PREDICTING THE LIFE EXPECTANCY

PROJECT SUMMARY:

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 REQUIREMENTS:

To build a machine learning model to predict the life expectancy using past data.

FUNCTIONAL REQUIREMENTS:

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.

TECHNICAL REQUIREMENTS:

To complete this project we require basic ideas about machine learning concepts and basics of python.

SOFTWARE REQUIREMENTS:

IBM Cloud services, IBM Watson services, Python

PROJECT DELIVERABLES:

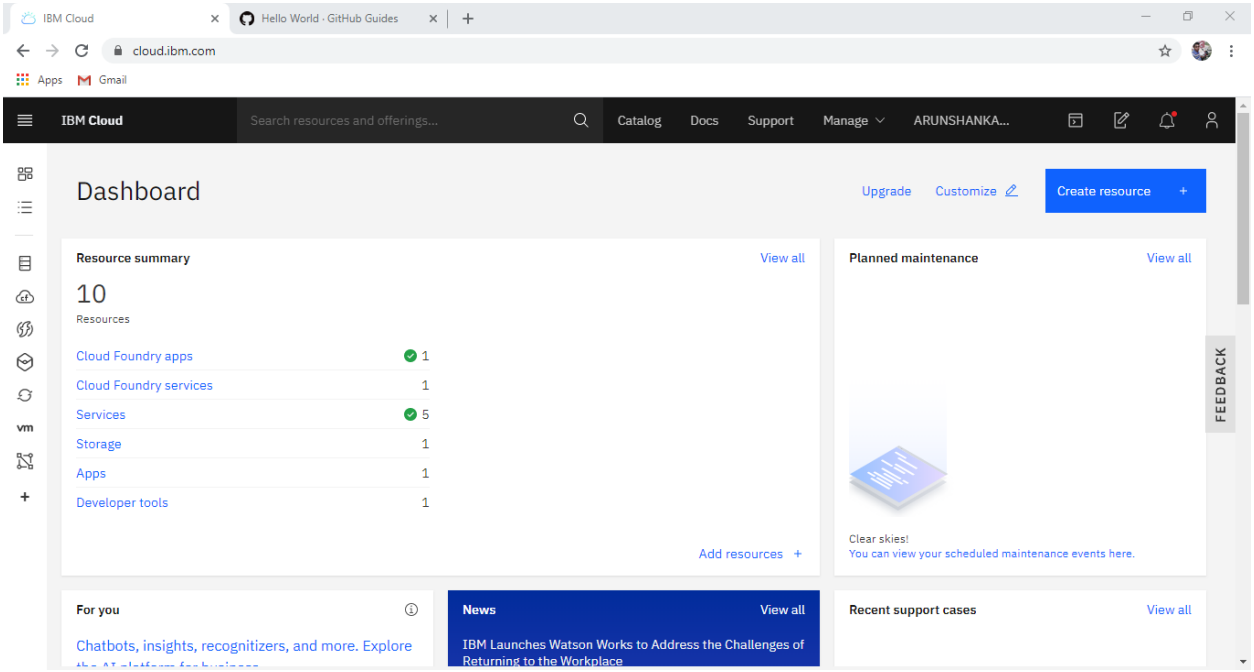
Hands-on experience in designing a machine learning model.

PROJECT TEAM:

ARUNSHANKAR M
IVth yr,
Automobile engineering,
S.V.C.E
Mail id: arunshaank18@gmail.com
Ph no: 9840971406

