# Software Test Plan

for

# <Hospital Appointment System (OCSA)>

Version 1.0 approved

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# **Revision History**

Revision	Date	Updated by	Update Comments
0.1	2021.08.10	Nowrin	First Draft
0.2	2021.08.11	Tamzid	Second Draft
0.3	2021.08.12	Ashik	Third Draft
04	2021.08.13	Shiam	Fourth Draft

# 1. TEST PLAN IDENTIFIER: OCSA V1.0

# Hospital Appointment System (OCSA)

#### 2. REFERENCES

- Software Requirement Specification (SRS) of the system
- Requirement Specification
- Technical Specification
- Rules of User Interface Design Content

#### 3. INTRODUCTION

#### Background to the Problem

- In our daily life medical appointment has become one of the important part and parcel. Almost everyone has to make an appointment for different purposes. And for this, if many clients try to get appointments at the same time, then the server may not be able to handle that much load and give the proper service.
- As technology is growing rapidly, most of the manual systems are being replaced and becoming automated. And patients do use phone calls to make appointments, despite the fact that more users are being enamored with the prospect of scheduling appointments automatically. At a certain time, patients have to make an appointment through a call that's sometimes quite impossible. And again there is a fixed time and you have to continuously keep trying and trying to make an appointment.

#### Solution to the Problem

- Patients are increasingly seen as consumers who have a say in their care, according to the healthcare industry.
- OCSA is a booking system to manage doctor patients scheduling their appointment from time to time. It will make patients and doctors well-oriented, which is bound by times. Patients can book upcoming times for him/her, which will make their life great and straightforward. Only fill-up registration form, and then the system will take care of the rest. No hassle of time clashing and waiting. Time is vital for the future. Benefits for the patients in this website are: can register in the website, can create appointments, can cancel appointments directly, can see completed and cancelled appointments.

## 4. REQUEIREMNT SPECIFICATION

# **4.1** System Features

User Category: Admin, Doctor, Patient.

#### 1. System Login

- 1.1 The website shall allow users to login with their given username and password
- 1.2 If the username and/or password has been inserted wrong for more than three times, the random verification code will be generated by the system to retry login.
- 1.3 If the number of login attempt exceed its limit (5 times), the system shall block the user account login for one hour.

Priority Level: High.

Precondition: user have valid user id and password.

#### 2. Registration

- 2.1 The website will allow user to register for the system.
- 2.2 User ID will be auto generated after registration and OTP and User ID will be sent to Email automatically.

Priority Level: Medium

Precondition: Need National ID, passport size jpg photo, Mobile number, email ID,

must to register for the system.

Precondition: Client current area.

#### 3. Add & Verify Doctor's Profile

- 3.1 The website will allow user to Add & verify Doctors profile.
- 3.2 User ID will be auto verified after registration and OTP and User ID will be sent to Email automatically.

Priority Level: Medium.

Precondition: User must have valid email address, username, phone number and

password.

#### 4. Update Doctor's Profile with the new information

- 4.1 The website will allow user to Update Doctors profile.
- 4.2 User ID will be auto updated after updating doctor's profile.

Priority Level: High.

Precondition: User must have valid email address, username, phone number and

Password ID, must to register for the system.

#### 5. Delete Doctor's Profile

5.1 The website will allow user to Delete Doctors profile.

5.2 User ID will be delete if the doctors have any problem.

Priority Level: High.

Precondition: Doctors have a valid profile.

#### 6. Make Doctor's Appointment

6.1 The website will allow user to make an appointment.

6.2 User ID will make an appointment if they need.

Priority Level: High.

Precondition: Doctors have a valid profile.

#### 7. Doctor's Approve Appointment

7.1 The website will approve the appointment if the doctors are available.

7.2 User Id approve the appointment.

Priority Level: High.

Precondition: Doctors have a valid profile.

