed and the nature of communications. Refer to documents that describe detailed application programming interface protocols. Identify data that will be shared across software components. If the data sharing mechanism must be implemented in a specific way (for example, use of a global data area in a multitasking operating system), specify this as an implementation constraint.>

### Nonfunctional Requirements

#### Performance Requirements

<If there are performance requirements for the product under various circumstances, state them here and explain their rationale, to help the developers understand the intent and make suitable design choices. Specify the timing relationships for real time systems. Make such requirements as specific as possible. You may need to state performance requirements for individual functional requirements or features.>

Table : <put the performance requirement>

|  |  |
| --- | --- |
| Performance Requirement: | <performance requirement> |
| Description: | <explain in details for the performance requirement> |
| Priority: | <priority level> |
| Desired Level: | <put the value of the desired performance> |
| Accepted Level: | <put the value of the accepted performance> |

#### Safety Requirements

<Specify those requirements that are concerned with possible loss, damage, or harm that could result from the use of the product. Define any safeguards or actions that must be taken, as well as actions that must be prevented. Refer to any external policies or regulations that state safety issues that affect the product’s design or use. Define any safety certifications that must be satisfied.>

#### Security Requirements

<Specify any requirements regarding security or privacy issues surrounding use of the product or protection of the data used or created by the product. Define any user identity authentication requirements. Refer to any external policies or regulations containing security issues that affect the product. Define any security or privacy certifications that must be satisfied.>

#### Software Quality Attributes

<Specify any additional quality characteristics for the product that will be important to either the customers or the developers. Some to consider are: adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability. Write these to be specific, quantitative, and verifiable when possible. At the least, clarify the relative preferences for various attributes, such as ease of use over ease of learning.>

### Appendices

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRD.>