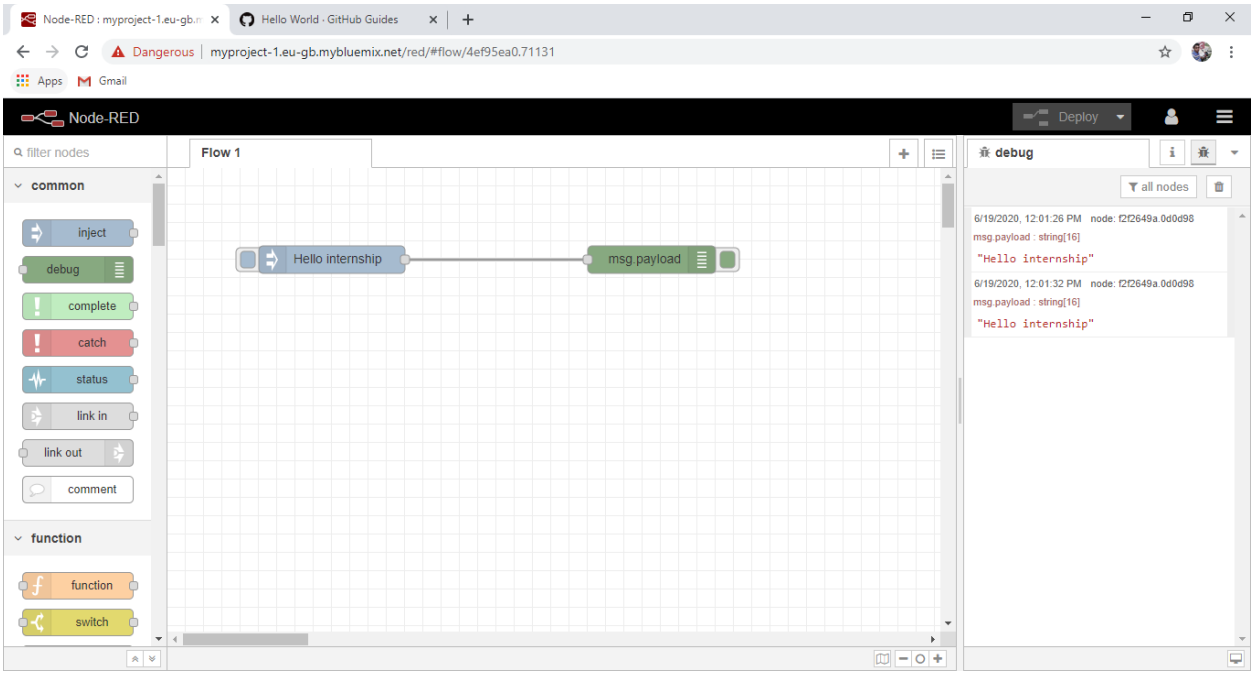
PROJECT SCHEDULE:
30 days

PROJECT FLOW:
Step-1 : Create an IBM cloud account:
IBM cloud services are used fully in this project. IBM provides free platform to the society to build their own projects. It is very much useful and easy to learn.



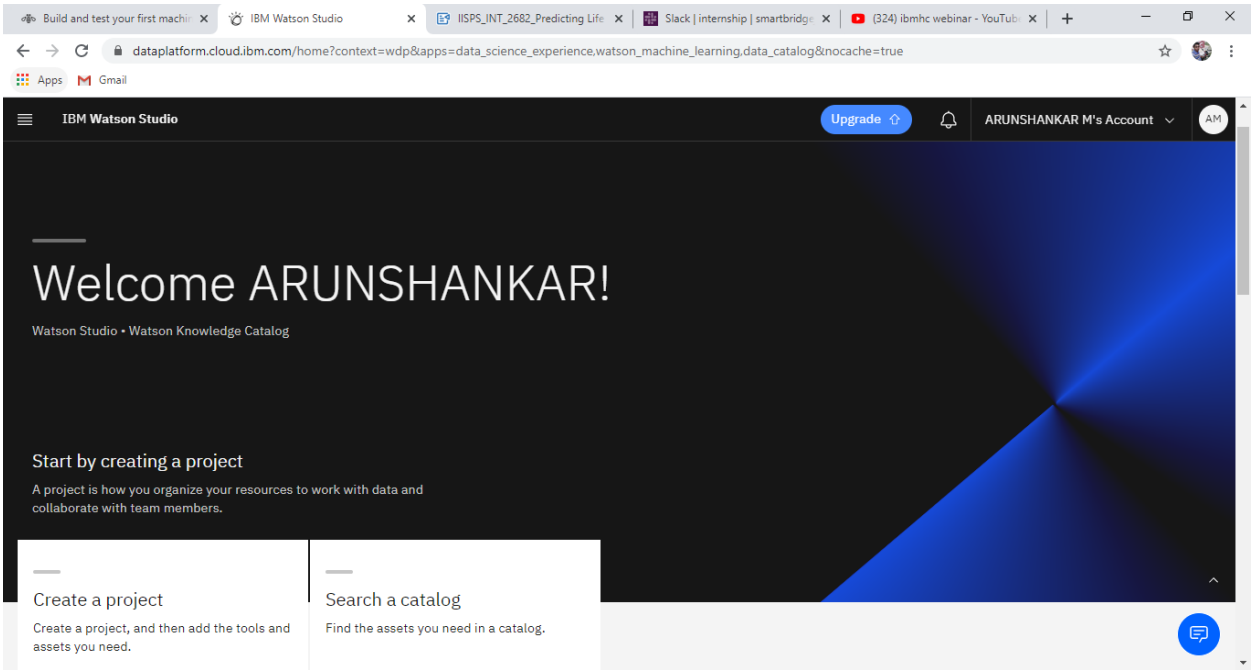
Step-2: Choose the required services:
Some of the services used in this project are listed below

