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**RV University**

**Diabetes Prediction System**

**System Test Plan**

**Version1**

**07-06-2023**

**By Apoorva Hegde**

**RV University Restricted**

Page 2 of 8

**Document Identification**

|  |  |
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| Document Name | System Test Plan |
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Page 3 of 8

**System Test Plan**

**TABLE OF CONTENTS**

***1 Test Plan Identifier………………………………………………………………………….. 4***

***2 References………………………………………………………………………………………. 4***

***3 Introduction 4***

**3.1 Purpose & Scope 4**

**3.2 Objectives of System Testing 4**

***4 Test Items………………………………………………………………………………………… 5***

***5 Features to be tested……………………………………………………………………….. 5***

***6 Approach…………………………………………………………………………………………. 5***

***7 Item Pass/Fail Criteria……………………………………………………………………… 5***

***8 Suspension Criteria and Resumption Requirements………………………….. 5***

***9 Software Risk Issues…………………………………………………………………………. 6***

***10 Features not to be tested……………………………………………………………….. 6***

***11 Test Deliverables……………………………………………………………………………. 6***

***12 Environmental Needs…………………………………………………………………….. 6***

***13 Staffing and Training Needs…………………………………………………………… 6***

***14 Responsibilities……………………………………………………………………………… 6***

***15 Schedule………………………………………………………………………………………… 6***

***16 Test Cases……………………………………………………………………………….…….. 7***

***17 Approvals………………………………………………………………………………………. 8***

***18 Remaining Test Tasks…………………………………………………………………….. 8***

***19 Planning Risks and Contingencies…………………………………………………… 8***

1 Test Plan Identifier

Page 4 of 8 Page 4 of 8

Test Plan Identifieragagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsfefewegew

Diabetes1\_Prediction\_Software\_V\_1.0

Referencesagagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffwegdgrgtgdaafsa References

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| SRS | Dated:07-06-2023 | v1.0 |

3

Introductionagagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffwegdgrgtgdaafa

The project will undergo testing at three levels: Unit, System, and Acceptance. The approach section outlines the specific details for each level.

The anticipated timeline for completing this project is limited to two weeks.

The primary objectives of the System Test are as follows:

A. To validate that the functionality delivered by the development team aligns with the specifications outlined in the Design Specification Document and Requirements Documentation.

B. To focus on having the appropriate test cases rather than an excessive number of test cases.

C. To provide a dependable assessment of software quality, ensuring efficiency (minimum time and effort) and cost-effectiveness.

**3.1 Purpose & Scope**

Test management aims to establish and implement a testing strategy that is efficient, effective, and cost-effective.

**3.2 Objectives of System Testing**

The goals of Unit and System testing are to verify that every component of the application fulfills the functional requirements and to ensure that the application as a whole meets the specified application requirements.

**Functional testing:**

In functional testing, the user will input blood glucose level and blood pressure data through the Command Line Interface (CLI). The system will then provide output in the CLI, informing the person whether they are diabetic or not based on the input data.

Page 5 of 8

**System testing:**

In system testing, the Command Line Interface (CLI) is utilized to perform comprehensive testing of the entire system. Through the CLI, input values for blood glucose level and blood pressure are entered, and the resulting information about whether the person is diabetic or not is displayed in the CLI.

**Unit testing:**

Unit testing aims to validate the correct importation of all necessary modules and libraries essential for the smooth functioning of the program. Additionally, this test verifies the successful loading of data from the dataset into the dataframe. It also ensures that the process is executed without encountering any errors and that the program generates accurate outputs.

Test Items agagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffwegdgrgtgdaaf

|  |  |
| --- | --- |
| **A** | Command Line Interface |

4 Test Items

Features to be Tested agagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffweg

The testing will cover the evaluation of both the Command Line Interface (CLI) functionality and the accuracy of the program.

Approach agagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffwegdgrgtgdaafa

Our Software provides Command Line Interface (CLI) Screen that allows users to input data such as blood glucose level and blood pressure. The resulting output, indicating whether the person is diabetic or not, will be displayed on the CLI screen. Therefore, the CLI screen will be subjected to testing.

