


Software Requirements Specification

FAQ Application

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29th April, 2024



1. Introduction

1.1 Purpose


This document gives a comprehensive explanation of the Frequently Asked Questions (FAQ) Application. This document will go into explaining what is in the application, what was used to make the application work, and what the application does. Things that will be included in the discussion of the application within this document are also the constraints that the application will operate under. This document will help future developers and programmers in understanding what to do on this project in a way that is easy to follow.

1.2 Intended Audience

The Intended Audience that is to view this document are students, professors, administrators, developers, and programmers who are to work on this application or need to have a more in depth look at the specifics of how this project was documented for assistance purposes.

1.3 Intended Use

The intended use of this webpage-based application is for the user to submit a question that they may have to the CSI network and acquire an answer to said question. The user should also be able to view past queries by utilizing the search feature as well.



1.4 Product Scope

The Frequently Asked Questions (FAQ) Application will be a webpage-based application, allowing current computer science students to ask technical and non-technical based questions to level 1 and 2 administrators. Once a question is submit, it will go through the administrators and will be answered by a level 1 administrator and approved and published by a level 2 administrator. The FAQ application will let students ask new questions or see the answers to questions that have already been given answers. This webpage-based application will also allow communication between the student, faculty, and administrators.


1.5 Definitions and Acronyms

Below, you will find a glossary of terms used in this SRS.

Acronyms:

- FAQ – Frequently Asked Question,
- SRS – Software Requirement Specification
- HTML – Hyper Text Markup Language
- CSS – Cascade Styling Sheet
- SQL – Structured Query Language
- SSH – Secure Shell


Definitions:

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- Heidi SQL – A free and open-source administration tool for MariaDB, MySQL, and other SQL servers.
 - Notepad++ - A source Code editor that supports several languages.
 - MySQL – Relational Database Management System that is used to store data in tables that map to objects.
 - HTML – Structure a Webpage and its content.
 - CSS – Used to create layouts and style web pages.
 - PHP – Open-source server-side programming language that creates websites, applications, and more.
 - Moba-X-Term – An application that allows applications to run in Linux to display graphical user interfaces on Microsoft Windows Desktop.
 - Port 22 – A port number used in computer networking.
 - Port 8080 – Port number used for Web Servers; when this number is added to the end of a domain name, it drives traffic to the web server.
 - Use Cases – Describes how a system can be used to achieve specific goals or tasks.

2. General Description

2.1 Product Functions

The functionality of the FAQ application is having administrators, who are at differing levels, assist students who need answers to their questions. Students will be able to ask questions



and browse existing questions quickly and easily. The student will submit a question to be answered by a level 1 administrator, which will then be approved by the level 2 administrator to become visible and searchable.

2.2 General Constraints

Currently, the application does not have a means to notify administrators when there is a question that needs attention, such as an email notification. Users are only able to access this application on the CSI Northeast State network. Users can only search for questions if they are answered and approved.

2.3 Assumptions and Dependencies

For this section of the document, we need to assume what kind of software and hardware the application will be operating on. We need to assume what kind of database it will use, and which language and program the developers will use to make the main webpage of the FAQ application. Assume that the user will access the webpage application on the NESCC CSI network and type a question into the search bar since that function gives them a possibility of finding answers in a quick and straightforward way. We should assume that an administrator is available and will check the application to answer the user's question.



2.4 User Needs


The people who will be using this application are administrators and students and anyone on the CSI network. The administrator will be the primary user since they can access the front and back ends of the application. There will be a level one administrator who will answer the questions, and a level two administrator who will review and approve the questions. The need that this application fulfills for them is helping people who use the webpage find solutions to the questions that they have. The secondary users are the people who log onto the webpage and find answers to questions that they have or ask new questions if they do not see what they are looking for.

3. System Features

3.1 Functional Requirements

The application must allow users who are current computer science students to ask, submit, and gain answers to questions that they may have. The application must allow a level 1 administrator the ability to answer questions and allow a level 2 administrator the ability to review and approve those answers. The application must allow the user to type a question into the search and view existing questions and answers or submit a new question. The application must allow administrators to log in using their username and password.

4. Interface Requirements




4.1 Software Interface

The software interface that the application will be using is HeidiSQL and Notepad++. HeidiSQL is a tool that is used to store data in a database, which will be used to store data that goes into the application, such as e-mail, password, questions, and answers and the date in which the questions and answers appeared. Notepad++ will be used to edit the HTML, CSS, PHP, and SQL queries of the application. It will show the front end of the website application, which will let the user ask and submit questions and let administrators look, approve, and answer the questions that they were given. The use of PHP is an efficient way to connect to the database. Another tool that is being used for the application is MobaXterm, which is a SSH tool that is used to log in to the server to move files back and forth. The application will use port 8080 to help test the web server. The application will be used on port 22.

4.2 Hardware Interface

The webpage can be displayed from computers on the CSI network. If the administrator can confirm that they are currently in association with computer science, they are able to use the application webpage.

4.3 User Interfaces



The user will interact with the software by going onto the FAQ webpage and submitting a question for the administrators to review. The user will also see past questions and answers made by previous users and have the ability to search these previous questions and answers.


4.4 Communications Interfaces

The communications interface is the way that the software and the hardware communicate with each other. The user will log onto a CSI network and go to the FAQ application page where they can either search for already asked questions or ask new questions that can be reviewed.

4.5 Data Integrity Requirements

The way the application will accept data inputs will be through the administrator putting in their login information and the students submitting a question. How the application will validate, process, store & access, and produce that data is that there will be two administrators who are at two distinct levels of authority. The level 1 administrator will answer the questions but will not approve the questions. The level 2 administrator will review and approve the questions but be unable to answer them.

4.6 Performance Requirements



The software has a well-functioning response time. When the user puts in a keyword and clicks the search button, previous questions and answers are shown to the user. It will take more time to get an answer if a new question is submitted because new questions go through a review process involving multiple administrators. The workload that the system can handle is numerous. There can be various numbers of users participating on the webpage, and there can be multiple questions that can be asked and responded to.

4.7 Security Requirements

The data collected by this application includes the questions the students ask and the answers that are submitted by administrators. The user who is asking the question will be anonymous. We are collecting the login data from the administrators because this shows that the admin is here, and we will store how many times they have logged in to the FAQ application.

4.8 Software Quality Attributes

This application has reliable software quality. The software is not portable because this application can only be used on the CSI network. The software's usability and maintainability is simple and easy. The languages used in the software can be easily learned, making the code easy to modify and change if needed.

5. Preliminary Use Case Models

5.1 Use Cases

- Case 1: Searching, but getting no results
 - The user types in a question at the front-end of the application to the backend of the application. Nothing is found and no results are returned.
- Case 2: Searching, and getting results
 - The user types a question into the search engine, sending the inquiry to the database of the application. There are returned results.
- Case 3: Submitting an unanswered question
 - The user types in a question and submits it to be answered. This question has yet to be answered or approved. The level 1 administrator will need to submit an answer to the question.
- Case 4: Submitting an answered but unapproved question
 - The user's question is submitted and answered by a level 1 administrator but has yet to be approved. The level 2 administrator will need to approve the answer for the question.
- Case 5: Submitting a question and receiving approval and an answer
 - The user will submit a question to the application that will be approved and answered and moved to the accessible Q&A inventory.