Node red platform:
Node red promotes programming without coding. It is very much useful for connectivity and is very much interactive. It is mostly useful for beginners in coding. We should only connect the different nodes



IBM Watson studio:

Our project is created in IBM watson studio. To be precise IBM provides machine learning services that is utilised in this project.



Step-3: Add assets to the project:

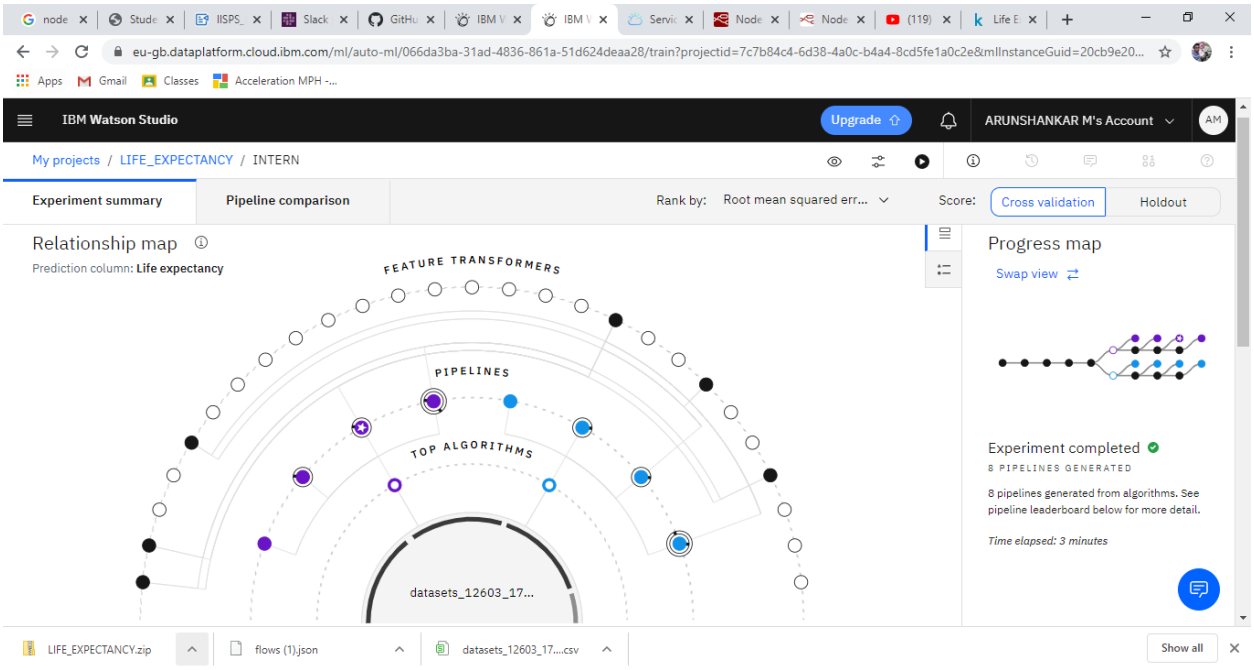
The most important thing in building a ML model is the data. Dataset for this project is taken from kaggle. It contains data like different types of diseases in the country, mortality rate in the country, status of the country, etc..

