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**Software Design**

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# Introduction

## Purpose

Identify the purpose of this SDD and its intended audience. (e.g. “This software design

document describes the architecture and system design of XX. ….”).

## Scope

Provide a description and scope of the software and explain the goals, objectives and benefits

of your project. This will provide the basis for the brief description of your product.

## Overview

Provide an overview of this document and its organization.

## References

This section is optional.

List any documents, if any, which were used as sources of information for the test plan.

## Definitions and Acronyms

This section is optional.

Provide definitions of all terms, acronyms, and abbreviations that might exist to properly

interpret the SDD. These definitions should be items used in the SDD that are most likely not

known to the audience.

# System Overview

Give a general description of the functionality, context and design of your project. Provide any

background information if necessary.

# System Architecture

## Architectural Design

Develop a modular program structure and explain the relationships between the modules to

achieve the complete functionality of the system. This is a high level overview of how

responsibilities of the system were partitioned and then assigned to subsystems. Identify each

high level subsystem and the roles or responsibilities assigned to it. Describe how these

subsystems collaborate with each other in order to achieve the desired functionality. Don’t go

into too much detail about the individual subsystems. The main purpose is to gain a general

understanding of how and why the system was decomposed, and how the individual parts

work together. Provide a diagram showing the major subsystems and data repositories and

their interconnections. Describe the diagram if required.

## High Level Design

Provide a high level view of the components involved in the architectural design. Supplement with text as needed. You may choose to give a functional description or an object oriented

description.

For a functional description, put toplevel

data flow diagram (DFD) and structural

decomposition diagrams. For an OO description, put subsystem model, object diagrams,

generalization hierarchy diagram(s) (if any), aggregation hierarchy diagram(s) (if any),

interface specifications, and sequence diagrams here.

## Design Alternatives

Discuss the rationale for selecting the architecture described in 3.1 including critical issues

and trade/offs that were considered. You may discuss other architectures that were

considered, provided that you explain why you didn’t choose them.

# Low Level Design

In this section, we take a closer look at what each component does in a more systematic way. Describe the component in detail.

## Module 1

For each module provide the detailed design, could be the function API, input outputs, data structure

## Module 2

For each module provide the detailed design, could be the function API, input outputs, data structure

# Test Strategy

Overview on how the entire software is planned to be tested and validated

## Test Setup

Detailed description of the environment and components for testing.

# Assumptions

Any design assumptions taken for the project.

# Appendices

This section is optional.

Appendices may be included, either directly or by reference, to provide supporting details that could aid in the understanding of the Software Design Document.

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