# **4.2** System Quality Attributes

- **Usability:** A trained user shall be able to register into the system and login into the system.
- Readability: Counting on appointment software to adequately and securely manage scheduling needs is important. Make sure the provider has a proven track record among other medical professionals.
- Efficiency: All functional purpose shall be fulfilled.
- Portability: Shall be able to run on every device correctly.
- Security: Medical professionals and staff handle sensitive and confidential records and information. It is, therefore, important that the system chosen provides the necessary security for both internal and external processes. Good security also includes proper implementation of Health Insurance Portability and Accountability Act (HIPAA) requirements.
- Correctness: All features shall be done the way patients demanded.
- **Service Contracts:** No one likes long-term contracts. Luckily, many scheduling software providers offer month-to-month service.
- Ease-of-use: Does it take a computer expert to effectively use the service? It shouldn't, and
  it's important that both the medical professional and his or her staff are comfortable using
  it.
- Accessibility and Installation: One important factor to consider is whether the software is Web-based or not. If it is, users will be able to access it from any Internet location.
   Additionally, there typically will not be any time-consuming downloads or installation.

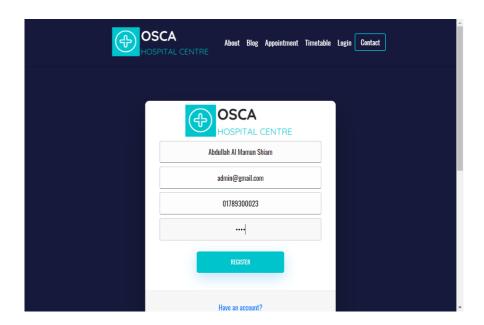
User Support: Don't be left in the dark when it comes to customer support. Considering the
importance of accurate patient appointment scheduling to a medical practice, this is a
crucial requirement. Make sure the service company offers live support by e-mail and/or
telephone. Service Contracts. No one likes long-term contracts. Luckily, many scheduling
software providers offer month-to-month service. This website services available for 24
hours a day, 7 days a week.

# 4.3 System Interface

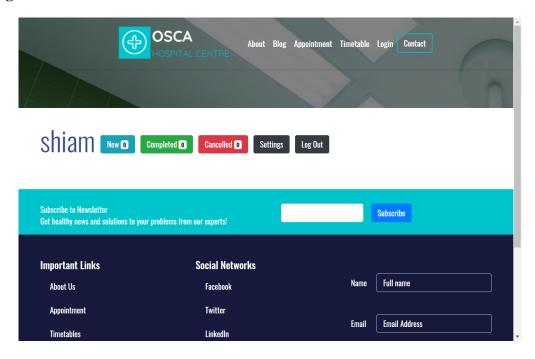
#### Login:



