Personal Computer Applications Portal

1. Introduction

1.1. Purpose

This document describes the architecture, scope, and functionality of the proposed Personal Computer Applications portal. Additionally, this document outlines the standards and conventions that should be followed during the development lifecycle.

2. System Overview

2.1. System Characteristics

The Personal Computer Applications portal will function primarily as a portal of information for COMP 1000 and 1003 as well as other projects headed by Dr. Marghitu. Most of the data, once input, is relatively static. Login security can be provided with form-based authentication. Hopefully we can tie the security in with Auburn University's Active Directory domain. The admin of the site would maintain a list of admin users for the site. The site itself would only track this list, it would have no knowledge of the password of the users.

2.2. System Architecture

The Personal Computer Applications portal will utilize an n-tier architecture. The data source will be XML pages. Apache Tomcat will operate as the application and presentation server. The web application will run as JSP page in the client machine browser. (See Figure 1)
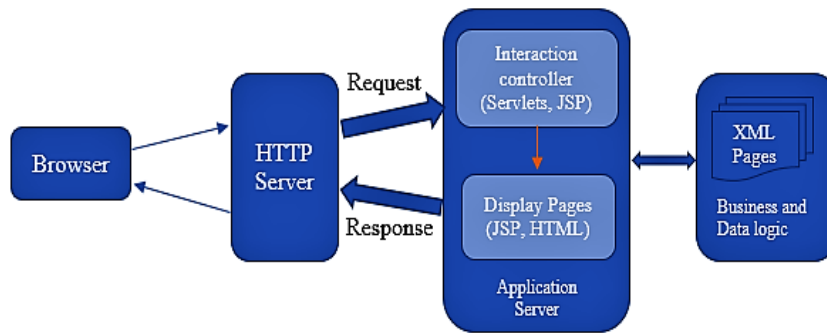
Figure 1.

2.3. System Security

The Personal Computer Applications website will not permit unauthenticated or anonymous users to access any screen except for the login screen. The security model will provide a connection to Auburn University's Active Directory domain.

3. System Design

The data content is mostly static and will change for each page. The main menu will have additional drop down options for each tab (Figure 4). The pages are responsive and will change template based on the size and layout of browser.

