



Group 10

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Master Clinic

Software Test Plan (STP)

Team 10 Master Clinic 1.1

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6.	Hady Maher	hadymaher311@gmail.com	1.0	4.07,2018	Aisha Mousa	-Overview -Testing Environment
7.	Hady Maher	hadymaher311@gmail.com	1.0	4.08,2018	Aisha Mousa	-Non-functional testing -Glossary
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Software Test Plan

1. Overview

In this phase we are going to do the functional testing manually by some test criteria such as entering some valid and invalid data and see what will be the response of the application then evaluate its behavior according to the expected behavior. As for non-functional testing, in some parts we are going to use Google audit tool.

2. Test Methodology

2.1 Testing Environment

To test our system in this phase all we need is to start the application and test every single functionality in its own by submitting multiple kinds of data to this functionality and record the behavior of the application with every kind of entered data.

2.2 Functional Testing

This section is included in the Test cases document which attached to this document.

2.3 Non-functional Testing

2.3.1 Performance Testing

We test 2 kinds of performance testing:

1. Speed test:

This type of testing is examining the response of the application but this testing is dependent on the server we are deploying the system on and the ping of the hosting and other things belongs to real hosting not our local host.

But according to google audit tool on our local host it gives these results in 3 different pages:

1. Patient Login page:

Total performance test gives 81% with first meaningful paint after 3.370 ms and first interactive after 3.880 ms.

2. Admin profile page:

Total performance test gives 65% with first meaningful paint after 5.020 ms and first interactive after 5.240 ms.

3. Admin views patients table page:

Total performance test gives 41% with first meaningful paint after 6.350 ms and first interactive after 8.990 ms.

2. Security test:

This type of testing is examining the security methods of the application such as password encryption and defending against some attacks like sql injection, cross site scripting, csrf attack... etc.

1. Passwords encryption:

We are using the latest encryption in PHP 7.2 (bcrypt).

2. Defense against sql injection:

Sql injection is a method of attacking the database of the application if it's constructed of one of the sql databases like Mysql we are using.

All sql injection in all forms of the application is failed to inject our database.

3. Defense against cross site scripting:

Cross site scripting is to submit a malicious script in the request to change some behavior

of the application.

By making some cross site scripting attacks on the application the results shows that some browsers is defending against cross site scripting like Google Chrome and Opera by killing the request which has any script in it but some other browsers like firefox doesn't do that but our website can filter these scripts and deal with them as ordinary strings not scripting languages.

4. Defense against CSRF attack:

Cross-Site Request Forgery (CSRF) is an attack that forces an end user to execute unwanted actions on a web application in which they're currently authenticated.

In the framework we are using for developing this website it has a defense method of this type of attacks which making a token attached to every request to validate that the request isn't automated.

2.3.2 *Quality Testing*

This type of testing can be examined by showing the response time of the application but this testing is dependent on the server we are deploying the system on and the ping of the hosting and other things belongs to real hosting not our local host.

This section is included above in performance speed testing.

2.3.3 *Interface Testing*

⇒ Application Server and Database Server interface:

- Servers are executed properly.
- Errors are handled properly and return an error message for any query made by application.
- Queries sent to the database give expected results.
- When connection between database and application can't be established an appropriate message is shown to the end user.

2.3.4 *Other Testing*

1. Testing throttle requests in login system:

This test is examining the too many requests on the login page with invalid data.

If the user try to login with invalid data more than 5 times the system will stop him for 60 seconds to let him request again to login.

2. Testing data separation with 3 types of users:

Our system has 3 different types of users with different data and different accessibility to the application because of that we implement a guard system to separate the data and the access to functionality and pages but there is a kind of admins is called super admin (the owner of the clinics) he has more policies than other admins and this part will be implemented in the next phase.

3. **Glossary**

Super admin ⇒ The owner of the clinic.

Local host ⇒ local service on our PCs.