**PharmaCare**

**Test Plan**

**Date | 25 – 11 – 18**

**PharmaCare Development Team**

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## Introduction - Jakob

The RightCare hospital is currently looking for an upgrade to its systems and operations to allow the staff to have an easier and more efficient work experience. Currently, multiple staff members are experiencing different Information Technology issues which they would like addressed. PharmaCare which is the new planned system and was proposed by Jack Smith, Director of systems development at RightCare Hospital and will be a “three-tier” system.

PharmaCare will address current issues such as the management of medication provided to patients while other areas such as admitting, discharging, and maintaining the medical history of patients will not be within the scope of the new system.

This document will be used to support the following objectives

1. To define the Software and Hardware to be used throughout the testing process.
2. To communicate to the responsible parties the items to be tested, set expectations around a schedule, and define environmental needs.
3. To define how the tests will be conducted.

## Test Items - Dion

The systems to be tested include the functions accessible by the Doctor, Staff, Pharmacist, Central Accounting System, Hospital Patient Care Data System and the Nurse. These systems should be tested in Firefox 63.0 or later.

The systems should be tested on Windows 7 or 10.

## Features to be tested – Brayden, Jakob

Features to be tested include the following:

**Write Prescription:**

* As a doctor, write prescription for a patient.

**Modify Prescription:**

* As a doctor, modify existing prescription of a patient.

**Cancel Prescription:**

* As a doctor, cancel existing prescription.

**View/Print Prescription:**

* As a staff, display relevant screen to view the prescription of a patient.

**View/Dispatch Prescription (Pharmacist):**

* As a Pharmacist, display prescription.

**Print Medication Labels for OPD Patients:**

* As a Pharmacist, display each patients medical information stored in a Database and print medication labels for outdoor patients.

**Print Medication Labels for indoor patients:**

* As a Pharmacist, print medication labels for Indoor patients.

**Produce Preparation List:**

* As a Pharmacist,

**Produce List for nursing station:**

* As a Pharmacist, view / print the list.

**Get Drugs Administered List:**

* Central Accounting System requests “Drugs Administered List”.

**View Distribution Schedule:**

* As Nurse, view distributing schedule and later print it.

**View List for Nursing Station:**

* As a Nurse, View/Print List for Nursing Station.

**Transfer Patient:**

* Hospital Patient Care Data System & PharmaCare System allows patient to be transferred to another hospital.

**Cancel Prescription:**

* As Hospital Patient Care Data System, Cancel patient prescription.

## Features not to be tested – Brayden

The features that are not to be tested with the PharmaCare System include primarily the use of a mobile device in testing the system with multiple browsers. The functionality that will be tested with the system is through desktop web browser functionality only.

## Approach – Jakob

Tests will be conducted per the documented test cases. The test manager will create test runs for each tester. The tester will execute the tests in the PharmaCare system and mark each case as Pass / Fail / Skip. The tester should leave notes on actual results and any other relevant details when possible.

When tests are marked as Fail, bug reports will automatically be created in the issue tracker.

Once complete, the test manager should review the test case and report back to the team.

## Pass/Fail Criteria – Dion, Jake

All core functionality of the systems should function as expected and outlined in the individual test cases. The following features must work in order for the software to pass; Write Prescription, Modify Prescription, Cancel Prescription, View/Print Prescription, View/Dispatch Prescription (Pharmacist), Print Medication Labels for OPD Patients, Print Medication Labels for indoor Patients, Produce Preparation List, Produce List for Nursing Station, Get Drugs Administered List, View Distribution Schedule, View List for Nursing Station, Transfer Patient and Cancel Prescription. There must be no critical defects found in regards to any intended functions. Any failed cases must not detrimentally affect the end users ability to utilise the application.

## Suspension Criteria – Jakob

Further testing should be stopped if the system experiences issues related to the login, failure to edit users, and failure to cancel all standing orders for drugs when a patient is discharged. Testing should also be stopped if any basic create, read, edit, and delete actions are failing to work.

## Test Deliverables – Brayden

The Test Deliverables of the testing activities as defined in this Test Plan are outlined in the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Deliverable** | **Test Author** | **Review/Distribution** | **Date/Milestone** |
| Test Plan | Test Lead | Project Manager, QA Manager, Test Lead | 22/11/2018 |
| Test Cases | Test Team | QA Manager, Test Team | 22/11/2018 |
| Test Data | Test Lead, Test Team | QA Manager, Test Lead, Test Team | 22/11/2018 |
| Test Summary Report | Test Lead | Project Manager | 28/11/2018 |

## Testing Tasks – Dion

The following activities must be completed:

* Test plan prepared.
* Functional specifications written and delivered to the testing team
* Environment should be ready for testing (test data, test logins, etc.).
* Perform the tests.
* Prepare test summary report.

