Arithmetic Expression Evaluator

Version <1.0>

Revision History

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# Introduction

The following document will capture the complete software requirements for the system. It will be referred to throughout the *Arithmetic Expression Evaluator* project.

## Purpose

The purpose of the Software Requirements Specifications (SRS) document is to detail the external needs of the application. It describes all nonfunctional requirements along with interfaces, constraints, and functionality. It will be referred to throughout the project to ensure organization.

## Scope

This SRS applies to the *Arithmetic Expression Evaluator* application. It is associated with the Use-Case model for the entire system and its functions. The organization of software requirements and functionality revolve around this document.

## Definitions, Acronyms, and Abbreviations

See *Glossary* in Appendices

See *Project Glossary* in Annexes of *Software Development Plan*

## References

* Software Development Plan – 9/22/2023, CAVJAC Group

## Overview

The rest document will capture the complete software requirements for the system. It contains many aspects of the project such as interfaces and functionality. It is organized by specification, starting general is an overview of the project and ending with specific requirements.

# Overall Description

[This section of the **SRS** describes 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 detail in Section 3, and makes them easier to understand. Include such items as:

## Product perspective

### System Interfaces

### User Interfaces

### Hardware Interfaces

### Software Interfaces

### Communication Interfaces

### Memory Constraints

### Operations

## Product functions

## User characteristics

## Constraints

## Assumptions and dependencies

## Requirements subsets

# Specific Requirements

[This section of the **SRS** contains all software requirements to 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. When using use-case modeling, these requirements are captured in the Use Cases and the applicable supplementary specifications. If use-case modeling is not used, the outline for supplementary specifications may be inserted directly into this section, as shown below.]

## Functionality

[This section describes the functional requirements of the system for those requirements that are expressed in the natural language style. For many applications, this may constitute the bulk of the **SRS** package and thought should be given to the organization of this section. This section is typically organized by feature, but alternative organization methods may also be appropriate; for example, organization by user or organization by subsystem. Functional requirements may include feature sets, capabilities, and security.

Where application development tools, such as requirements tools, modeling tools, and the like, are employed to capture the functionality, this section of the document would refer to the availability of that data, indicating the location and name of the tool used to capture the data.]

### <Functional Requirement One>

[The requirement description.]

## Use-Case Specifications

[In use-case modeling, the use cases often define the majority of the functional requirements of the system, along with some non-functional requirements.]

## Supplementary Requirements

[Supplementary Specifications capture other requirements, e.g., non-functional requirements and development constraints, that are not included in the use cases and non-functional requirements.]

# Classification of Functional Requirements

[List, usually in a table, all functional requirements and order them by Type (Essential, Desirable, and Optional) or by order of appearance in the document.]

|  |  |
| --- | --- |
| **Functionality** | **Type** |
| ... |  |
| ... |  |

# Appendices

[When appendices are included, the **SRS** should explicitly state whether or not the appendices are to be considered part of the requirements]