

# Testing Document and Specification

## Test Plan

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## Introduction

This document outlines the test plan for the University of Missouri-Kansas City Health and Wellness Center and the School of Pharmacy Question and Answer System. As outlined in the project Requirements Document, this system needs to provide a medium for UMKC students, staff and faculty to ask general health related questions. This system will also provide a mechanism for discussion amongst providers and students affiliated with the providers. The testing activities discussed in this document will verify that the software for the Question and Answer system meets the needs of the customer by verifying that the requirements for this system, as outlined in the Requirements Document, are met.

The testing routine will test the Question and Answer system's response to asking a question, browsing through previously asked questions, searching through questions/answers by keyword, logging in to front-end/back-end websites and posting answers to the front-end website. The results of this testing procedure will enable the creators of this system to gauge project success as outlined in the Macro Project Plan.

## Terminology

Throughout this document the terms user, student, provider, system, site and username/password will be used frequently therefore, formal definitions will be given.

System- the database and bulletin board that supports the backend of the website

User- people affiliated with UMKC (students, faculty, and staff with SSO username and password) who will exclusively use only the front-end of the website

Student- students of UMKC School of Pharmacy or Student Health Services who will help oversee and are involved in this website

Provider- faculty and staff affiliated with UMKC School of Pharmacy or Student Health Services who will help oversee and are involved in this website

Site- the front-end website (main page)

Username/Password- unique identifiers that authenticate and validates a user

## Items Tested

Items that will be tested during the testing phase as laid out by the Macro Project Plan will be but are not limited to:

- Ability for an individual to select a category and read questions/answers pertinent to that category  
Test Case: 4.1.4.1, 4.1.4.2
- Ability for a user to login via username and password and submit a question  
Test Case: 4.1.1.1, 4.1.2.1, 4.1.2.2, 4.1.2.3
- Ability for a user to login via username and password and submit a survey  
Test Case: 4.1.3.1
- Ability for students and providers to login via username and password to the back-end system and post answers to the front-end site via a threaded discussion board  
Test Case: 4.2.1.1, 4.2.1.2, 4.2.1.3
- Ability to search (by keyword) through questions and answers  
Test Case: 4.1.4.2

## Items Not Tested

There are features that will not be included in the current testing procedure. This does not mean that these features will not be implemented, but that they have not been implemented and are not available for testing. Those features include but are not limited to:

- Reading Questions from the Archive
- Querying the Database
- Administrative Features that include adding/removing a user, signaling on call status and selecting email preferences

## Approach

The overall method to this testing procedure is manual system testing. Each test case created will have a direct link to the requirements as laid out in the Requirements Document. Test cases that include similar Feature methods will be tested together. Examples of these features include logging in to submit a question, logging in to submit a survey and/or logging in to the back-end website. Test cases such as these test the security features of the system along with the ability to submit information to the database. Each test case will test the security feature with invalid and valid data (usernames and passwords) to ensure that user requirement of valid users for these features is met.

The features that specify reading previously asked questions and searching by keyword will be tested together but in separate test cases. Searching by keyword through previously asked questions and answers will verify the system's ability to produce results that an individual can validate visually.

Manual system testing will continue throughout the second and third iteration of the project. For each iteration, both old and newly implemented features will be tested. Adding new features or functionality can sometimes interfere with the functionality of old features and to ensure product/project success, all features implemented should function as intended throughout the life of the software.

## Item Pass/Fail Criteria

The minimum requirements for this software system were laid out in the Requirements Document and the Macro Project Plan outlined what the creators of the software considered project success.

Implemented features that meet the requirements as determined by the customer, meaning the feature does what the user wants it to do with very little difficulty, passes the testing procedure. Difficulty, as used here, is determined by user comprehension and user ability to use the feature with little to no training.

Features that contain major defects will fail the testing procedure and will be documented via an incident report and turned over to the developer for investigation and revision.

## Test Deliverables

In addition to the Test Plan, other test deliverables include the Test Specification which outlines the specific test cases and expected results of each test, and Test reports which is comprised of Incidents, Defects and Changes.

## Testing Tasks

The following list the testing deliverables and the activities required to produce the deliverable.

Deliverables	Activities
<b>Test Plan</b>	<ul style="list-style-type: none"><li>• Analyze Requirements for System Features</li><li>• Determine Testable/Non-Testable Features</li><li>• Develop Approach/Method for testing</li><li>• Determine Task and Estimate Efforts</li><li>• Develop Schedule for Testing</li></ul>
<b>Test Specifications</b>	<ul style="list-style-type: none"><li>• Analyze Requirements</li><li>• Define Test Cases for Testable Features as Outlined by the Test Plan</li></ul>
<b>Test reports</b>	<ul style="list-style-type: none"><li>• Implement Test Cases as Outlined by the Test Specifications</li><li>• Document Incidents and Defects</li><li>• Determine Severity of Incidents and Defects</li><li>• Determine Changes that Need to be Made to System</li><li>• Document and Submit Change Request to Developer</li></ul>