Life Expectancy Predicting Model

1. Introduction

1.1. **Overview :** This 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.

1.2. **Purpose :** 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.

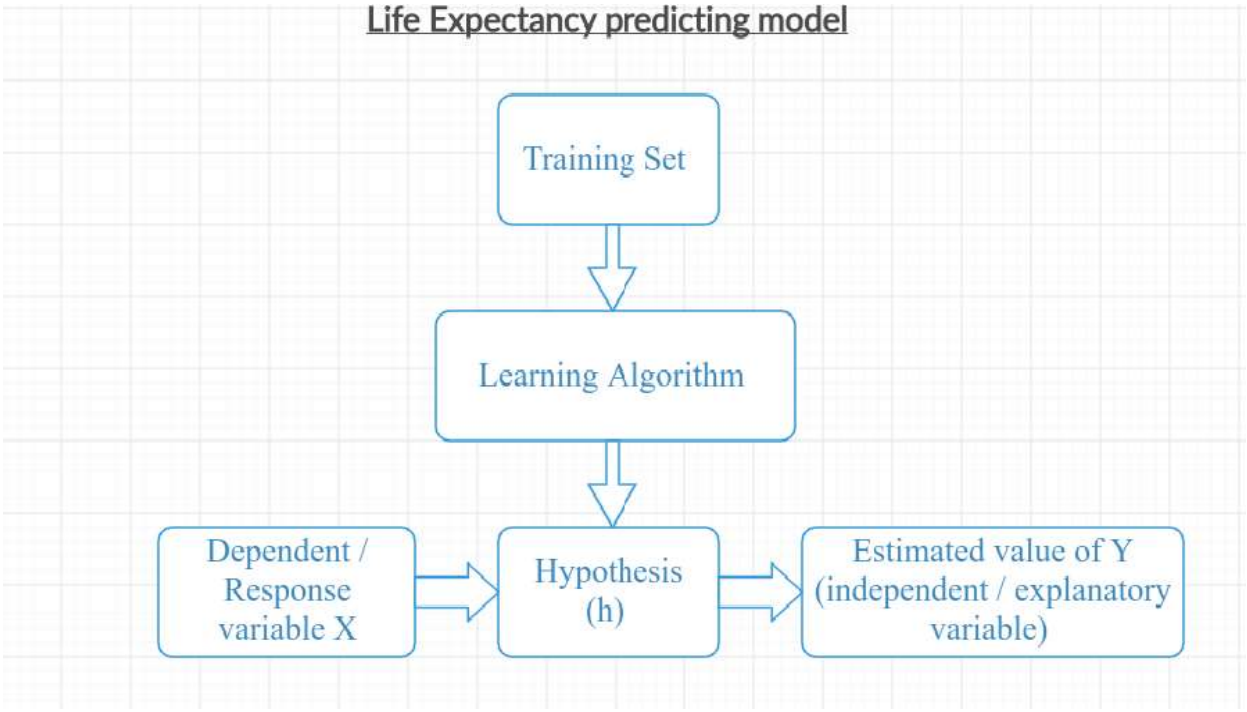
2. Literature Survey

2.1. **Existing Problem :** The problem existing is on implementation of different services and laws in a country and to minimize the death rate which can be done if we can predict life expectancy depends on what factors and how much it will be affected by any change.

2.2. **Proposed Solution:** Solution for this problem is that we can create a machine learning regression model which can predict the life expectancy of people based on different affecting factors which will help in knowing what to implement for betterment of humans.

3. Theoritical Analysis :

3.1. Block diagram :



3.2. **Software Designing :** We will be creating a web based application where we will use Node Red to create a user interface through which one can interact with our model.

4. Experimental Investigations :

4.1. We have done some investigation and found data set with different life affecting factors at trusted world health organisation web site, which we have included in our project.

5. Result : At last after training and testing the model , we got an near to accurate model which can be used for welfare of human society and increasing the life expectancy.

6. Advantages :

6.1. First advantage is that with the help of this model we can perform different factors change before actually implementing them and get its outcome.

6.2. Secondly it reduces the efforts and makes easy for one to take decision for people.

7. Disadvantages :

7.1. As our model is near to accurate not exact , so we cant be sure for a decision.

7.2. Sudden impact on human life like covid 19 types situation can impact our model a lot and our prediction becomes wrong.

8. Applications :

8.1. This can be used by companies working on products affecting human life.

8.2. This can be used by doctors to check what has affected the people most.

8.3. This can be used by the government to take decisions for human welfare.

9. Conclusion : The project we created here will serve the human society for their betterment , we have made a regression model using ml which is connected with ui by node red and will interact with user and predict average expectancy of person there.

10. Future Scope: It will be very useful in coming future and will be integrated with different other models and will perform well in all case.

11. Bibliography :

11.1. Coursera

11.2. Research Papers