INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV

Subject: System Analysis And Design

Open Source Study

Topic: Virtual Clinic

Project report

Software Test Plan [STP]

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Test Plan

The Virtual Clinic is an integrated care system that manages all stakeholders in the medical domain efficiently. Each feature is made up of a number of use cases, and each use case can be tested in a number of ways.

Software for testing

The testing of Virtual Clinic is done using **Travis CI.**
It is a distributed continuous integration service used to build and test software projects.

Testing Approach

We have used the SRS and the SDD to prepare the design test cases and their procedures. These tests are designed to verify the documentation previously listed.

To test Virtual Clinic, we have accounted the following testing approaches:

- **Interface Testing**

Virtual Clinic has many modules and components, including, but not limited to, appointments, medical tests, prescriptions, and profile view. Information from these components must be passed between each other and to other components throughout the application. Interface testing will be used to evaluate whether these components and modules pass data and control correctly to one another.

- **Regression Testing**

Virtual Clinic is being developed in Waterfall with the Backflow process model. After each code/build change, our development environment is set up to run all test cases against the current code base with each push to the main repository.

- **Coverage Testing**

As per the SRS, we will be writing our own unit tests on each new code push. Because of this requirement, in addition to other testing methods, we aim to have near 100% code coverage. This means that 100% (or extremely close to 100%) of the source code written passes through a test at some point in the testing suite.

● **Automated Test & Deployment**
Virtual Clinic is being developed and improvised when some bug is found by the developers while using it, as a result, it becomes very important for the team to have automated tests after every code push and automatically deploy it to the server where the application is hosted in order to reduce a lot of manual work and get the new application code running in few minutes itself.

● **Functional Testing**
Virtual Clinic is a frontward-facing web application. Due to the nature of this application, we have conducted manual testing on the web page to ensure that the application reacts and responds in the way that it is expected to.

● **Unit Testing**
Virtual Clinic is utilizing unit and integration testing. All of the unit and integration test cases are constructed with detailed knowledge of the codebase and have been automated to run with each codebase change.

● **System Testing**
Virtual Clinic is a web application and hence will be needed to set up for different hospital management systems and in a different way and according to their needs. Hence we will be testing the application in different environments and verifying its successful working.

Functional Testing

Test No.	Function	Pre Conditions	Test Description (steps)	Expected Outcome	Pass/ Fail
1	Patient Registration	The system is set up and functional	1. User clicks on the register button 2. User enter email as username 3. User enters the password, first name, last name 4. User reenters password 5. User clicks register button	The page displays profile page for user and an option to logout	PASS
2	System Setup	The system is visited for the first time	1. First time a user enters the email as username 2. User enters the password 3. User reenters the password, first name, last name 4. User clicks on Register account button	Page is redirected to admin profile and displays message saying Successfully setup admin account.	PASS
3	User Login	The system is set up and functional	1. User enters username and password 2. Click the login button	The page displays the profile of the corresponding user	PASS
4	Add specialty	The system is set up and functional and is on the specialty page Admin has logged in	1. Admin clicks on add specialty button 2. Adds specialty name and description 3. Clicks on add specialty button	Specialty page displays the added specialty	PASS
5	Delete specialty	The system is set up and functional and is on the specialty page Admin has logged in	1. Admin clicks on delete specialty button 2. Cancel confirmation box pops up. 3. Admin clicks on deleting the specialty	The specialty page displays the other specialties that were not deleted	PASS
6	Add symptom	The system is set up and functional and is on the specialty page Admin has logged in	1. Admin clicks on add symptom button 2. Adds symptom name and description 3. Clicks on add symptom button	Specialty page does not get changed	PASS
7	Delete symptom	The system is set up and functional and is on the specialty page Admin has logged in	1. Admin clicks on delete specialty button 2. Cancel confirmation box pops up. 3. Admin clicks on deleting the specialty	Specialty page does not get changed	PASS

8	Employee Registration	The system is set up and functional. Admin is logged in	1. Admin clicks create new user option 2. Admin enters email, password, and full name 3. Admin reenters password 4. Admin chooses the role of the new user 5. Admin clicks register button	Page displays that account for the user have been successfully created	PASS
9	Create an appointment	The system is set up and the functional user is logged in	1. User clicks on the appointment button 2. User clicks on the new appointment. 3. Fills the appointment form correctly 4. user clicks on to create an appointment	Appointment gets created	PASS
10	Provide consultation	The system is set up and the functional doctor is logged in	1. Doctor clicks on the prescription button 2. Fills the prescription form correctly 3. Doctor clicks on add prescription	Prescription gets added	PASS
11	Deliver Medicines	The system is set up and the functional chemist is logged in	1. Chemist clicks on the prescription button 2. Updates its delivery status 3. clicks on update prescription	Delivery status gets updated	PASS
12	Perform Lab tests	The system is set up and the functional lab is logged in	1. Lab clicks on the prescription button 2. Uploads the test results 3. Updates the prescription	Prescription gets updated	PASS
13	Patient display	The system is set up and the functional patient is logged in	1. Patient clicks on the medical info button	The page displays the medical history of the patient	PASS
14	Update Profile	The system is set up and the functional patient is logged in	1. User clicks on Update Profile 2. User updates the fields 3. User clicks on the Update Profile button	Page displays message that the profile is successfully updated	PASS
15	Change Password	The system is set up and the functional patient is logged in	1. User is on Change Password page 2. Enters the current password 3. User enters the new password and then reenters the new password. 4. Click on Change Password button	Page displays that the password is successfully updated	PASS