

NAME - ADARSHA KUMAR GUPTA

SECTION – KM046

REGISTRATION NUMBER - 11811996

EMAIL – adgta007@gmail.com



**L OVELY
P ROFESSIONAL
U NIVERSITY**

Abstract

The project is related to Heart Disease Prediction and the data is taken from Kaggle. There are various columns like chest pain type, resting blood pressure (in mm Hg on admission to the hospital), cholesterol level, fasting blood sugar, resting ECG, etc. These columns helped to get an understanding of which factors are responsible for the disease. Finding the relation among the columns using various visual plotting, made it possible to understand the dataset.

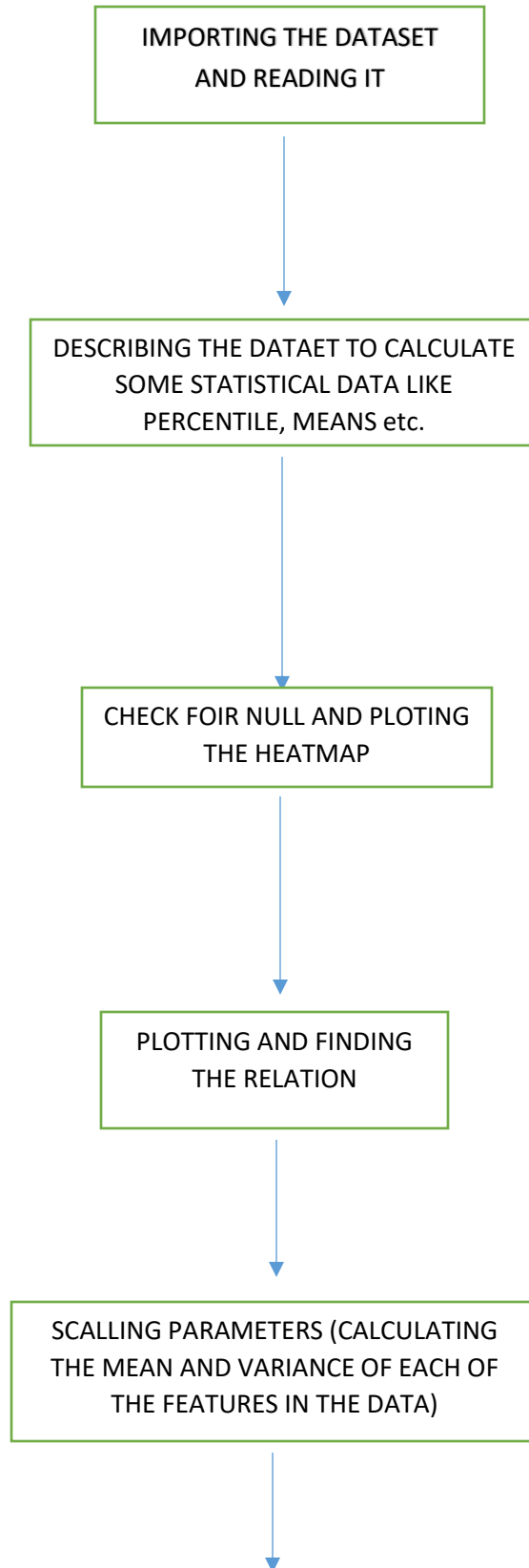
Dataset

Link of the repository -

<https://www.kaggle.com/ronitf/heart-disease-uci>

Github - <https://github.com/travellerR/Heart-Disease-Prediction-Using-Logistic-Regression>

