Predicting life expectancy using machine learning

Introduction

In this project we are trying to create a new model of predicting the life expectancy in India based on the data provided is
The data we have is from a timeframe from 2015 to 2022. The output algorithms have been used to test if they can maintain their accuracy in predicting the life expectancy for data they haven't been trained for. Five different algorithms have been used:

- Linear Regression
- Polynomial Regression
- Logistic Regression
- Ridge Regression
- Lasso Regression

Project Requirements

The scope of this project is to predict the life expectancy of people in the coming years. Using approximate assumptions and the limited amount of research in this area, an approximate prediction can be made about a 15% decline in life expectancy in the future. If it does, then a best guess is that the mean value – of the range of possible life expectancies in 2050 is 70 years, which is close to the current value of female life expectancy in the world. Discussions among a group of experts and systematic consideration of various scenarios would undoubtedly produce values different from the ones discussed above, but these values illustrate the approach according to the research.

Functional Requirements

- Create a data model based on the given database.
- The dataset are made available to the public to the purpose of health

data analysis and further open source research.

- The dataset will be sensitive to changes in regions, cultures, countries, climates, etc. Hence it will be difficult to include the data from all regions from arond the world and therefore we will be focusing on different regions of India itself.

Technical Requirements

- The merged dataset by using the databases in the csv formats.
- We can use multiple datasets to improve our machine learning model and process them with the help of data analytics libraries in pyhton (like scikit-learn and keras)

Software Requirements

- Python development environment, MS Excel
- IBM Cloud, IBM Watson