PREDICTING LIFE EXPECTANCY USING MACHINE LEARNING

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1. PROJECT SUMMARY -

- The aim of this project is to predict the life expectancy of people belonging to a particular country.
- This regression based Machine Learning model makes predictions on the basis of several factors that include the country they belong to, its GDP, economic circumstances, gender ratio, mental & physical illnesses, literacy level, year of their birth etc.

2. PROJECT REQUIREMENTS -

- Collect and analyse data from dataset (https://www.kaggle.com/kumarajarshi/life-expectancy-who?rvi=1)
- Create the necessary IBM cloud service
- Make a regression model, and train the model
- Create end points for node-red integration
- Build node-red flow to integrate ML service

3. FUNCTIONAL REQUIREMENTS -

- Building a Watson notebook
- Collecting the dataset
- Preprocessing the data
- Splitting data into training and testing data
- Training the model using Regression
- Predicting the avg life expectancy of the test data
- Checking Mean Absolute Error, Mean Squared Error, Root Mean Squared Error and R2_Score
- Deploying the model
- Creating a User Interface using Node-Red flow

4. TECHNICAL REQUIREMENTS -

- Computer / Laptop
- Python 3 IDE
- Minimum 2.2 GHz Processor
- Any Operating System

5. SOFTWARE REQUIREMENTS -

- Python
- Machine Learning
- IBM Cloud Services
- IBM Watson Studio
- Node-Red flow

6. PROJECT DELIVERABLES -

- This project is about predicting the average life expectancy of people in a particular country.
- With the help of this model, we will be able to predict any user's average life expectancy given certain individual health, social and educational factors, and given the country's economic factors such as GDP.

7. PROJECT TEAM -

- There is no team, it is an individual project.

8. PROJECT SCHEDULE -

- This project is to be completed within a month.