**ASSIGNMENT-6**

**QUESTION-1**

Write SRS for Diabetes Project

**ANSWER**

SRS – Stands for Software Requirements Specification.

SRS = Requirements + Requirement Analysis

Requirement is to predict whether the given person is suffering from Diabetes given the person’s blood glucose level and blood pressure.

Requirement Analysis refers to the breaking down of high-level requirements into low level requirements.

1. Here, Requirement Analysis is that we should write a Machine Learning program which when given the person’s blood glucose level and blood pressure, predicts the chances of that person to be diagnosed with Diabetes.
2. Since our job is to predict the chances of a person being Diabetic or not, we will be using Classification Algorithms.
3. We have got the previous data in an csv file to build our Model
4. Blood Glucose Level and Blood Pressure Readings/Data/Values will be the Features for our Machine Learning Algorithm and the ‘Diabetes’ column in the csv will be the Label.
5. After building the Model, we can provide a person’s blood glucose level and blood pressure as the input data to the model, and we will be able to predict whether the person is Diabetic or not.

**QUESTION-2**

Write System Test plan for Diabetes Project

**ANSWER**

We will be using the IEEE-829 Template for writing the System Test Plan.

**THE IEEE-829 TEMPLATE :**

Test Plan Identifier: Diabetes\_Prediction\_ST\_001

Introduction: This test plan is written to do the system testing for Diabetes Prediction Software.

Test Items: The following will be tested: GUI (Graphical User Interface).

Features To Be Tested: The following features will be tested as part of system testing: GUI, Accuracy of the Code.

Features Not to Be Tested: Not Applicable

Approach: Our Software provides GUI Screen for providing the input data/values. The output/result will be displayed on the GUI Screen, hence GUI screen will be tested.

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.

Suspension Criteria and Resumption Requirements: During system testing if no of defects are 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.

Test Deliverables: Test plan, Test Cases, Test scripts, Test script automation.

Testing Tasks:

1. Setting up the test system with the product called Diabetes Predictor.
2. Execute all test cases+ Test scripts
3. Generate Report and share it with Development Team

Environmental Needs: Pentium i7 with windows 10 + product software

Responsibilities: The responsibility of system test team is to Execute all the test scripts and generate a report. The report contains no of testcases passed and no of testcases failed

Staffing And Training Needs: 1 Engineer is required for the System Testing of the Product.

Schedule: 1 Day

Risks And Contingencies: Not Applicable

Approvals: the test plan has to be approved by the project manager, Development lead and customer