PROJECT SCOPE DOCUMENT

PROJECT ID	PROJECT TITLE	START DATE
SPS_PRO_215	**Predicting Life Expectancy using Machine Learning**	05/19/2020
CANDIDATE NAME	PROJECT OBJECTIVES	END DATE
G.Amrutha	The main objective of this project is to predict the life expectancy using Machine Learning	06/19/2020

Project Summary

Machine Learning is undeniably one of the most influential and powerful technologies in today's world.Machine learning is a sub field of artificial intelligence (AI). The goal of machine learning generally is to understand the structure of data and fit that data into models that can be understood and utilized by people.

In this project we are building a User Interface, by using IBM cloud service **NODE-RED.** Before rushing into the project we should take a step to plan and schedule the work to make the project successful.As Project development environment is very important for the successful execution of the project.

•Our first step is to set the development environment to communicate with our team,document our work and share deliverables with our clients and etc.

•Next we have to explore IBM cloud platform by creating an **IBM Academic Initiative account** and get started with IBM cloud.

•Our next step is to Create a Node-RED Starter application running in the IBM Cloud and Secure the application.
.

•The next step is to Explore IBM Watson Services to infuse Watson into your apps and workflows to tap into organizational data and put AI to work across multiple departments.

•Next we have to Build and train AI models with Watson Studio.Deploy and run models through one-click integration with IBM Watson Machine Learning.

•In Watson studio,we need to add assets like datasets,notebook.Download the dataset from reference and code in notebook.After building the model we need to create user interface with the help of node-red.

   Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.

Project   Requirements

        This project requires knowledge of Machine learning algorithms,various types of libraries in Python and IBM services.

1)Functional   Requirements:

        The functionality requirement is Predicting life expectancy rate of a country.

2)Technical   Requirements:

      The Technical requirements are Python Programming, IBM Cloud, IBM Watson Studio cloud applications.

3)Hardware   Requirements:

      Processor-i3,7th generation or higher Speed-2GHz or more

4)Software   Requirements:

We use IBM cloud services like IBM Watson Studio,IBM Watson Machine Learning and Node-red starter kit.

Project   Deliverables

A machine learning model that will predict life expectancy(software).Finally,the deliverable of this project is:
Client-side(Front end):Webpage taking inputs from user to predict the model.
Server side(Back end):Take inputs from user and predict the output life expectency

Problem   Description

A typical Regression Machine Learning project leverages historical data to predict insights into the future. This problem statement is aimed at predicting 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 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.

Project   Team

There is no team ,only individual work.

Project Schedule

This project is scheduled for 1month to build a node-red

web application with integration to all the services & deploy all the services on IBM Cloud Platform within a 1 month of time.