Department of Computer Science & Engineering
The University of Texas at Arlington

Detailed Design Specification
CSE 4317: Senior Design II
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Team C
Product Name

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Revision History

Revision	Date	Author(s)	Description
0.1	1.01.2016	GH	document creation
0.2	1.05.2016	AT, GH	complete draft
0.3	1.12.2016	AT, GH	release candidate 1
1.0	1.20.2016	AT, GH, CB	official release
1.1	1.31.2016	AL	added design review requests

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1 Introduction

Your introduction should provide a brief overview of the product concept and a reference to the requirement specification and architectural design documents in 1 or 2 paragraphs. The purpose is to provide the reader with the location of relevant background material that lead to the design details presented in this document.

2 System Overview

This section should reintroduce the full data flow diagram from the architectural specification, and discuss at a high level the purpose of each layer. You do not need to include a subsection for each layer, a 1 - 2 paragraph recap is sufficient.

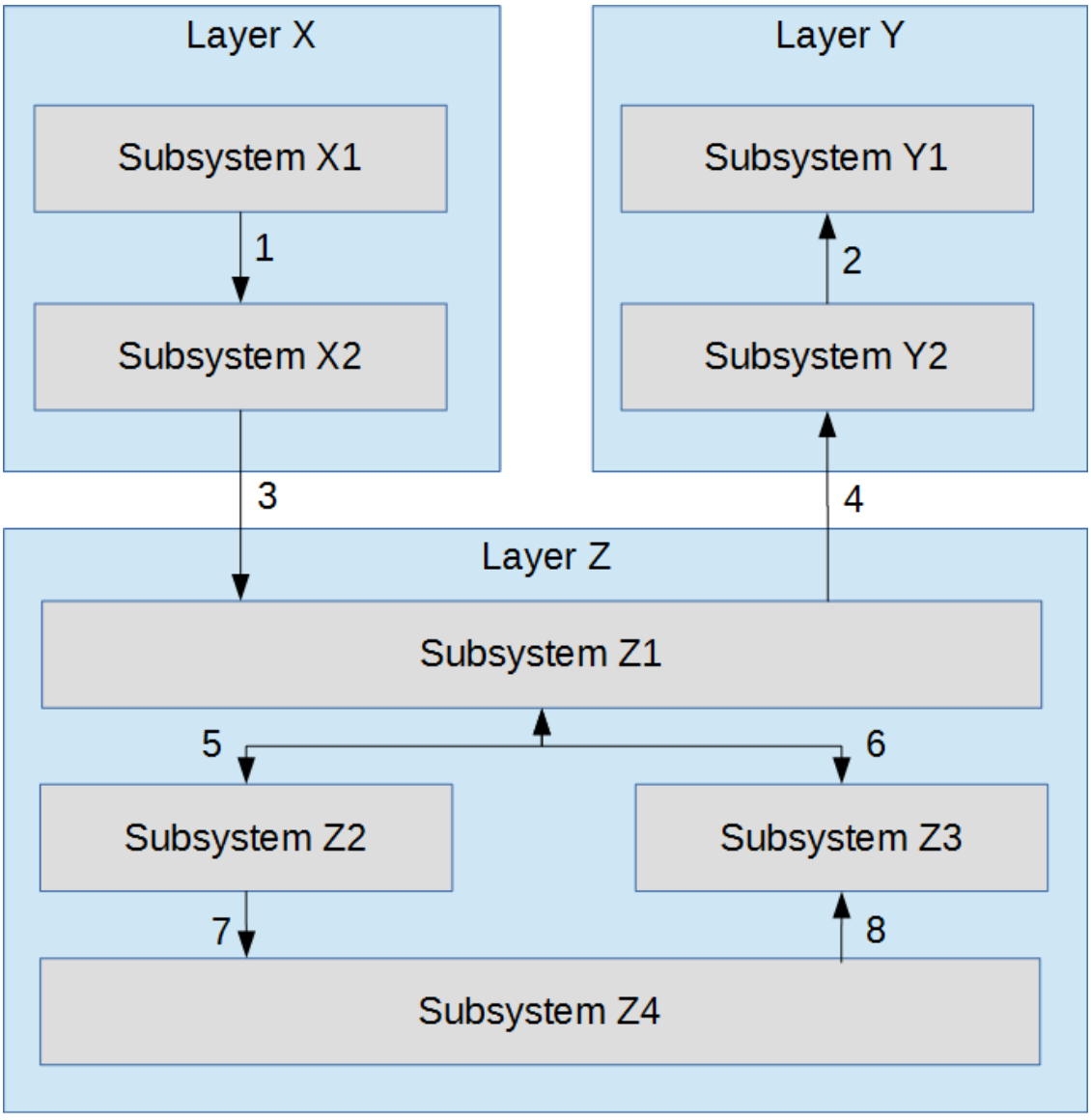

Figure 1: System architecture

3 X Layer Subsystems

In this section, the client layer is described in terms of the software design.