FLOWCHART



DROPPED THE TARGET COLUMN



SPLITTING FOR TRAINING AND TESTING DATA



FITTING THE MODEL ACCORDING TO THE GIVEN
DATA AND



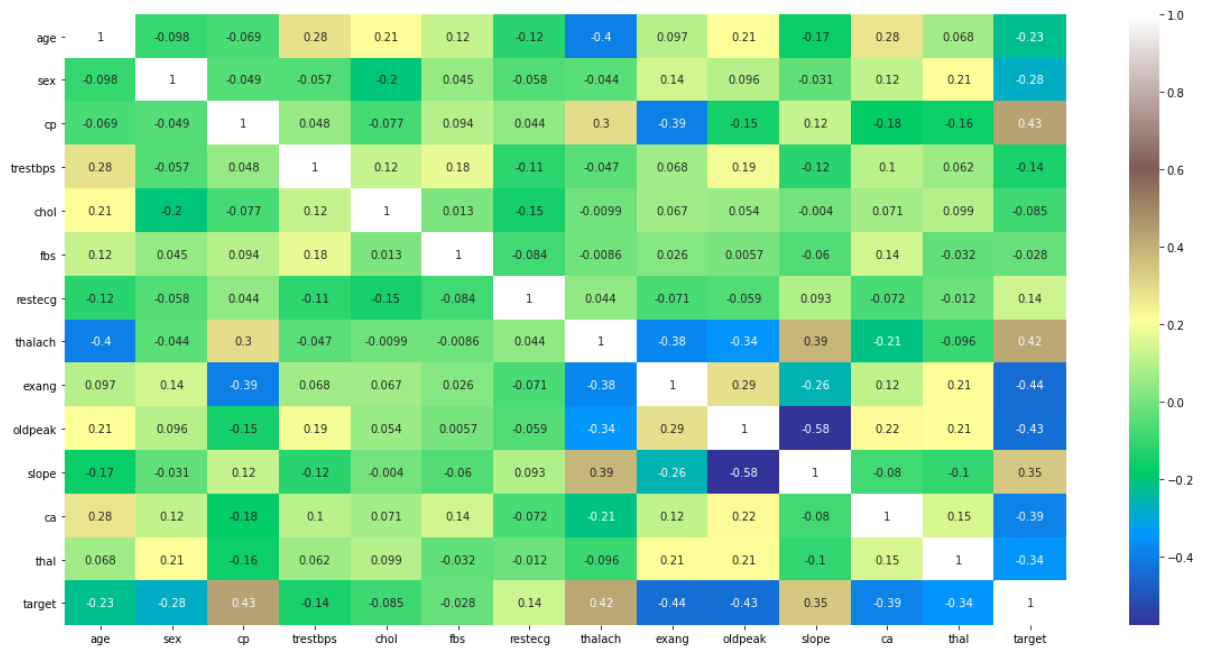
CREATING CONFUSION MATRIX FROM THE PREDICTION
AND FIND THE TESTING ACCURACY =
$$(TP+TN)/(TP+TN+FN+FP)$$