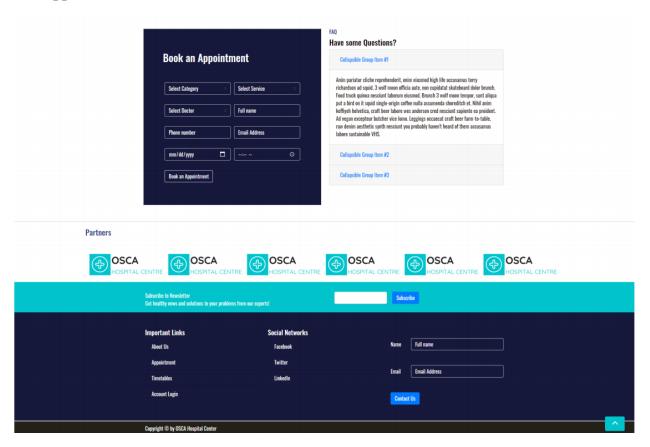
# **Register:**



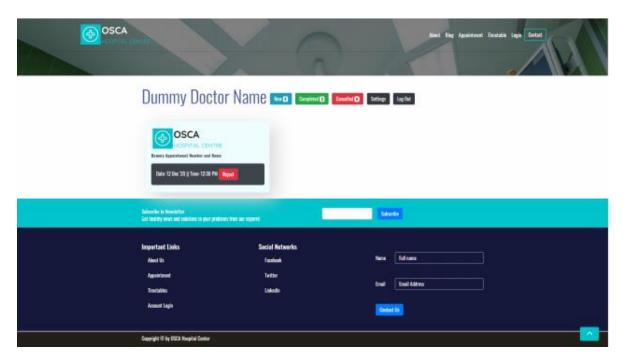
# **Home Page:**



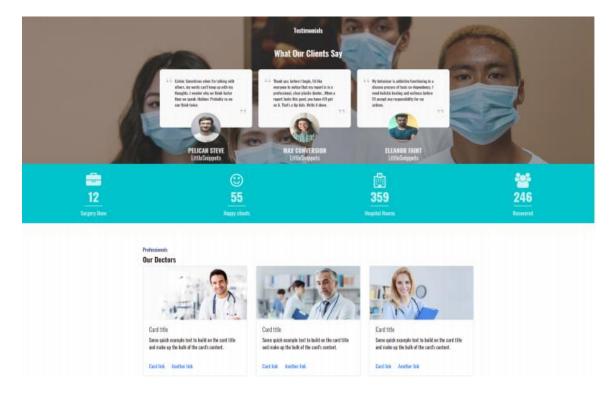
## **Book an Appointments:**



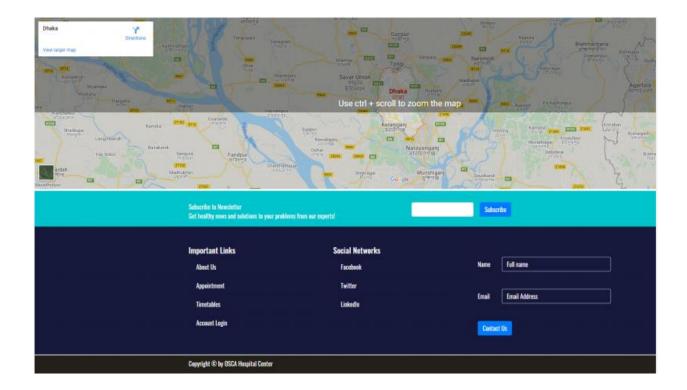
# **Doctor Profile:**



## **About Doctors and Clients Review:**



#### **Contact:**



# **4.4** Project Requirements

• Total Budget: 340,000 BDT.

• Total Development Time: 1.5 year.

• Environment: Should be worked correctly in all device.

# 5. FEATURES NOT TO BE TESTED

- Network Security.
- Hardware related issues.
- Any personal information.
- Low risk, has been used before successfully and is considered stable. UI/UX Design.
- Device testing.
- User information.
- Email.
- Phone number.
- User Address.
- Marital Status.

#### 6. TESTING APPROACH

## **6.1** Testing Levels

- Unit, System/Integration (combined), and Acceptance test levels will be used for the webbased project SMS. For system/integration testing, it is intended that at least one full-time autonomous tester will be available. However, due to budget constraints and a defined timeline, the majority of testing will be completed by the test manager, with the development teams' input.
- The developer will do the unit testing, and that will be authorized by the development team leader. Before unit testing may be approved and handed on to the tester, the programmer must give proof of unit testing. The test person will receive all unit test information as well.
- SYSTEM/INTEGRATION Testing will be performed by the test manager and development team leader with assistance from the individual developers as required. No specific test tools are available for this project. Programs will enter into System/Integration test after all critical defects have been corrected. A program may have up to two Major defects as long as they do not impede testing of the program (I.E. there is a work around for the error).
- The test manager and development team leader will conduct performance testing, with assistance from individual developers as needed. It will be put to the test to see how responsive and stable the system is when subjected to a specific workload.
- The developer will complete security testing and get it authorized by the developer supervisor. Security testing is a form of software testing that is used to determine whether or not an application or product is secure. It looks to see whether the program is vulnerable to assaults, if someone has hacked the system, or if someone has logged into the application without permission.
- Efficiency Testing is crucial since it aids in determining the system's efficacy. To achieve efficiency, test measurements are critical. The test manager and development team leader will be in charge of efficiency, with assistance from individual developers as needed. End-to-end testing procedures, such as test planning, test case generation, execution, defect tracking, and closure, are all connected to testing efficiency. Following the best metric can assist in the delivery of high-quality, bug-free software to the client, which is the primary goal.
- Actual end users will do the testing, with the help of the test manager and development team leader. After the System/Integration test is completed, the acceptance test will run in parallel with the existing manual ZIP/FAX procedure for one month.