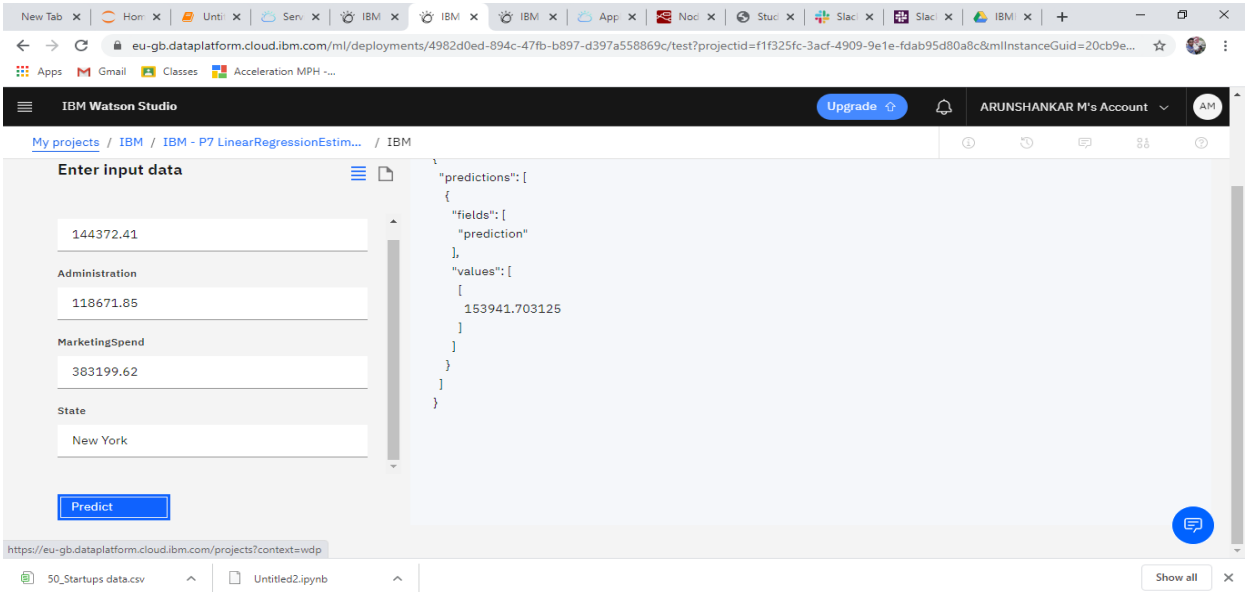
DATA SET FOR THE PROJECT:

https://www.kaggle.com/kumarajarshi/life-expectancy-who

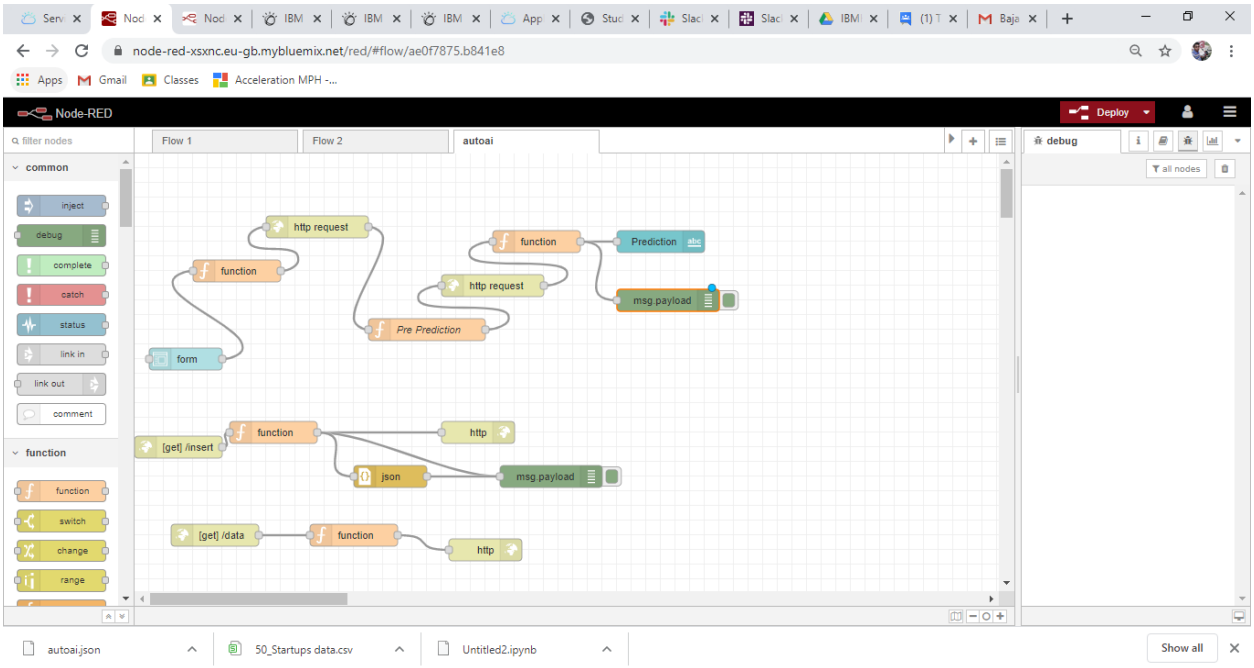
AUTOAI MODEL:

