# PREDICTING AVERAGE LIFE EXPECTANCY

➤ **Project Summary:**

It is a typical Regression Machine Learning project which is aimed at predicting average Life Expectancy rate of various countries taking in acount of several features which serve as a historical data such as 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 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.

➤ **Project Requirements:**

- An appropriate machine learning model.
  Here multivariate linear regression model is used as it incorporates various
  features and the predictions are the continuous values.
- Programming language such as python.
- An appropriate computing platform such as IBM cloud.
- Morever some important Libraries such as Pandas,Numpy,SciKit Learn,Seaborn,MatplotLib.
- A tool to generate URL for the model to be accessible globally.

➤ **Functional Requirements:**

- At the front-hand, a webpage taking the necessary inputs from the user to implement the designed model.
- At the backhand, the input gets processed and finally gives the desired output,here the average life expectancy.

➤ **Technical Requirements:**

- Performance of the system may vary for various inputs,since the model is designed based on a typical data set.
- Accuracy of the system is not up to 100% ,but gives a fair output which is reliable.
- It is accessible globally, but however its performance may get affected while handling a myriad of requests concurrently.
- Its simple to access and is manageable.

➤ **System Requirements:**

- It can run on any operating system.eg ios/windows.
- It requires certain memory to hold data.
- Requires internet connection.
- Requires an efficient CPU power to improve speed.

➤ **Project Deliverables:**

This project delivers the predicted average life expectancy based on the input provided.

➤ **Project Team:**

Sweta Patel
A Computer science student at Maharaja Sayajirao University of Vadodara.

➤ **Project Schedule:**

- Deciding the flow of the project.
- Performing the tasks such as
  1) Creating the ML model
  2) Setting up its URL.
  3) Integrating it with node-red to create webpage for it.
- Reviewing of the tasks for maintaining their correctness.