



DIPLOMA IN INFORMATION TECHNOLOGY

PROJECT: DIT 503

DOCTOR-PATIENT INTERACTION SYSTEM

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TEST PLAN SUBMITTED IN PARTIAL

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THE REQUIREMENTS

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TABLE OF CONTENTS

1.	TEST PLAN IDENTIFIER.....	3
2.	INTRODUCTION.....	3
2.1	OBJECTIVES	3
2.2	REFERENCES.....	3
2.3	DEFINITIONS	4
3.	TEST ITEMS.....	4
4.	APPROACH	4
4.1	UNIT TESTING.....	4
4.2	INTEGRATION TESTING.....	5
4.3	REGRESSION TESTING.....	5
4.4	ACCEPTANCE TESTING	5
4.5	SYSTEM TESTING	6
5.	TEST CASES.....	6
5.1	TEST CASE 1 – USER LOGIN.....	6
5.2	TEST CASE 2 – USER REGISTRATION.....	6
5.3	TEST CASE 3 – USER REGISTRATION.....	7
5.4	TEST CASE 4 – BOOK AN APPOINTMENT	7
5.5	TEST CASE 5 – MESSAGE A DOCTOR.....	7
6.	PASS OR FAIL CRITERIA	7
7.	SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS	8
7.1	SUSPENSION CRITERIA	8
7.2	RESUMPTION REQUIREMENT.....	8
8.	TEST DELIVERABLES	8

1. TEST PLAN IDENTIFIER

Doctor Patient Interaction System – V 1.0

2. INTRODUCTION

The main purpose of the test plan for the Doctor Patient Interaction System is to discuss the testing details of the use cases of the Doctor Patient Interaction System. The application project test plan also describes the objective, scope and approach of the application testing effort for the Doctor Patient Interaction System project. The test plan for the Doctor Patient Interaction System also indicates the personnel responsible for each task and also specifies the risks associated with the test plan.

2.1 OBJECTIVES

The main objectives of the test plan for the Doctor Patient Interaction System are as follows:

- To identify the features of the system that will be tested.
- To identify and define all the activities necessary to prepare for and conduct the testing process on the Doctor Patient Interaction System
- To define the pass/fail criteria for each item that will be tested
- To identify the deliverables of the testing phase.
- define any suspension criteria and resumption techniques
- To discuss the testing techniques being used to test the Doctor Patient Interaction System.

2.2 REFERENCES

The following references have been used in the preparation of the Test Plan document for the Doctor Patient Interaction System:

- IEEE Standard for Software Test Documentation Std 829-1998
- Deliverables of the Proposal for the Doctor Patient Interaction System.

2.3 DEFINITIONS

The following are some of the terms and definitions that are related to the test plan of the Doctor Patient Interaction System:

- **Pass/Fail criteria:** Decision rules that are used to determine whether a application item passes or fails a test.
- **Test:** A collection of one or more test cases
- **Test Item:** A software item that is an objective of testing.
- **Test Plan:** A document describing the scope, approach, resources and schedule of the intended testing activities.
- **Test Summary Report:** A document summarizing the testing activities and results.
- **Testing:** The process of analyzing a software item to detect the differences between the existing and required conditions.

3. TEST ITEMS

This section of the test plan lists all the items of the Doctor Patient Interaction System project that will be tested:

- Registration
- Login
- Book Appointment
- Message a Doctor

4. APPROACH

This section of the test plan describes the overall approach for testing the Doctor Patient Interaction System project. The approach followed for testing the Doctor Patient Interaction System ensures that the major features of the project are adequately tested. The testing would be carried out on the Doctor Patient Interaction System while logging into the system as a Patient and as a Doctor.

4.1 UNIT TESTING

The Unit Testing is a test that tests each single module of the software to check for errors. This is mainly done to discover errors in the code of the Doctor Patient Interaction System.

The main goal of the unit testing would be to isolate each part of the program and to check the correctness of the code. In the case of the Doctor Patient Interaction System, all the interfaces and functionalities in java will be tested. There are many benefits for this unit testing:

- The unit testing facilitates change in the code.
- It allows testing to be done in a bottom up fashion.

