PROJECT ON

“PREDICTING LIFE EXPECTANCY USING MACHINE LEARNING”

Prepared by:
RIYA KALBURGI

Project Summary:

“Predicting Life Expectancy using Machine Learning” aims, as the name suggests, to predict the lifespan on a human being, based on diverse datasets, in a demographic region. The life of a human depends on various factors such as Regional variations, Economic Circumstances, Sex Differences, Mental Illnesses, Physical Illnesses, Education, Year of their birth and other demographic factors. The project aims to predict an average life expectancy based on these and several other factors. This project finds the expected solution using various machine learning algorithms such as:

Linear Regression
Logistic Regression
SVM
Clustering
Polynomic Regression

The aim of the project is to find the relationship of the various factors with the lifespan of an individual using the ML Algorithms mentioned above.

The dataset used for the prediction contains data from year 2000 to 2015. It contains more than 2500 entries and around 22 columns with various features like Population, Status, Alcohol, Infant Deaths etc., which aids the prediction of the model.

Project Requirements:

This project fundamentally aims in predicting the life expectancy. The primary requirement of the project is the suitable dataset which will aid the prediction. The machine learning model is trained on the basis of the data provided, such that it could predict the average lifespan of an individual in the coming years.

Functional Requirements:

1. The dataset should be preprocessed before applying prediction.
2. The data model must be created on the basis of preprocessed data.
3. The data model must then be converted into a module for further use, after the data is updated.
4. The data should be implemented using IBM Watson which should then be connected to Node-Red for the User Interface.

Technical Requirements:

1. The dataset must be in csv format.

2. Machine Learning Algorithms must be applied with the help of Python.
3. IBM cloud account.
4. IBM Watson and Node-Red flow.

Software Requirements:

1. Python IDE
2. Excel
3. IBM Cloud
4. IBM Watson
5. Node-Red

Project Deliverables:

1. Collect the data.
2. Prepare a model for predicting life expectancy based on the data collected.
3. Prepare a module for prediction.

At the end of the project, we will be able to predict the life expectancy of an individual based on the model created.

Project Schedule:

The project is scheduled to begin from 15 May 2020 and will be completed within 23 days.

Project Team:

This is a solo project.