**Project Name: Predicting Life Expectancy using Machine Learning-SB52187**

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**Project Scope Document**

**1. 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.

**2.Project Requirements:**

**2.1 Functional Requirement:**

Predicting life expectancy rate of a country.

**2.2 Technical requirements:**

Python, IBM Cloud, IBM Watson, Node-Red App, Auto AI experiment

**Hardware Requirements:**

processor-i5 8th generation

**3.Research of Previous:**

The data set used for building the model was provided by the World Health Organization (WHO) and was found on Kaggle.

**4. Algorithms:**

Importing data into the Jupyter notebook.

Checking for null values.

Cleaning data by filling the empty cells with the average value of that country-wise.

Visualizing data.

Splitting the data into training and test sets.

Training a linear regression model on the training set.

Testing the data against the test set and finding the coefficients of correlation of each parameter with the prediction parameter.

Finding the accuracy of the model

**5.Deliverable**

A machine learning model that will predict life expectancy(software).

**6. Out of Scope**

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