## Test Environment Checklist and Setup – Rani, Jakob

Setting up a right testing environment ensures software testing success.

Test Environment Set up for executing test cases:

Test environment checklist:

Server side:

Windows 2008 server

Client Side:

Windows 7 (or) 8

Application Type: Web Application. (Internet).

Application Environment: .NET(c#)

IIS- web server

MSSql server-Database server

Set-up: On the command-line,setx  “ASPNETCORE\_ENVIRONMENT=Test dotnet test” to change the hosting environment  to Test environment.

Can enable parallel test execution in visual studio 2017 by using the button on the test Explorer toolbar.

Browser: Google chrome

**Other environmental needs include:**

* The system must be populated with nurses, staff, doctors, and pharmacists including a false list of drug orders in different amounts and products.
* The local system running the test must close all unnecessary applications which could cause slower operations.

## Responsibilities – Brayden

**Test Lead:** The test lead is responsible for all the responsibilities of test planning. The test lead needs to know testing methodologies in detail and needs to make important decisions in regards to the testing environment and how testing procedures must proceed with the development. The test lead must also supervise the testing activities that are to be completed by the test team and identify individuals in the test team that may require additional training. They need to ensure that the test team has specific resources to conduct the testing activities and update the project manager on the progress of the test activities being completed.

**Test Team**: The test team are responsible of developing test suites and need to have the ability in understanding usability issues. They are also responsible for having appropriate knowledge of test design and testing methodologies. The test team must be able to execute the testing and then analyse the results and submit the observations created to the development team. It is also very crucial that the test team have appropriate communication skills so they can interact with the development team proficiently and clients to improve understanding of product requirements or any modifications that need to be made.

## Staffing and Training needs – Jakob

The testing of the web application should be done by two testers. Both testers should conduct testing on two different systems. The testers assigned should have some knowledge of the code behind the application and visual studio to understand the underlying issues which may occur.

## Test Schedule – Brayden

The initial Test Schedule is as follows in the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task Name** | **Start** | **Finish** | **Effort** | **Comments** |
| **Test Planning** | **25/10/2018** | **22/11/2018** |  |  |
| 1. Create Test Plan | 25/10/2018 | 22/11/2018 | 28 D |  |
| 1. Review/Approve Test Plan | 22/11/2018 | 22/11/2018 | 1 D |  |
| **Test Case Design** | **8/11/2018** | **22/11/2018** |  |  |
| 1. Create Function Tests | 15/11/2018 | 22/11/2018 | 8 D |  |
| 1. Create GUI Tests | 8/11/2018 | 22/11/2018 | 15 D |  |
| 1. Review/Approve Design | 22/11/2018 | 22/11/2018 | 1 D |  |
| **Test Development** | **15/11/2018** | **22/11/2018** |  |  |
| 1. Develop Test Data | 15/11/2018 | 22/11/2018 | 8 D |  |
| 1. Review/Approve Test Development | 22/11/2018 | 22/11/2018 | 1 D |  |
| **Test Execution/Evaluation** | **26/11/2018** | **27/11/2018** |  |  |
| 1. Perform Setup & Testing | 26/11/2018 | 27/11/2018 | 2 D |  |
| 1. Evaluation | 27/11/2018 | 27/11/2018 | 1 D |  |
| **Summarize/Test Results** | **27/11/2018** | **29/11/2018** |  |  |
| 1. Prepare Test Results | 27/11/2018 | 28/11/2018 | 2 D |  |
| 1. Prepare Test Summary Report | 27/11/2018 | 28/11/2018 | 2 D |  |
| 1. Review/Approve Test Results | 28/11/2018 | 29/11/2018 | 2 D |  |

## Risks and Contingencies – Jakob

If during testing or development of the application more bugs than expected arise it can delay future testing and bug fixes. This can cause the whole schedule to be pushed back, in result delaying deadlines. If the testers don’t have a basic understanding of the PharmaCare Website, testing could be delayed or not conducted properly.

## Approvals – Jakob

The testers and developers of the team must agree on completion of the testing project and determine when it’s ready to proceed to the next step. If there is any disagreements or suggestions, we may halt proceeding to the next step.