**HEART DISEASE PREDICTION USING LOGISTIC REGRESSION**

Introduction

Heart disease is one of the most significant causes of mortality in the world today. In order to decrease the mortality rate of cardiovascular disease it is necessary that the disease should be diagnosed at a very early stage. Experts require an accurate tool that considering these risk factors and show certain result in uncertain term. Here designed an expert system to diagnose the heart disease using logistic regression .

**objective**

The goal of this project is to build a model that can predict the probability of heart disease occurrence, based on a combination of features that describes the disease. In order to achieve the goal, we used data sets that was collected by Cleveland Clinic Foundation in Switzerland. The dataset used in this project is part of a database contains 14 features from Cleveland Clinic Foundation for heart disease. The dataset shows different levels of heart disease presence from 1 to 4 and 0 for the absence of the disease. We have 303 rows of people data with 13 continuous observation of different symptoms

**INSTALLATION**

REQUIREMENTS:

**Server Side:**

            Operating System: Windows 10

            Processor: intel i3

**Client side:**

              Operating System: Windows 9x or above, MAC or UNIX.

            Processor: Pentium III or 2.0 GHz or higher

**Software components:**

* **Database:** SQL Server.
* Pycharm
* Windows 7 or high

**Hardware Components:**

* Processor – i3
* Hard Disk – 5 GB
* Memory – 1GB RAM
* Internet Connection

**Product Features**

There are two different users who will be using this product:

* Doctors
* Hospital management

The system comprises of 2 major modules as follows:

* **Admin Module**

1. Add Training Data
2. Add Doctor Details
3. View User Details
4. View Feedback
5. View Doc Details
6. View Training Data

* **User Module**

1. Register (With Details like Age, Sex, etc.)
2. Check Heart (By providing Details like

* Age in Year
* Gender
* Chest Pain Type
* Fasting Blood Sugar
* Resting Electrographic Results(Restecg)
* Exercise Induced Angina(Exang)
* The slope of the peak exercise ST segment
* CA – Number of major vessels colored by fluoroscopy
* Thal
* Trest Blood Pressure
* Serum Cholesterol
* Maximum heart rate achieved(Thalach)
* ST depression induced by exercise(Oldpeak)

1. System will accordingly view Doctor to consult.
2. Give Feedback

* View Doctor

When an input is given to this

model, it predicts whether the patient is having heart disease or not.

**Function**

from sklearn.linear\_model import LogisticRegression

logreg = LogisticRegression()

logreg.fit(X\_train, y\_train)

y\_pred = logreg.predict(X\_test)

Here y\_pred predict if there is disease or not .

LICENSE

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**CONTACT**

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