

## 10 Questions an audience would ask you (Answer in Milestone 8)

- What are some of the salient features of this model?

This model is used to predict life expectancy. While this model can be routinely run to identify life expectancy which is a measure that summarizes the mortality of a country, allowing us to compare it by generation and analyze trends. Its interpretation and meaning are even richer and can provide us with key information on the level of development of a country's welfare state.

- Out of several features, what are the most significant features causing life expectancy?

Out of several features used to train this model, the following are the most significant features having a high impact on the target variable attrition.

- Schooling
- Income composition of resources
- BMI
- Polio
- Diphtheria
- GDP
- Adult Mortality
- HIV/AIDS

- Should a country having a lower life expectancy value (<65) increase its healthcare expenditure in order to improve its average lifespan?

I see if the average life expectancy of a country is less than 65, then the effect of increasing the expenditure on health shows no relation. However, if the average age is between 65 to 85, then average spending plays a tremendous part in improving life expectancy. So, yes, countries with an average life expectancy above 65 should spend more in order to improve the average lifespan.

- How do Infant and Adult mortality rates affect life expectancy?

We see that the correlation between these two and the average lifespan is negative, which means that if the infant mortality rate or the adult mortality rate rises, then the average lifespan decreases which is quite intuitive.

- Does Life Expectancy have a positive or negative correlation with eating habits, smoking, drinking alcohol, etc?

Looking at the correlation between life expectancy and various lifestyle habits like Alcohol. Alcohol which is 0.380721. So, we can say that alcohol affects life expectancy up to some extent as seen by the correlation coefficient.

- What is the impact of schooling on the lifespan of humans?

I can see that schooling has a very strong correlation with the average lifespan, with a Pearson's correlation coefficient of 0.736. This may be due to the fact that schooling teaches many things about a healthy lifestyle and even first aid, which can be life-saving in critical conditions

- Does Life Expectancy have a positive or negative relationship with BMI?

BMI is having a high correlation coefficient of 0.567361 with life expectancy. So, people should focus on improving their BMI which would subsequently improve their lifetime.

- Do densely populated countries tend to have a lower life expectancy?

The correlation coefficient of the population of a country and the life expectancy is very low ( $\sim 0.003051$ ) which basically means that if the population rises, then there is not much improvement in life expectancy. This may be due to the fact the population has a severe effect on the capacity of the health system.

- What is the impact of Immunization coverage on Life Expectancy?

All vaccinations are having a positive correlation with life expectancy. So, providing proper vaccinations like Polio, Diphtheria, and Hepatitis-B to children at the correct age improves the life expectancy of the people in the country

- Mention some of the ethical considerations considered during the course of this project?

Some of the conclusions made from this project's study could be incorrect or misrepresented due to insufficient or incorrect data. So, while sharing the outcome of this project with a larger audience, the underlying assumptions and data considerations should be shared.

- How does the income composition of resource impact life expectancy?

The income composition of resources is having a positive impact on life expectancy. People who earn more have a longer life compared to those who earn less. So, the government should focus on improving the household income for the people.