Test Plan

for

Machine Learning in Diabetes

Version 1.0

Prepared by

Puneeth H S

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**Document Identification**

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**System Test Plan**

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1 Test Plan Identifier

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Test Plan Identifieragagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsfefewegew

Diabetes1\_Prediction\_Software\_V\_1.0

Referencesagagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffwegdgrgtgdaafsa References

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Introductionagagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffwegdgrgtgdaafa

The Project will have three levels of testing, Unit, System and Acceptance. The details for each level are addressed in the approach section.

The estimated timeline for this project is two weeks only.

At a high level, this System Test intends to prove that:

**A.** The functionality, delivered by the development team, is as specified by Design Specification

Document and the Requirements Documentation.

**B.** Having right test cases rather than more test cases.

**C.** Provide reliable indication of software Quality, Effective (minimum time and effort) and Economic.

**3.1 Purpose & Scope**

The purpose of test management is to ensure that a testing strategy is both devised and applied that is **efficient**, **effective,** and **economic**.

**3.2 Objectives of System Testing**

The objectives of Unit and System testing are to ensure that each element of the

application meets the functional and application requirements respectively.

**Functional testing:**

For the User Input of Blood Glucose Level and Blood Pressure data through Command Line Interface (CLI), the Person should be informed whether he/she is Diabetic or not through Output in the CLI.

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**System testing:**

The Command Line Interface (CLI) can be used to test the systems as a whole. The values of Blood Glucose Level and Blood Pressure are entered through the CLI and the Result whether the person is Diabetic or not will be displayed in the CLI as well.

**Unit testing:**

This test ensures that all the necessary modules and libraries required for the Program to run smoothly are imported correctly. This test also ensures that the data from the dataset is loaded into the dataframe. This test also ensures that the process is executed without any errors and the output is generated by the program accurately.

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Test Items agagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffwegdgrgtgdaaf

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

4 Test Items

Features to be Tested agagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffweg

Command Line Interface (CLI) and Accuracy of the Program will be tested.

Approach agagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffwegdgrgtgdaafa

Our Software provides Command Line Interface (CLI) Screen for providing the input data/values of a person’s Blood Glucose Level and Blood Pressure. The output/result whether the person is Diabetic or not will be displayed on the CLI Screen, hence CLI screen will be tested

Item Pass/Fail Criteriaagagsgahgerhagaehkiohiohiuohkniohioknoihigioniohiojklnoihsffweg

9 Item Pass/Fail Criteria

Every test case will have input and processing and expected output. If output is according to expected output the test case is passed, otherwise it is failed.10 Suspension

Suspension Criteria and Resumption Requirements agagsgahgerhagaehkiohiohi uohk nioh

During system testing if the number of defects is coming more the test team will suspend the testing activity. The test team will resume the testing activity when all the defects are fixed by the development team.11 T

Test Deliverables agagsgahgerhagaehkiohioh iuohkniohi

Deliverables

A. Test Plan

B. Test Cases

C. Test Scripts

D. Test Scripts Automation

12

Environmental Needs agagsgahgerhaga ehkiohiohiuo hk

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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 responsibility of system test team is to Execute all the test scripts and generate a report. The report contains the number of testcases passed and no of testcases failed. The development team leader will be responsible for the verification and acceptance of all unit test plans and documentation. The project manager/test manager is responsible for all test plans and documentation. The entire project team will participate in the review of the system and detail designs as well as review of any change requests that are generated by the user or as a result of defects discovered during development and testing.

Schedule agagsgahgerhagaehk iohiohiuo hk

1 Day

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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 |

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 – Puneeth H S | Approved |
| Customer - XYZ | Approved |

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