#### **6.2** Test Tools

The only test tools to be used are the standard AS/400 provided utilities and commands. JIRA Testing & QA Tool will be utilized to organize test cases and report results as well. The test cases will be written in Microsoft Word.

- Ms Word for develop Test Case.
- The Program Development Manager (PDM) will be used as the source version configuration management tool in conjunction with the in-house check-in/check-out control utility. The check-in/out utility is part of each developer's standard AS/400 access menu.
- The prototypes for the new screens will be developed using the AS/400 Screen Design Aid (SDA) initially. The initial layout and general content of the screens will be shown to the sales administration staff prior to proceeding with testing and development of the screens.

# **6.3** Meetings

The whole test team will meet once every week to evaluate progress to date and to identify error trends and problems as early as possible. The test team leader will meet with development and the project manager once every two weeks as well. These two meetings will be scheduled for different weeks. Additional meetings can be called as required for emergency situations.

# 7. TEST CASES/TEST ITEMS

# **Test Case: 1**

Project Name: Hospital App	Test Designed by: Nowrin, Ashik				
Test Case ID: FR_1	Γest Case ID: FR_1				
Test Priority (Low, Medium,	Test Executed by: Tamzid, Shiam				
Module Name: Registration	Test Execution date:	: 13 August, 2021			
Test Title: Verify registration					
Description: Test website reg					
Precondition (If any): User I	nust have valid ema	il address, phone nu	ımber and password.		
Test Steps	Test Data	Expected Resul	ts Actual Results	Status (Pass/Fail)	
1 Co to the website	Nama Chiam	Hear should	As avmosted	Dogg	

Test St	eps	Test Data	Expected Results	Actual Results	(Pass/Fail)
1.	Go to the website	Name: Shiam	User should	As expected	Pass
	Login page	Email:	successfully		
2.	Click "Don't Have	test1@gmail.com	registered.		
	an Account?"	Phone: 12345			
3.	Enter Name				
4.	Enter unique Email	Password: 123456			
5.	Phone Number				
6.	Password				
7.	Click Register				

Post Condition: Validation email will sent to the user email and OTP code will sent to the user's phone number. After that validated user data will stored in the database. Now User can login in to the system successfully.

Project Name: Hospital Appointment System (OCSA)				
		Test Designed date: 12 August, 2021		
High): High		Test Executed by: Tamzid, Nowrin		
		Test Execution date: 13 August, 2021		
Description: Test User can login using valid user name and password.  Precondition (If any): User must valid username and password				
Total Data	Everante d Danul	a Astrol	Status	
Test Data	Expected Result	Results	(Pass/Fail)	
Username: shiam1@gamil.com Password: tintin	User should successfully logged in	As expected	Pass	
	High): High  Degin using valid user nature and the second	High): High  Ogin using valid user name and  must valid username and password  Test Data  Expected Result  Username: shiam1@gamil.com  User should successfully	Test Designed date 2021  High): High  Test Executed by:  Test Execution dat 2021  Description of the control of	

Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.

