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Predicting Life Expectancy of Countries and Deriving Health Insights

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Overview

This is a data science project that deals with data from the Global Health Observatory (GHO) under World Health Organization (WHO) which keeps track of the health status as well as many other related factors for all countries. The data set used in this project is related to life expectancy and aims to predict the life expectancies of various countries along with deriving and visualising the health insights for these countries. The overall job is to analyse the correlation between various data features and answer the question how these health factors impact life expectancy.

Tools & Technologies

Python Pandas Matplotlib Sciket-Learn Jupyter Notebook Other Data Science Libraries

Tasks

- Cleaning of the data collected
- A proper analysis of the available Life expectancy data
- Design an effective ML model to predict life expectancy in future
- Analyse and visualise the relationship between various key features
- Analyse and visualise the impact of the key features on life expectancy
- Help the governments identify health factors negatively impacting life expectancy
- Propose possible solutions through data visualisation

Goals Achieved

- In this data science project, the health-related data from WHO was analysed.
- Used the various data science tools to manipulate and visualize the data collected.
- An effective ML regression model using “Lasso” algorithm was designed.
- Impact of various health factors on life expectancy was evaluated.
- The model pointed out the factors that negatively impacted life expectancy and tried to suggest ways to improve it.

Outcome

- It was observed that a majority of the countries are in developing phase.
- The major health issues or low quality of health factors are mostly seen in developing countries.
- Life expectancy is developed countries is high and ranges between 70 – 90 for various countries.
- Life expectancy in developing countries is relatively low and needs more attention from WHO and governments.