# TEST PLAN OUTLINE (IEEE 829 FORMAT)

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# IEEE TEST PLAN TEMPLATE

## TEST PLAN IDENTIFIER

A Heart Attack Prediction Model using ML algorithms and Deep Neural Networks

## REFERENCES

## SRS

## Project Plan

## SOW

## INTRODUCTION

The purpose of this system test plan document is to write the test cases, test scripts, test script automation for the heart attack prediction system.

## TEST ITEMS (FUNCTIONS)

Following are the test items:

* Inputs of various medical parameters
* Tuning of algorithms to achieve high accuracy
* Prediction using various models

## SOFTWARE RISK ISSUES

Nil

## FEATURES TO BE TESTED

## Decision Tree

## Random Forest

## Logistic Regression

## K-Nearest Neighbours

## Naïve Bayes

## Support Vector Machines

## Deep Neural Networks

## FEATURES NOT TO BE TESTED

Nil

## APPROACH (STRATEGY)

Test the model built using various input data and check whether the model makes correct predictions or not.

E.g: Age: 65, Sex: 0, cp:0, trestbps:900, cholestrol: 248, fbs:0, restecg:0, thalach:122, exang:123, oldpeak:1, slope:1, ca:0, thal:2

Result: 1 (high chances of heart attack)

Age: 60, Sex: 1, cp:2, trestbps:140, cholestrol:170, fbs:0, restecg:1, thalach:155, exang:0, oldpeak:3, slope:1, ca:0, thal:2

Result: 0 (very low chances of heart attack)

## ITEM PASS/FAIL CRITERIA

## 

## Repeatedly testing the system with different features.

## 

## SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS

We use following suspension criteria for the test activities. For this project if we write 20 test cases, out of 20 if 25% test cases fail, we suspend the system test activities. The developers have to provide the build again for resuming the testing.

## TEST DELIVERABLES

* **Test Plan**
* **Test Script**
* **Test cases**
* **Test script automation**

## REMAINING TEST TASKS

**Nil**

## ENVIRONMENTAL NEEDS

## 

## Nil

## STAFFING AND TRAINING NEEDS

3 engineers for 1 week

## RESPONSIBILITIES

## Developing team is responsible for building of the program. Test team is responsible for all the deliverables mentioned above.

## SCHEDULE

## Oct 1st – Oct 14th

## PLANNING RISKS AND CONTINGENCIES

## 

**Nil**

## APPROVALS

## 

## Development team

## Project Manager

## Product Manager

## Customer

## GLOSSARY

* SRS: Software Requirement Specification
* SVM: Support Vector Machine
* KNN: K-Nearest Neighbors