Project Name: Hospital Appointment System (OCSA)			Test Designed by: Nowrin, Ashik			
Test Case ID: FR_3				Test Designed date: 12 August, 2021		
Test Priority (Low, Medium,	High): High		Test	t Executed by: T	amzid, Shiam	
Module Name: Add doctor				Test Execution date: 13 August, 2021		
Test Title: Add and Verify D	octor's Profile					
Description: Test website doo	ctor's profile page					
Precondition (If any): FR_1						
Test Steps	Test Data	Expected Resul	ts	Actual Results	Status (Pass/Fail)	
1. Go to the website 2. Login as Admin 3. Enter name 4. Enter Email 5. Enter username 6. Enter password 7. Enter Degree 8. Enter Specialist 9. Enter Available times 10. Click submit	Name: Dr. Sk Rubel.  Email: sk@gmail.com  Password:012345  MBBS (SSMC), BCS (Health)  Tags:#Hypertension, Medicine, Heart disease, Respiratory disease, Joint pain, Headache  GP/MD 3 PM- 9 PM,  Saturday –Friday (flexible)	Doctor Successfully	Add	As expected	Pass	

Post Condition: Doctor is validated with database and successfully login to account. The account session details are logged in the database.

Project Name: Hospital Appointment System (OCSA)				Test Designed by: Nowrin, Ashik		
Test Case ID: FR_4			Test	t Designed date:	12 August, 2021	
Test Priority (Low, Medium,	High): High		Test Executed by: Tamzid, Shiam			
Module Name: Update Docto	or's Profile		Test Execution date: 13 August, 2021			
Test Title: Update Doctor's						
Description: Test website for	doctor's page					
Precondition (If any): FR_3						
Test Steps	Test Data	Expected Resul	lts	Actual Results	Status (Pass/Fail)	
<ol> <li>Go to the website</li> <li>Login as doctor</li> <li>Enter username</li> <li>Go to update</li> <li>Update any data</li> <li>Click Update</li> </ol>	Update Time: 5 pm -10 pm, every day.	Doctor's information updated		As expected,	Pass	
Post Condition: New information updated to database.						

Project Name: Hospital Appo	Test Designed by: Nowrin, Ashik				
Test Case ID: FR_5			Test Designed date: 12 August, 2021		
Test Priority (Low, Medium, I	High): High		Test Executed by: Tamzid, Shiam		
Module Name: Delete Doctor			Test	t Execution date:	13 August, 2021
Test Title: Delete Doctor's Pro	ofile.				
Description: Test website for o	delete doctor page	e.			
Precondition (If any): FR_1					
Test Steps	Test Data	Expected Resul	lts	Actual Results	Status (Pass/Fail)
<ol> <li>Go to the website</li> <li>Login as admin</li> <li>Search by Username</li> <li>Go to Delete Profile</li> <li>Click Delete</li> </ol>	Username: skrybel Delete.	Doctor Profile deleted.		As expected	Pass
Post Condition: Doctor inform	Lation deleted from	m database.			

Project Name: Hospital Appointment System (OCSA)			Test Designed by: Nowrin, Ashik			
Test Case ID: FR_6				Test Designed date: 12 August, 2021		
Test Priority (Low, Medium,	High): High		Tes	t Executed by: T	Camzid, Shiam	
Module Name: Doctor's App	oointment.		Test Execution date: 13 August, 2021			
Test Title: Make Doctor's Ap	ppointment.					
Description: Verify Doctor's	s Appointment pag	ge.				
Precondition (If any): FR_1						
Test Steps	Test Data	Expected Resu	lts	Actual Results	Status (Pass/Fail)	
<ol> <li>Go to the website</li> <li>Login as user</li> <li>Go to Create         Appointments</li> <li>Enter Patient Name</li> <li>Enter Email</li> <li>Enter Phone         Number</li> <li>Enter Date</li> <li>Select doctor</li> <li>Preferred Date and         Time.</li> <li>Description</li> <li>Click Submit</li> </ol>	Username: Nms Email: nms123 Phone: 12345 14/08/2021 Dr. Sk Rubel 14/08/2021 & time: 7 pm It's urgent	Appointment Created Successfully		As expected,	Pass	

Post Condition: Update to database and Doctor can see the appointment.