At the same time, unit testing has some disadvantages such as, it might not identify each and every error in the system.

4.2 INTEGRATION TESTING

In Integration Testing, the individual software modules are combined and tested as a whole unit. The integration testing generally follows unit testing where each module is tested as a separate unit. The main purpose of the integration testing is to test the functional and performance requirements on the major items of the project.

All the modules of the project developed individually would be combined together and tested as a whole system in the integration testing.

4.3 REGRESSION TESTING

The Regression Testing is generally done whenever modifications are made to the source code of a project. The Regression Testing can also be defined as the process of testing changes made to the computer program and also makes sure that the older programming still works with the new changes.

So, before any new version of a software product is released, the old test cases for the project will be run against the software with the changes made, to make sure that the old functionalities of the project still work.

4.4 ACCEPTANCE TESTING

This testing is generally performed when the project is nearing its end. This test mainly qualifies the project and decides if it will be accepted by the users of the system. The users or the customers of the project are responsible for the test.

4.5 SYSTEM TESTING

The system testing is mainly done on the whole integrated system to make sure that the project that has been developed meets all the requirements. The test cases for the system testing will be the combination of unit and integration tests.

5. TEST CASES

The following are the test cases for the Doctor Patient Interaction System:

5.1 TEST CASE 1 – USER LOGIN

- **Incorrect Input:** Incorrect username, which is the email-id in the case of the Doctor Patient Interaction System.
- **Pass Criteria:** An appropriate message should be generated to indicate that an invalid username has been typed.
- **Correct Input:** The correct input would be a valid e-mail id of the user and a correct password associated with the email-id which he uses to log in.
- **Pass Criteria:** The user should be directed to the webpage that the customer is intended to go to after he logs into the system.

5.2 TEST CASE 2 – USER REGISTRATION

- **Incorrect Input:** Wrong format entered in the input fields for the registration page.
- **Pass Criteria:** An appropriate message should be generated to the user saying that he has entered the wrong format in the specific input field.
- **Correct Input:** The correct input would a correct format entered by the customer into the input fields of the registration page.
- **Pass Criteria:** The pass criteria for this test case would be a successful registration of the customer into the Doctor Patient Interaction System website. The system would log the user into the system after this.

5.3 TEST CASE 3 – USER REGISTRATION

- **Incorrect Input:** The data fields left out empty in the registration page.
- **Pass Criteria:** An error message should be generated to the user saying that he has to fill out those fields in order to be registered into the system.
- **Correct Input:** The correct input in this case, would be that the customer would enter the data in all the fields in the registration form.
- **Pass Criteria:** The pass criteria for the system would be that it accepts all the customer details and then registers the customer and helps him log into the system.

5.4 TEST CASE 4 – BOOK AN APPOINTMENT

- **Pick and appointment date:** Choose an available date from the date picker
- **Pass criteria:** A message has to be generated to the user indicating the appointment was reserved.
- **Appointment approved:** The doctor will approve the appointment from his side.
- **Pass Criteria:** The pass criteria for this test case would be that the patient will set and appointment and the Doctor successfully approves the appointment

5.5 TEST CASE 5 – MESSAGE A DOCTOR

- **Send Message:** Send a message to a specific doctor
- **Pass criteria:** A message is send and delivered successfully.

6. PASS OR FAIL CRITERIA

The test cases executed on the Doctor Patient Interaction System will pass if they meet the specific requirements mentioned in the Vision document of the project. A test case is said to fail, if the desired functionality is not satisfied by the system.

7. SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS

7.1 SUSPENSION CRITERIA

Testing for all the dependent features will be suspended if a test case fails. The failed test case will be logged onto the test log which contains the description for the error.

7.2 RESUMPTION REQUIREMENT

The test cases which are not dependent on the case where the bug is reported will be executed in parallel with the bug fixing. Once the failed test case has been taken note of and has been identified and fixed then the testing for the failed test case will resume.

8. TEST DELIVERABLES

The following documents will be produced after the testing phase for the Doctor Patient Interaction System has been completed.

- Test Plan
- Test Cases
- Test Log