Item Pass/Fail Criteriaagagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffweg

9 Item Pass/Fail Criteria

Each test case will include input data, processing steps, and an expected output. If the actual output matches the expected output, the test case is considered passed; otherwise, it is deemed failed.

Page 6 of 8

Suspension Criteria and Resumption Requirements agagsgahgerhagaehkiohiohi uohk nioh

If the number of defects discovered during system testing exceeds a certain threshold, the test team will temporarily halt the testing activity. The testing process will resume once the development team has addressed and resolved all the identified defects.

Test Deliverables agagsgahgerhagaehkiohioh iuohkniohi

Deliverables

A. Test Plan

B. Test Cases

C. Test Scripts

D. Test Scripts Automation

12

Environmental Needs agagsgahgerhaga ehkiohiohiuo hk

Pentium i7 with windows 10 + product software. Product software will contain the Python Interpreter, all the necessary modules/libraries and the Test Data along with the Python program/code which does all the necessary processing.

Staffing and Training Needs agagsgahgerhagaehkiohio hiuo hk

14 Staffing and Training Needs

It is preferred that there will be at least one (1) full time tester assigned to the project for the system/integration testing phases of the project.

15 Responsibilities

Responsibilities aga gsgahgerhagaehkiohiohiuo hk

The system test team is accountable for executing all test scripts and producing a comprehensive report. This report includes the count of passed and failed test cases. The development team leader holds the responsibility for verifying and accepting all unit test plans and documentation. On the other hand, the project manager/test manager is responsible for overseeing all test plans and documentation for the project. The entire project team actively participates in reviewing system and detailed designs, as well as reviewing any change requests initiated by the user or arising from defects identified during development and testing.

Schedule agagsgahgerhagaehk iohiohiuo hk

1 Day

Page 7 of 8 Page 7 of 8

Test Cases agagsgahgerhagaehk iohiohiuo hk

|  |  |
| --- | --- |
| Test Case Number | 1 |
| Test Type: | Functional Testing |
| Case  Description: | Giving 45 and 63 as input values for Blood Glucose Level and Blood Pressure Respectively |
| Method: | Through the Command Line Interface |
| Expected Result: | Patient is Diabetic |
| Pass/Fail | Pass |
| Comments | Correct Result |

|  |  |
| --- | --- |
| Test Case Number | 2 |
| Test Type: | Functional Testing |
| Case  Description: | Giving 40 and 92 as input values for Blood Glucose Level and Blood Pressure Respectively |
| Method: | Through the Command Line Interface |
| Expected Result: | Patient is not Diabetic |
| Pass/Fail | Pass |
| Comments | Correct Result |

|  |  |
| --- | --- |
| Test Case Number | 3 |
| Test Type: | Functional Testing |
| Case  Description: | Giving 35 and 73 as input values for Blood Glucose Level and Blood Pressure Respectively |
| Method: | Through the Command Line Interface |
| Expected Result: | Patient is Diabetic |
| Pass/Fail | Pass |
| Comments | Correct Result |

|  |  |
| --- | --- |
| Test Case Number | 4 |
| Test Type: | Functional Testing |
| Case  Description: | Giving 40 and 88 as input values for Blood Glucose Level and Blood Pressure Respectively |
| Method: | Through the Command Line Interface |
| Expected Result: | Patient is not Diabetic |
| Pass/Fail | Pass |
| Comments | Correct Result |

|  |  |
| --- | --- |
| Test Case Number | 5 |
| Test Type: | Functional Testing |
| Case  Description: | Giving 70 and 100 as input values for Blood Glucose Level and Blood Pressure Respectively |
| Method: | Through the Command Line Interface |
| Expected Result: | Patient is Diabetic |
| Pass/Fail | Pass |
| Comments | Correct Result |

18 Test Cases

19 Approvals

Approvals agagsgahgerhagaehk iohiohiuo hk

The Test Plan has to be approved by the Project Manager, Development lead and Customer

|  |  |
| --- | --- |
| Project Manager - ABC | Approved |
| Development Lead – Apoorva Hegde | Approved |
| Customer - XYZ | Approved |

Page 8 of 8