* **Project Name** : Predicting Life Expectancy using Machine Learning SB26623
* **Project Id** : SPS\_PRO\_215
* **Project Manager** : Abhishek Moharir **Date** : 10/06/2020
* **Project Summary** : The ongoing era of technology like electronic health system, cloud computing , big-data , Internet of Things(IOT) ,mobile applications etc. are widely providing health related services . Some applications provide health related data such as sleep monitoring , pulse-rate , calorie expenditure etc. The use of these techno-buzzwords can be extended to predict Life Expectancy of people .With the evolution of Data Science technology like Big-Data, data analytics and data wrangling , it is possible to use these technologies in health related services . The use of advance Machine Learning techniques can predict more accurate results .The big data and machine learning techniques can benefit public health researchers with analysing thousands of variables to obtain data regarding life expectancy and anxiety disorders. This project aims at predicting Life Expectancy rate of a country using advance technologies . It is denoted by ex which means the average number of subsequent years of life for someone now aged ‘x’ .

The prediction can be done more accurate if proper machine learning techniques are applied . The data used for predicting life expectancy is easy to analyse with respect to the data used for predicting life expectancy of other living organisms .

* **Project Requirements** : The prediction is based on past data . Data to predict the expected outcome includes many parameters to integrate such as country population , adult mortality rate, infant deaths, polio, GDP. Other factors like lifestyle , medical history , heath related policies and environmental conditions also contribute highly in predicting Life Expectancy . Data science technologies and machine learning algorithms are widely used is making analysis of raw data and predicting outcome .
* **Functional Requirements** : Predicting life expectancy with the help of machine learning
* **Technical Requirements** ; The advanced libraries in Python programming language like numpy , pandas , matplotlib , scipy , scikit-learn , seaborn , statsmodel , etc are widely used in data analysis and data visualization . Machine learning algorithms such as linear regression , decision tree regression , random forest regression help a lot in creating a more accurate model .
* **Software Requirements** : Python , Jupyter notebook ,IBM Cloud, IBM Watson
* **Project Deliverable** : The final output of this project is to develop a machine learning model that will process given data and predict most accurate output . The life expectancy predicted using this model will be based on lot many factors that affect life period of humans .