Machine Learning in Diabetes

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1) Test Plan Identifier

- To check the percentage of Diabetes, blood pressure glucose level in blood is required

2) References

- SRS (software requirement specification) document

3) Introduction

- A machine learning model is created to check if a person has Diabetes using a data where glucose and bp are features and diabetes as label. Using this data, a model is created for further uses.

4) Test Items

- Download data in CSV format
- Using pandas extract features and label from CSV file
- Build ML Model using ML Algorithm
- Predict and analyze

5) Software Risk Issues

-N/A

6) Features to be Tested

- Download data in CSV format
- Using pandas extract features and label from CSV file
- Build ML Model using ML Algorithm
- Predict and analyze

7) Features not to be Tested

-N/A

8) Approach

- To check the functionality/requirements by eantering the bloop pressure and
glucose level to get the required output

9) Item Pass/Fail Criteria
- To input and check if all the functionality/requirements is working and the desired output is given

10) Suspension Criteria and Resumption Requirements
- to suspend if any functionality/requirements method is not working up to the requirements
11) Test Deliverables
- System test plan, cases, scripts, automation, execution, summary report
12) Remaining Test Tasks
-N/A
13) Environmental Needs
-N/A
14) Staffing and Training Needs
- 1 people required to test the product

15) Responsibilities
- Report to be given about the process of the product
16) Schedule
- Start date of testing is 07-06-2023 to 12-06-2023

17) Planning Risks and Contingencies
- The machine used for testing is not working or not yet arrived
18) Approvals
-given by product manager if the product functionality is working without any error
19) Glossary
-SRS (software requirement specification)

Test cases
T_diabetes_1 = Take 45 as glucose and 63 as blood pressure as input and calculated output
required is 1 else it is fail
T_diabetes_2 = Take 40 as glucose and 92 as blood pressure as input and calculated output
required is 0 else it is fail
T_diabetes_3 = Take 40 as glucose and 50 as blood pressure as input and calculated output
required is 0 else it is fail (Negative test case)
T_diabetes_4 = Take 40 as glucose and 200 as blood pressure as input and calculated output
required is 0 else it is fail (Negative test case)
T_diabetes_5 = Take 20 as glucose and -10 as blood pressure as input and calculated output
required is 0 else it is fail (Negative test case)