Development Guide for The Smart Medical Management System.

By Circle Lab

Contents

[Planning 3](#_Toc38300193)

[Analysis 3](#_Toc38300194)

[Design 3](#_Toc38300195)

[Implementation 3](#_Toc38300196)

[Testing & Integration 3](#_Toc38300197)

[Maintenance 3](#_Toc38300198)

# Planning

# Analysis

# Design

# Implementation

We developed the database for the application using MariaDB version 10.4 to meet the system requirements laid out in the analysis stage. It was developed using the mySQL workbench software to create the code and entity relationship diagram. This can be found in the entity relationship diagram folder and is titled ERD.png the workbench model can be found in the same folder titled Smart Medical Management System Model. There are also SQL scripts in the SQL folder to test the database and setup the base database from scratch.

The user interface was implemented using PHP version 7, HTML5, and CSS3. All work has been completed in the IDE php storm and have been completed in line with the UX designs created in the design phase. These designs can be found in the UX folder and then in the sub folder UX screenshots.

The main application has been developed using PHP version 7 and XAMPP version 3.2.4 there are 15 DTO’s (Data Transfer Object) classes and 15 DAO’s (Data Access Object) classes. Along with one service façade class that ties everything together. All software has been developed using Git and GitHub and has been coded to international standards.

# Testing & Integration

During the development of this application we have run several tests to make sure that it will function correctly when out in the real world. All of the 15 DAO’s and DTO’s have been unit tested along with the service façade. All unit tests can be found in the application folder and then in the unit tests folder.

The database was tested as well using the Test DB SQL script in the entity relationship diagram folder and in the sub folder SQL scripts. It was also manually tested by two engineers to make sure that everything was functioning correctly according to the dummy data files that can be found in the Entity Relationship Diagram folder and in the sub folder Database Data.

We have also written a test plan to help test the final integration of the system modules this can be found in the test plan folder titled test plan. This test plan was then run by another engineer who had the following results from the test plan that can be found in the same test plan folder titled test plan results.

# Maintenance

In the final stage of development, we wrote a user guide for helping new users understand how to use the system. This can be found in the user guide folder and is titled user guide. We have also written this development guide to help onboard new people and allow them to understand the development process. Or to allow someone who was not part of the original team to take over maintenance of this application.