3.1 Layer Software Dependencies

The client layer requires a browser to operated by the user.

3.2 Calendar

Descibe at a high level the purpose and basic design of this subsystem. Is it a piece of hardware, a class, a web service, or something else? Note that each of the subsystem items below are meant to be specific to that subystem and not a repeat of anything discussed above for the overall layer.

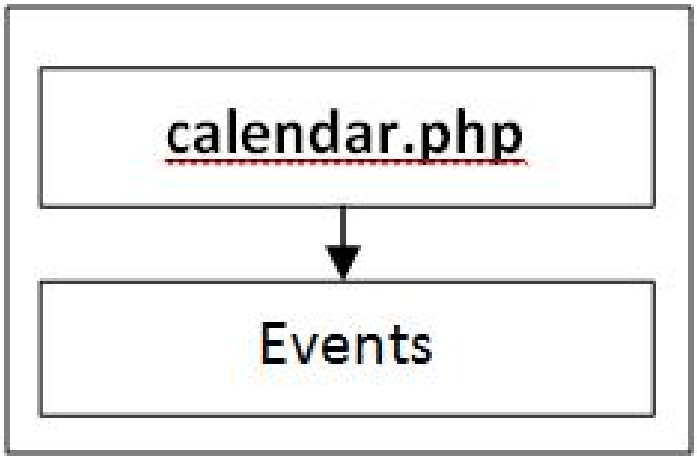

Figure 2: Calendar Subsystem Diagram

3.2.1 Subsystem Software Dependencies

The calendar subsystem requires a browser to operated by the user.

3.2.2 Subsystem Programming Languages

The calendar subsystem requires html, css, and javascript.

3.3 Dashboard

Descibe at a high level the purpose and basic design of this subsystem. Is it a piece of hardware, a class, a web service, or something else? Note that each of the subsystem items below are meant to be specific to that subystem and not a repeat of anything discussed above for the overall layer.

3.3.1 Subsystem Software Dependencies

The dashboard subsystem requires a browser to operated by the user.

3.3.2 Subsystem Programming Languages

The dashboard subsystem requires html, css, and javascript.

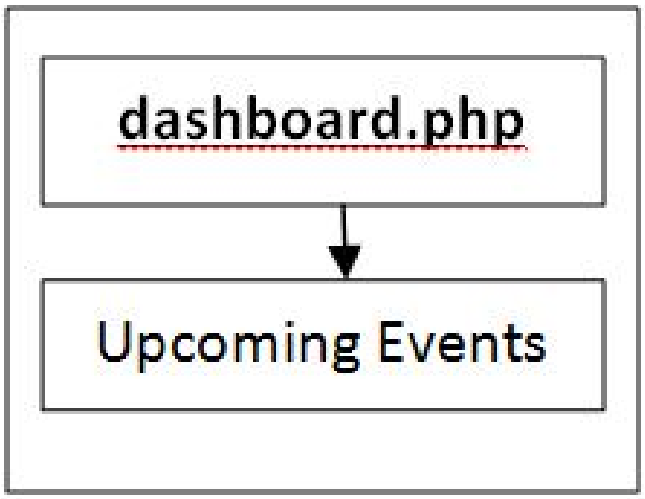

Figure 3: Dashboard Subsystem Diagram

3.4 Management

Descibe at a high level the purpose and basic design of this subsystem. Is it a piece of hardware, a class, a web service, or something else? Note that each of the subsystem items below are meant to be specific to that subystem and not a repeat of anything discussed above for the overall layer.

3.4.1 Subsystem Software Dependencies

The management subsystem requires a browser to operated by the user.

3.4.2 Subsystem Programming Languages

The management subsystem requires html, css, and javascript.

3.5 Inventory

Descibe at a high level the purpose and basic design of this subsystem. Is it a piece of hardware, a class, a web service, or something else? Note that each of the subsystem items below are meant to be specific to that subystem and not a repeat of anything discussed above for the overall layer.

3.5.1 Subsystem Software Dependencies

The inventory subsystem requires a browser to operated by the user.

3.5.2 Subsystem Programming Languages

The inventory subsystem requires html, css, and javascript.

