

Prediction of Health Insurance Charges

Project Report

February 1, 2024

Praveen n

Introduction

Getting a health insurance now-a-days is becoming as important as breathing. In these tough times of so many diseases like COVID-19, dengue, so many cases of heart attacks, no one is definite about their life and the primary member on whom the whole family is dependent, can't risk about the drastic change of conditions if something happens to him unfortunately. So here we are analysing about health insurance and how much money you must pay with respect to different factors in your day-to-day life.

We are also trying to predict using different regression techniques and then comparing those techniques with one another. By analysing we also see the things which we can avoid maximizing our insurance value as a customer and lead a healthy life.

Project Statement

The goal is to analyse the health insurance data and to predict the amount to be paid by an individual with respect to his day-to-day life.

1. Download Dataset

2. Analysing dataset with help of different graphs

3. Implementing different regressions techniques on the dataset

4. Comparing between the regression techniques.

Project Dataset, Code

The dataset and suggested solution for this problem (including the code and outputs) can be downloaded from the following link:

Using the dataset provided, we built a simple analysing model and using MLR and PLR we predicted output and further we also compare them.

Project Output

By looking at the graphs and by Judging by the R2 scour results in the notebook, we can easily conclude PLR is better for prediction than MLR.

PLR with degree 3 performs best followed by 2, 4, 1(MLR) respectively

I achieved 88% of Accuracy in our model



