

OBJECTIVES

Heart is one the most vital organ in the human body. When we talk about heart disease, it refers to a variety of illness where the heart is not working then it should, such as blood vessel obstruction. According to many researches that have been conducted through a period of time have found out that heart failure and heart disease has been the cruel cause of death in human beings. What aggravates this situation is that most of these diseases are being diagnosed at later stages at which it is complicated to control. But if somehow, we can diagnose these diseases at its early stage, then we can surely cure the disease. The main aim of this paper is to use the various sorting algorithms of data science framework to detect the chances of having a heart disease. This algorithm can be used on heart records of the patient or by using it on sorting reports. This research was conducted and tested upon various algorithms to test its accuracy like Logistic Regression, Random Forest, Vector Support and XG-Boost. After applying these algorithms of prediction model has been developed. Healthcare industries generate enormous amount of data, so called big data that admit hidden knowledge or pattern for decision making. The huge volume of data is used to make decision which is more accurate than intuition. Exploratory Data Analysis (EDA) detects mistakes, finds suitable data, checks assumptions and determines the correlation among the explanatory varying. In the context, EDA is considered as study data that excludes inferences and statistical modelling. Calculus is an essential technique for any profession as it forecast the future and hidden pattern. Data calculus is considered as a cost effective applied science in the recent past and it plays an essential role in healthcare which includes new research findings, hand brake situations and outbreaks of disease. The use of calculus in healthcare improves care by help preventive care and EDA is a vital step while examine data. In this paper, the risk factors that causes heart disease is considered and predicted using K-means algorithm and the analysis is carried out using a publicly usable data for heart disease. The dataset holds 209 records with eight attributes such as age, chest pain type, blood pressure, blood glucose level, ECG in rest, heart rate and four types of chest pain. To predict the heart disease, K-means clustering algorithm is used along with data calculus and visual image tool. The paper discusses the pre-processing methods, classifier functioning and valuation metrics. In the result section, the pictured data shows that the prediction is accurate.