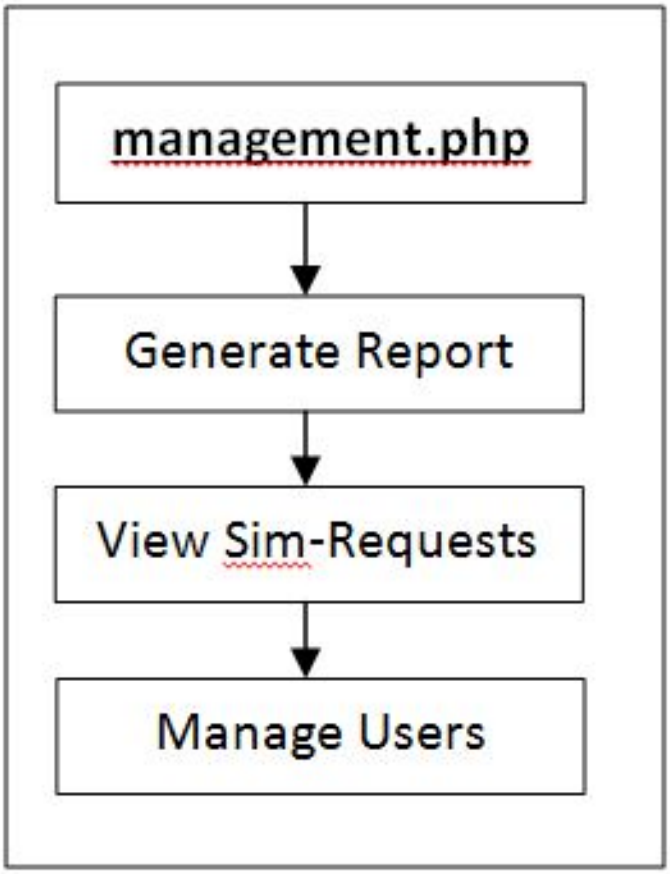

Figure 4: Management Subsystem Diagram

4 Y Layer Subsystems

In this section, the Server Layer is described in terms of the hardware and software design.

4.1 Layer Operating System

The operating system for the server is current project is Windows Server however, any server based operating system is acceptable so long as it can run PHP and MySQL.

4.2 Subsystem 1

Script Subsystem is a portion of every .php file on the website. This data flows from HTML pages into the PHP scripts which use the information in SQL statements to retrieve or send data to the database. Then, PHP generates code for HTML output.

4.2.1 Subsystem Operating System

This subsystem depends only on the layer Operating System requirements.

4.2.2 Subsystem Programming Languages

This subsystem is based purely on PHP code. This subsystem often generates HTML5 based code for client side use and SQL statements to be sent to the database.

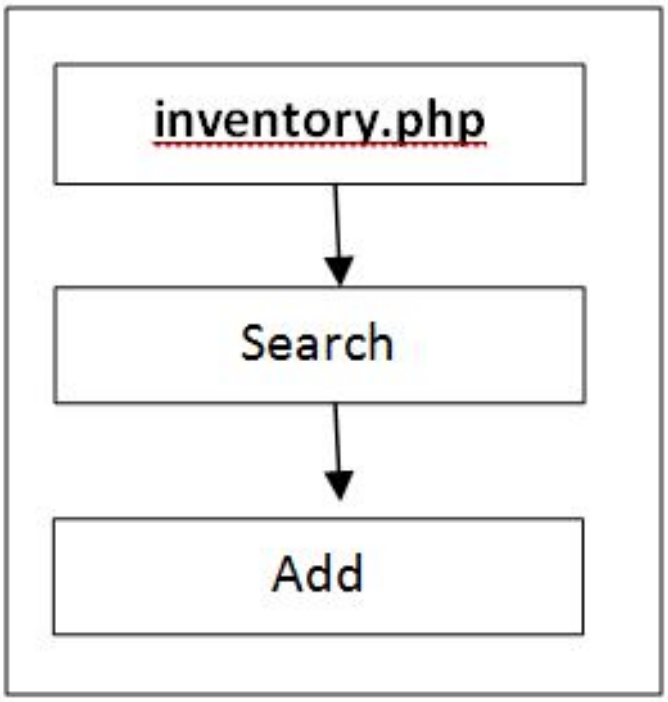

Figure 5: Inventory Subsystem Diagram

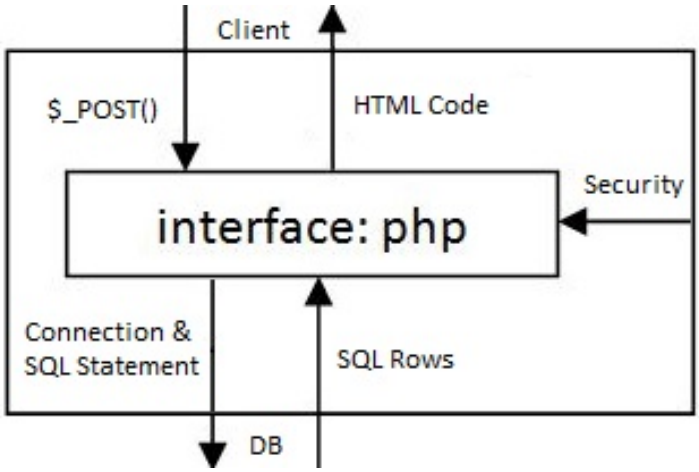

Figure 6: Dataflow of the PHP Scripting Subsystem

4.3 Subsystem 2

The website's storage system. Internet host stores code, script and image files to be used on the website.

