Computer Science and Engineering

<Project Name>

Software Design Description (SDD)

Version 1.0

Document Number: SDD-001

Team Number

Team Members (Name and NET-ID)

REVIEW AND APPROVALS

Printed Name and Title	Function (Author, Reviewer, Approval)	Date	Signature
Professor Strauss	Author	Spring 2019	

REVISION LEVEL

Date	Revision Number	Purpose
Spring 2019	Version 1.0	Initial Release

Table 0f Contents

1. INTRODUCTION

1.1 Purpose

The purpose of this document is to define the contents of the Software Design Description (SDD). The SDD documents the System Architecture and the Detailed design.

The document is used to communicate overall quantitative and qualitative system characteristics to operations management, technical support, training, and operators.

Include the intended audience for the document.

1.2 Scope

This document may describe software-only products, hardware, or a combination of each. However, hardware only products are not described in this standard. This standard is applicable to all forms of software products media, including application, infrastructure, embedded systems, and operational scripts. It is formally delivered as part of the software product release package.

1.3 Identification

This paragraph contains the system name, subsystem (if applicable), and release number to which this operations document pertains.

1.4 Document Summary

Summary of the Software Design Document.

1.5 System Overview

Brief description of the system.

1.6 Document Overview

Format and content

Title Page (formatted the same as standard cover)

Review/Approval Signatures

Table of Revisions (revision number, date, purpose)

Approval page (if required)

Preface (information the reader should be familiar with)

Table of Contents

List of Figures

2. REFERENCE DOCUMENTS

Full standard bibliographic reference format and must include Project Proposal, RAS and SPMP.

3. SYSTEM WIDE DESIGN DECISIONS

3.1 Software Component Architectural Diagram

3.2 Software Architecture General Description

3.3 Software Item Components

3.4 Component Interface Identification

3.5 Software Component Concept of Execution

4. SOFTWARE ITEM DETAILED DESIGN

This section is also referred to as the Process Architecture

4.1 Structure

4.1.1 Software Unit Detailed Design

Class or Module Diagrams

4.2 Static Relationship of Software Unit

4.2.1 Run-time Object Instances

Shows the relationship between object instantiations – for example threads, queuing mechanisms

4.3 Behavior

Describes the dynamic behavior of the system

4.3.1 Sequence Interaction Diagrams

One diagram for each Use Case

4.3.2 Collaboration Diagrams

4.3.3 Activity Diagrams

4.3.4 State Diagrams

4.3.5 Event Diagrams

4.4 Concept of Execution

4.5 Interface Design

4.5.1 Unique identifier of Interface

4.5.2 Interface Diagrams

5. IMPLEMENTATION ARCHITECTURE (NOT REQUIRED)

5.1 All Active and Passive Classes Assigned to Components

Includes all files (.CPP, Header, DLL, EXE, etc.) and middleware

5.2 Diagrams of Physical Packaging of Logical Components

6. DEPLOYMENT ARCHITECTURE

6.1 Physical Deployment Architecture Diagram

7. DICTIONARIES

See dictionaries.pdf on NYU Classes

The dictionaries can be placed her or in the appendix

8. SOFTWARE ITEM COMPUTER RESOURCE UTILIZATION

9. REQUIREMENTS TRACEABILITY

9.1 Software Component-Level Requirements Traceability

10. SYSTEM DESIGN TESTING

11. RATIONALE

12. NOTES

13. APPENDICES

13.1 Dictionaries

The dictionaries can be placed here or in section 7

13.2 UML diagrams

If not included in the body of the document

Use Case diagram

Code is in posted in a separate document

13.3 Schedule Tracking

Time (hours)

Artifact or Deliverable	Who (individual and team)	Estimated	Actual	Difference
SPMP	Individual members			
	Team summary			

Artifact or Deliverable	Who (individual and team)	Estimated	Actual	Difference
RAS	Individual members			
	Team summary			

Artifact or Deliverable	Who (individual and team)	Estimated	Actual	Difference
SDD	Individual members			
	Team summary			

Cumulative

Who (individual and Team)	Estimated	Actual	Difference
Each Individual			
Team summary			

13.4 Defect Tracking

Counts

Artifact or Deliverable	Who (individual and team)	Estimated	Actual	Difference
SPMP	Individual members			
	Team summary			

Artifact or Deliverable	Who (individual and team)	Estimated	Actual	Difference
RAS	Individual members			
	Team summary			

Artifact or Deliverable	Who (individual and team)	Estimated	Actual	Difference
SDD	Individual members			
	Team summary			

Cumulative

Who (individual and team)	Estimated	Actual	Difference
Individual members			
Team summary			

- Gantt or Microsoft Project Schedule