The portal will have the following template design for a standard browser (Figure 2) and a mobile browser (Figure 3).
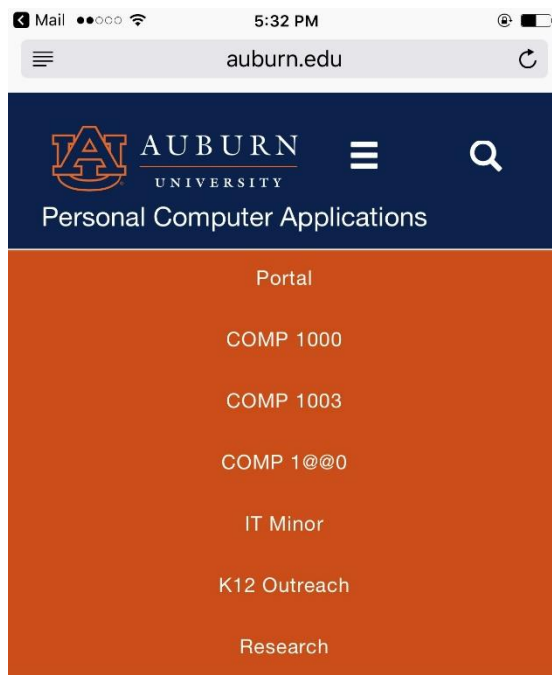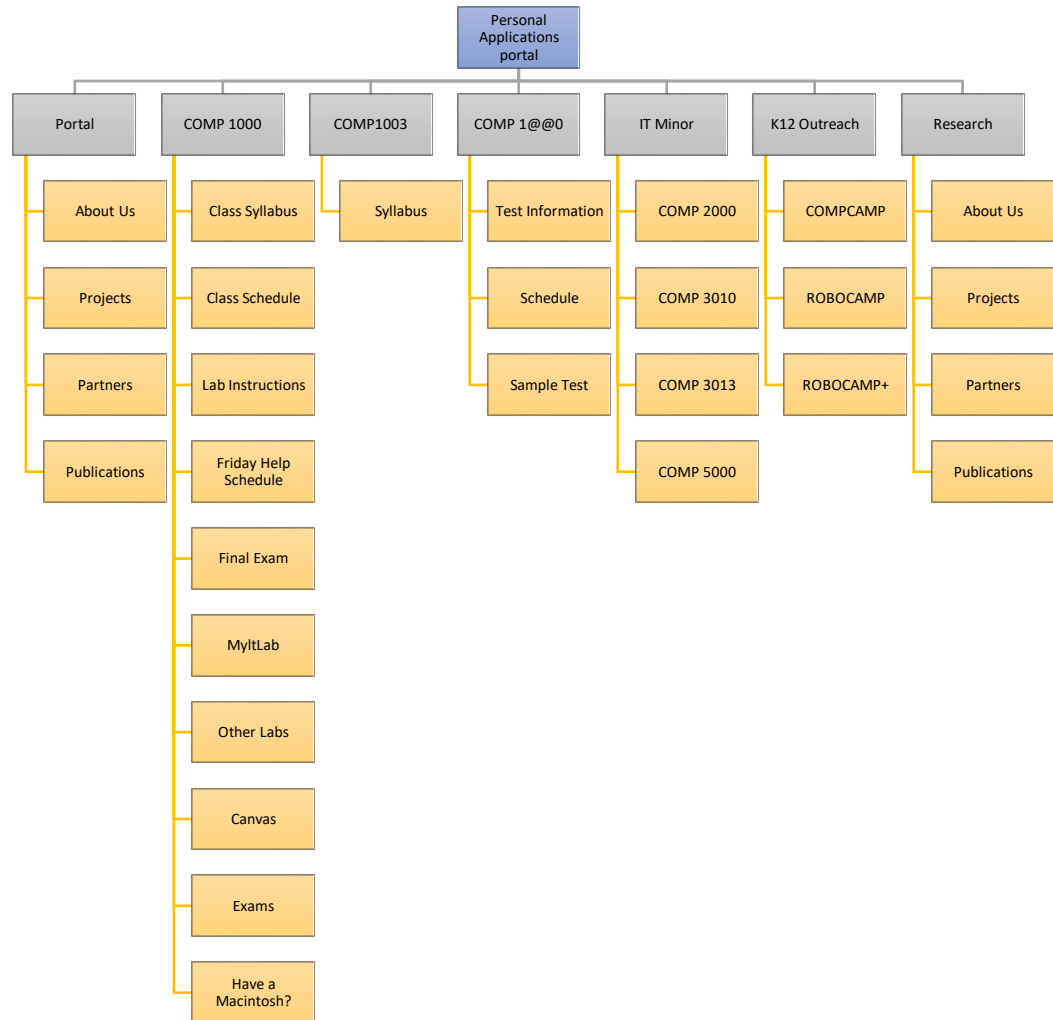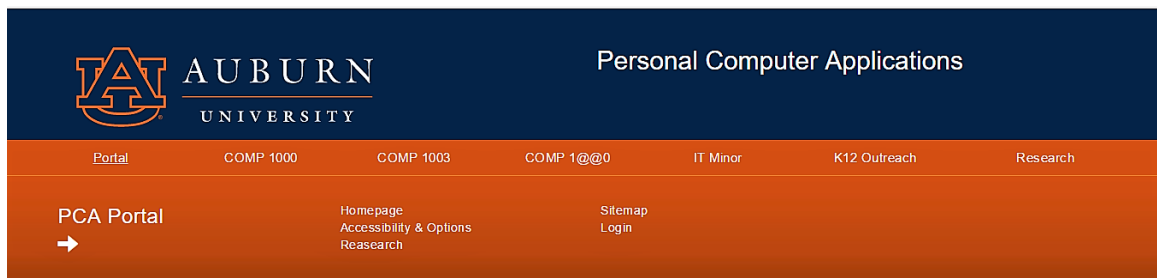
Figure 2.

Figure 3.