4.3.1 Subsystem Operating System

This subsystem depends only on the layer Operating System requirements.

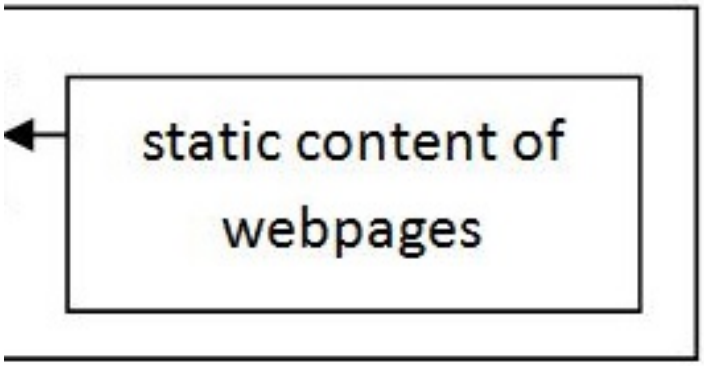

Figure 7: Files are sent out when needed

4.3.2 Subsystem Data Processing

Data files are accessed and sent out after successful Client-Server handshakes.

5 Z Layer Subsystems

In this section, the Database Layer is described in terms of the hardware and software design.

5.1 Layer Hardware

A basic computer that can run programs.

5.2 Layer Operating System

The current operating system which the Database was developed was windows. However, any operating system can create a Database with any number of programs online such as MySQL Workbench.

5.3 Layer Software Dependencies

The MySQL framework.

5.4 Subsystem 1

The Database Tables Subsystem is what provides the database with all the needed information for the website. This data is connected through HTML and PHP code to gather information from the tables or even put data back into the tables properly. This allows for proper storage of information to the database so that the website portion may run smoothly and without any error or incorrect information when sought by a user.

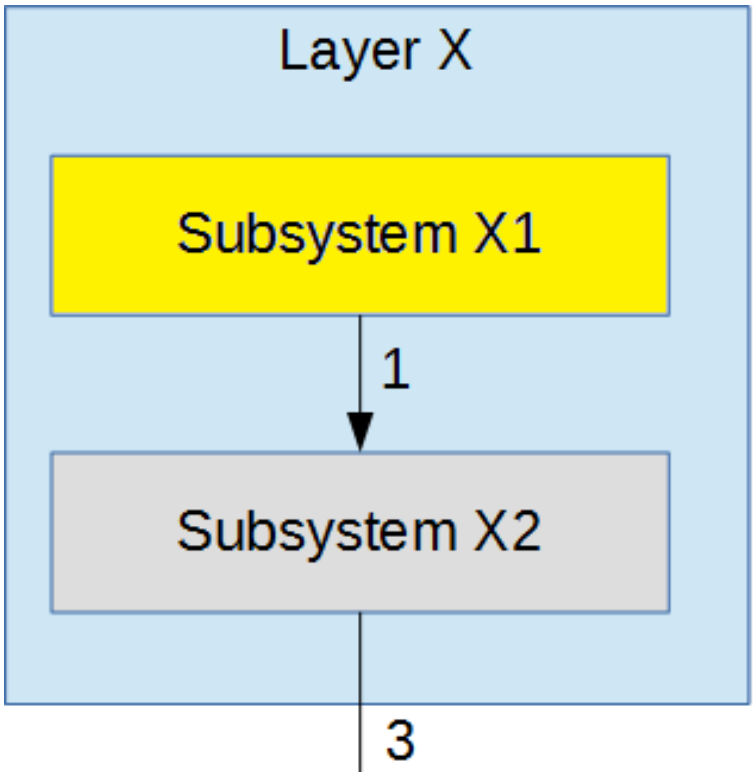

Figure 8: Example subsystem description diagram

5.4.1 Subsystem Operating System

Any operating system was fine to use.

5.4.2 Subsystem Software Dependencies

MySQL framework.

5.4.3 Subsystem Programming Languages

MySQL.

6 APPENDIX A

Include any additional documents (CAD design, circuit schematics, etc) as an appendix as necessary.