

PROJECT NAME: IISPS_INT_2138_Predicating Life Expectancy using Machine learning

Date: 19-05-2020

PROJECT SCOPE DOCUMENT

PROJECT AIM & PURPOSE:

A typical Regression Machine Learning Project leverages historical data to predict insights into the future. This problem statement is aid at predicating 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 illness, Physical illness, 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 OBJECTIVES:

The objective of the project is to predicate life expectancy rate of a country using machine learning with python and without python. In order to achieve the goal of the study, few experiments are performed as below:

Predicating Life Expectancy with python:

- Collect the Dataset required for the project from external sources.
- Create necessary IBM cloud services and also create Watson studio which is present in IBM cloud services.
- Configure the Watson studio and create Machine Learning service
- Create a Jupyter Notebook in IBM Watson and import the data set which is downloaded earlier.
- Fill the Jupyter Notebook with required python code.
- Build Node-RED Flow to Integrate ML services

Predicating Life Expectancy without python:

- Collect the Dataset required for the project from external sources.
- Create necessary IBM cloud services and also create Watson studio which is present in IBM cloud services.
- Configure the Watson studio and create Machine Learning service
- Create a Jupyter Notebook in IBM Watson and import the data set which is downloaded earlier.
- After importing the data set create AUTO AI Experiment. This AUTO AI writes the code for you.
- Build Node-RED Flow to Integrate AUTO AI.

PROJECT REQUIREMENTS:

i. FUNCTIONAL REQUIREMENTS:

Predicating life Expectancy rate of a country.

ii. TECHNICAL REQUIREMENTS:

Software Requirements:

Python, IBM Cloud, IBM Watson

Hardware Requirements:

Processor: INTEL CORE i3

speed: 2GHZ or more

Hard Disk Space: 10GB or Higher

RAM: 2GB or Higher

Input Devices: Keyboard, Mouse

Output Devices: Monitor