#### 8. ITEM PASS/FAIL CRITERIA

The majority of setups of the website must fulfill memory performance requirements. To test every criterion of the system some test cases are written, and item test fail criteria depend on the pass/fail of those test cases. Unless the component fulfills the sustainability factor, the test case may not work properly. If the required criteria are fulfilled or it may show some minor error, then this item will be listed as the passed item. But if the criteria are not fulfilled then those types of items are listed as the failed items. So, item pass-fail criteria are depending on the test case pass-fail process. Some modules may misbehave during the module testing, but the same module could be worked after being integrated with another module. Any test case might have an intended result to aid the test investigator in assessing if the test case was successful or not. After the significant re-allocation of the core product information over a period of time and the unique data exchange balance for both the old Wrap files, the testing procedure was finished. The examination has over. When the distributors are convinced that the information is perhaps available, the original package of producers will be impactful and the logs will cease.

#### 9. TEST DELIVERABLES

- Test strategy
- Test plan
- Effort estimation report
- Test cases
- Test data
- Test scenario
- Defect report
- Test execution report
- Test summery report
- Test closure report
- Installation guide
- User guide
- Test Environment
- Test results
- Test closure

#### 10. STAFFING AND TRAINING NEEDS

#### **Need Staff:**

The project/test manager can act as a full-time test engineer, with a part-time test engineer assisting with the project's assessment and early planning during the first quarter of the project. After the initial build is complete, validation and verification testing will require two full-time testers, one of whom must have been involved with the project from the beginning as an aiding tester. Later more staff will be added based on the earlier portion of this test plan document.

# **Need Training:**

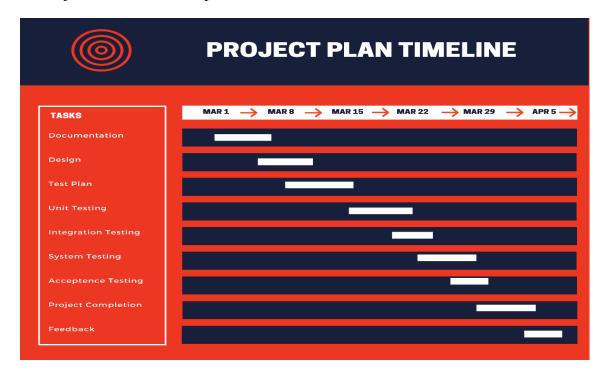
The Test as well as the Project Manager must engage with the administration staff to learn about available courses and necessary course requirements, as well as to train on the inner workings of a course allocation flow. And if need later training facilities will be added for test plan document.

# 11. RESPONSIBILITIES

	TM	PM	Dev Team	Test Team
Acceptance test Documentation & Execution	X			X
System/Integration test Documentation & Exec.	X		X	X
Unit test documentation & execution			X	X
System Design Reviews	X	X	X	X
System Design Reviews	X	X	X	X
Test procedures and rules		X	X	X

#### 12. TESTING SCHEDULE

For the Project we follow some specific time and schedules.



#### 13. PLANNING RISKS AND CONTINGENCIES

An emergency plan is a strategy designed to deal with an unexpected result. It's frequently used in risk management for a rare occurrence that, while implausible, might have disastrous effects. Governments and companies frequently create contingency plans. Those risks can be: Budget issues, client requirements change, shortage of staff, shortage of testing tools, etc. For this, some proper preparations should be taken. Like:

- Handle the client's concerns regarding the payment increase. When it comes to system testing, make use of clients and get the task completed.
- Members of the testing team with programming experience can begin assisting developers.
- Clients should be used for testing wherever feasible to verify that their needs are satisfied. Hire people based on how far along the project is.
- Consult with the PM to set up testing tools that will make testing more efficient.

#### 14. APROVALS

Project Sponsor	Ashik Ahmed
Project Manager	Nowrin Muhaimin Shailee
Development Team Manager	Tamzid Ahmed
Test Team Manager	Abdullah Al Mamun Shiam
Order Entry EDI Team Manager	Tamzid Ahmed