An AUTOAI model is built using the preprocessed data set. This is an asset provided by IBM where the ML model is automatically built using the dataset. Differet ML techniques are run using Pipelines. Based on the score it automatically provides the best model for the prediction.



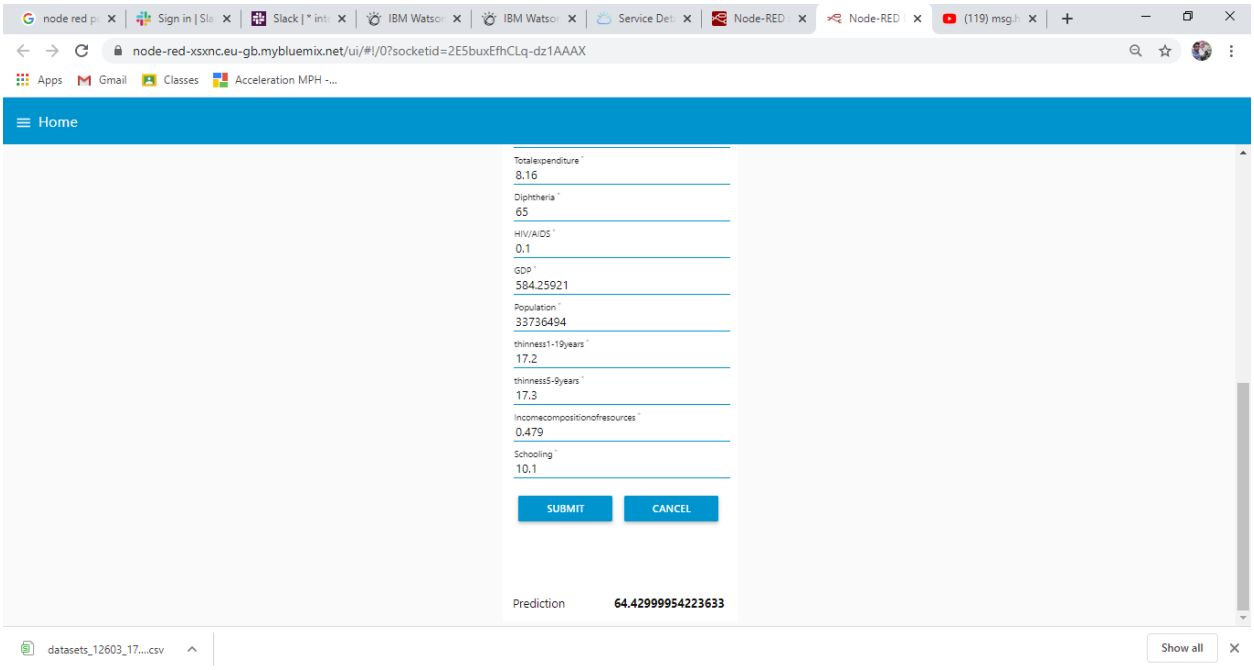


Step-4: Upload this model to NODE RED Flow editor:



Step-5: Validate the results:

Finally, the results are validated by giving the input data and the accuracy is around 99.5%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