Testing Accuracy: 0.9230769230769231

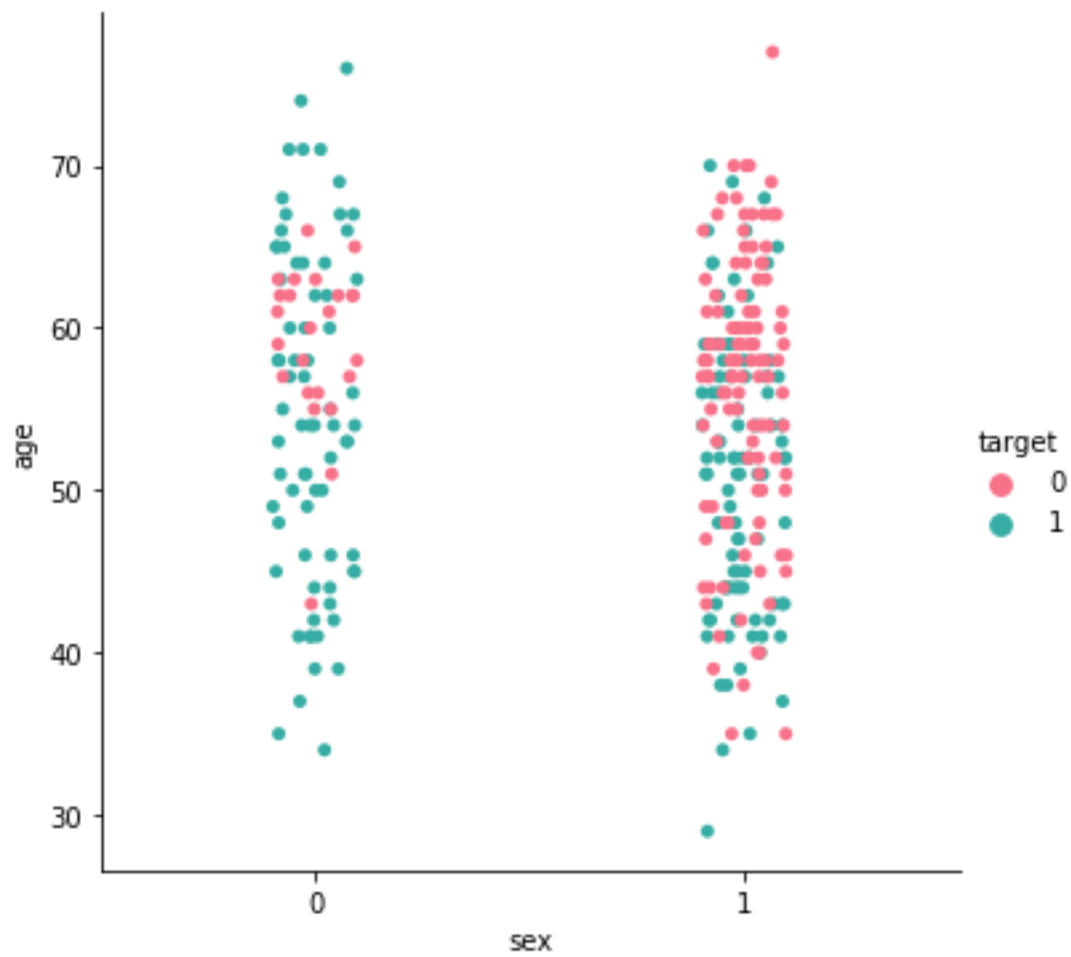
EXPERIMENTAL SETUP

JUPYTER NOTEBOOK

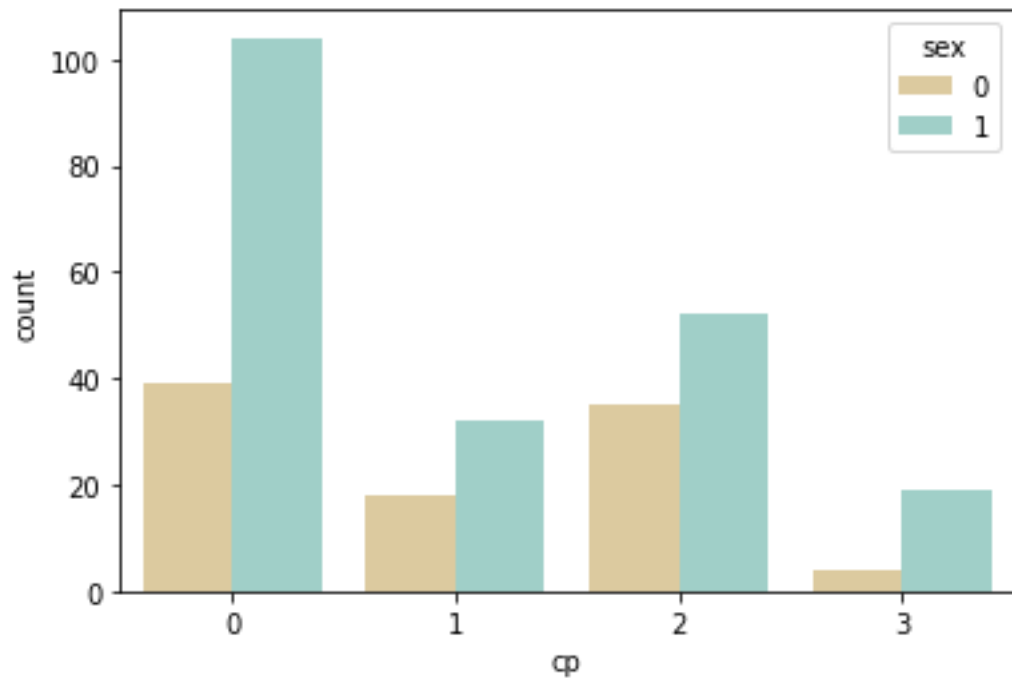
RESULTS



HEATMAP



CATPLOT



COUNTPLOT

CONCLUSION

After plotting the various relations, it was found that the various factors that were actually responsible for the heart disease were -

- AGE
- RESTING BLOOD PRESSURE
- CHOLESTROL
- MAXIMUM HEART RATE ACHIEVED
- DEPRESSION INDUCED BY EXERCISE RELATIVE TO REST

USING LOGISTIC REGRESSION THE RESULTS WERE 92% ACCURATE.