**Project Statement**

**Predicting Life Expectancy Using Machine Learning**

**Project Summary:**

**Description:**

Life expectancy is a 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 the healthcare system and some specific disease related deaths that happened in the country are given.

**Objective:**

To predict life expectancy, this application is a perfect use case for regression, which determines the relationship between one dependent variable (life expectancy) and a number of independent variables (development indicators).

**Outputs:**

Predicting Life Expectancy using Machine Learning by getting input from the user and providing with the life prediction.

**Project Requirements:**

1. we need a cloud account to use some features in our project.
2. We need to create an instance on the Watson studio.
3. We need to an instance on node-red.
4. We need a cloud platform to deploy the project.

**User Requirements:**

1. Users must have a web browser to access this service.

Provide the model with the input fields. The model will return the output as the average predicted lifespan.

**Technical Requirements :**

The technology we will be using here is **Machine Learrning**. ML is playing a crucial role in the current indusrty. ML is being used everywhere in current trends. In the current project, we are goint to use IBM WATSON STUDIO, IBM CLOUD features. Also, we need **python programming** in some areas to complete this project.

**Software Requirements :**

1. We'll be using a few softwares, even cloud platforms to deploy the project. We are using IBM cloud for deploying the project and creating necessary cloud services.
2. We are using IBM Watson services.
3. We are using NODE-RED app feature from ibm cloud services
4. Python 3
5. IBM Watson Studio.
6. Dataset to train our ML model

**Project Deliverables :**

**Project Title:** Predicting Life Expectancy using Machine Learning

**Project Id:** machine\_learning

**Project duration: 30 days**

**Project Manager:** Akshita Sandip Khandelwal.

**Project Team:**

There's no team for this project. This project is done individually

**Project Schedule:**

This project is scheduled for 30 days. That means we need to build a web application with integration to all these services & deploy all the services on the IBM Cloud Platform within 30 days of span.

Dataset Reference: <https://www.kaggle.com/kumarajarshi/life-expectancy-who>

**Project Manager:**

Akshita Sandip Khandelwal