Personal Applications portal

- **Portal**
  - About Us
  - Projects
  - Partners
  - Publications
- **COMP 1000**
  - Class Syllabus
  - Class Schedule
  - Lab Instructions
  - Friday Help Schedule
  - Final Exam
  - MyItLab
  - Other Labs
  - Canvas
  - Exams
  - Have a Macintosh?
- **COMP1003**
  - Syllabus
- **COMP 1@@0**
  - Test Information
  - Schedule
  - Sample Test
- **IT Minor**
  - COMP 2000
  - COMP 3010
  - COMP 3013
  - COMP 5000
- **K12 Outreach**
  - COMPCAMP
  - ROBOCAMP
  - ROBOCAMP+
- **Research**
  - About Us
  - Projects
  - Partners
  - Publications

Figure 4.

3.1 . Portal: The PCA portal provides general information to users and also has a login

page for administrative users.

AUBURN UNIVERSITY — Personal Computer Applications

Portal | COMP 1000 | COMP 1003 | COMP 1@@0 | IT Minor | K12 Outreach | Research

PCA Portal ➡

Homepage
Accessibility & Options
Reasearch

Sitemap
Login

3.1. 1. Login Form

The user will log into the system from the login form. From there, depending on his security level, he can navigate to other screens. Any unauthenticated user will be re-directed to the login form. When an authenticated user logs out, he/she will be re-directed to the login form.
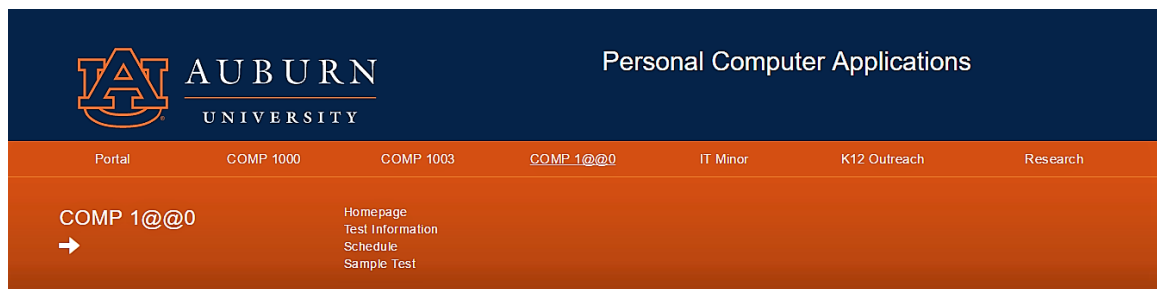
3.2. COMP 1000: This tab provides options for users of course COMP 1000

3.3. COMP 1003: This tab provides options for users of course COMP 1003
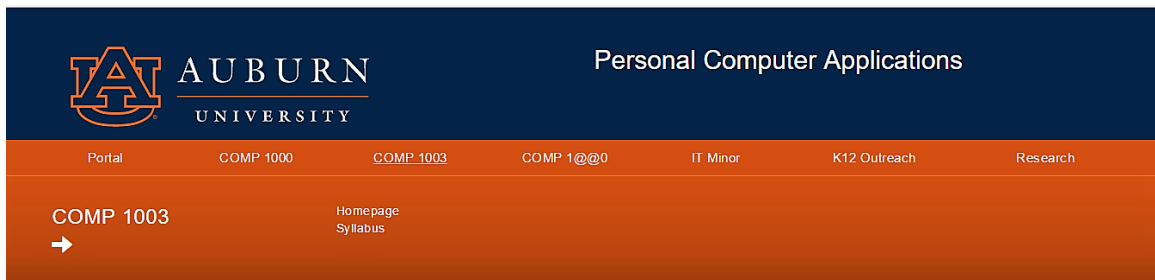
3.4. COMP 1@@0: This tab provides options for users of course COMP 1@@0

3.5. IT Minor: This tab provides options for users of course IT Minor (COMP 2000, CONP 3010, COMP 3013, COMP 5000)

3.6. K12 Outreach: This tab provides options for outreach students of various courses

3.7.Research: This tab provides options for users regarding the research work and

opportunities.