Project Name: Predicting Life Expectancy using Machine Learning
Project Manager: Etukala Jaswanth Reddy Date:24/05/2020

Project Scope

Project Summary:

A typical Regression Machine Learning project leverages historical data to predict insights into the future. This problem statement is aimed at predicting the Life Expectancy rate of a country given various features.

Life expectancy is a statistical measure of the average time a human being is expected to live, Life expectancy depends on various factors: Regional variations, Economic Circumstances, Sex Differences, Mental Illnesses, Physical Illnesses, Education, Year of their birth and other demographic factors. This problem statement provides a way to predict the average life expectancy of people living in a country when various factors such as year, GDP, education, alcohol intake of people in the country, expenditure on healthcare system and some specific disease-related deaths that happened in the country are given.

Research of Previous:

In building this project we use the data from an online source. Which helps to build and train the model.

Functional Requirements:

The project flow will be as follows:
1.Preprocessing of the dataset- Cleaning of the dataset, Eliminating noise
2.Exploratory Data Analysis
3.Spliting the dataset into training data and testing data
4.Training the model using machine learning algorithms
5.Prediction of the model by user-input
6.Checking accuracy, R2 score, RMSE of the model
7.Optimizing if needed
8.Deploying the model
9.Creating UI using Node-Red

Software Requirements:

IBM Watson, IBM Machine Learning Services, Github, Python v3, IBM Notebook / Jupyter Notebook.

Deliverable:

The completion of the project will help in predicting the life span of an individual considering various factors like year, GDP, education, alcohol intake of people in the country, expenditure on healthcare system and some specific disease related deaths.

Project Team:

Individual project.

Project Schedule:

The project is to be completed in 1 month and work for atleast 5 days a week. The project can be divided into two phases, one to build the model and the other for UI**.**

Out of Scope:

In the project, the user will not able to modify or not able to increase the accuracy of the ML model.