CS 306 Project Step 4

Group: Artisan

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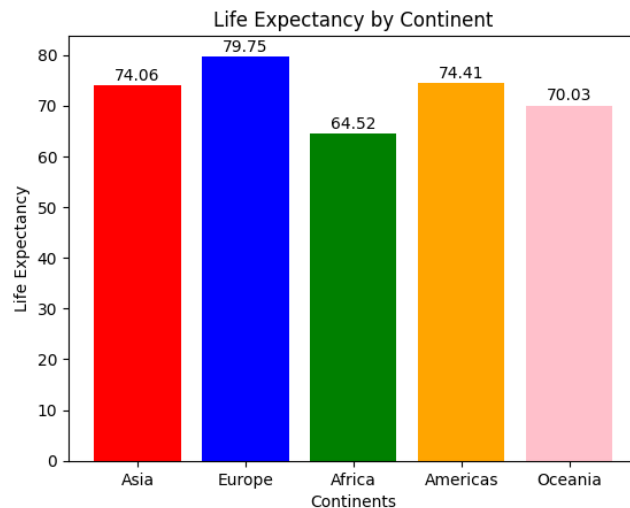
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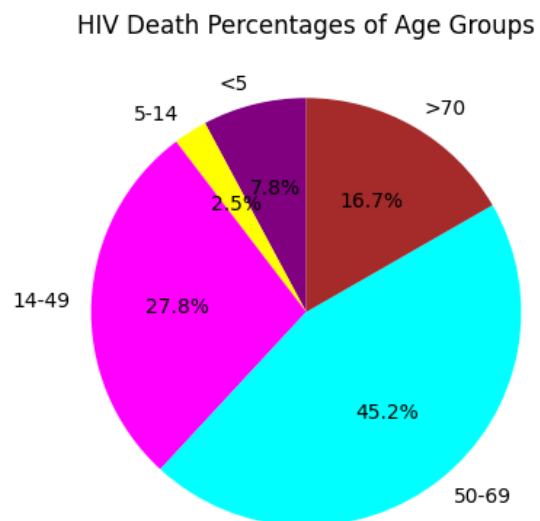**Cemal Efe Yılmaz 29293**

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1) Column Chart

In this column chart, we compared continents based on their life expectancies. We can see that Europe is leading with 79.75 life expectancy and Africa has the least life expectancy in continents with 64.52.

Life Expectancy by Continent

Continent	Life Expectancy
Asia	74.06
Europe	79.75
Africa	64.52
Americas	74.41
Oceania	70.03

2) Pie Chart

This is a pie chart that shows the HIV Death percentages of certain age groups. We can see that the bigger part of the chart is people who are between the ages of 50-69. As a second observation, we can say that as age gets bigger, the possibility of dying because of HIV is getting bigger too.

HIV Death Percentages of Age Groups

Age Group	Percentage
<5	7.8%
5-14	2.5%
14-49	27.8%
50-69	45.2%
>70	16.7%

3) Pivot Table

This is a pivot table that shows the total deaths and average deaths per country that each type of disease caused. As it is also seen in the table, the disease which causes the most deaths is cardiovascular problems.

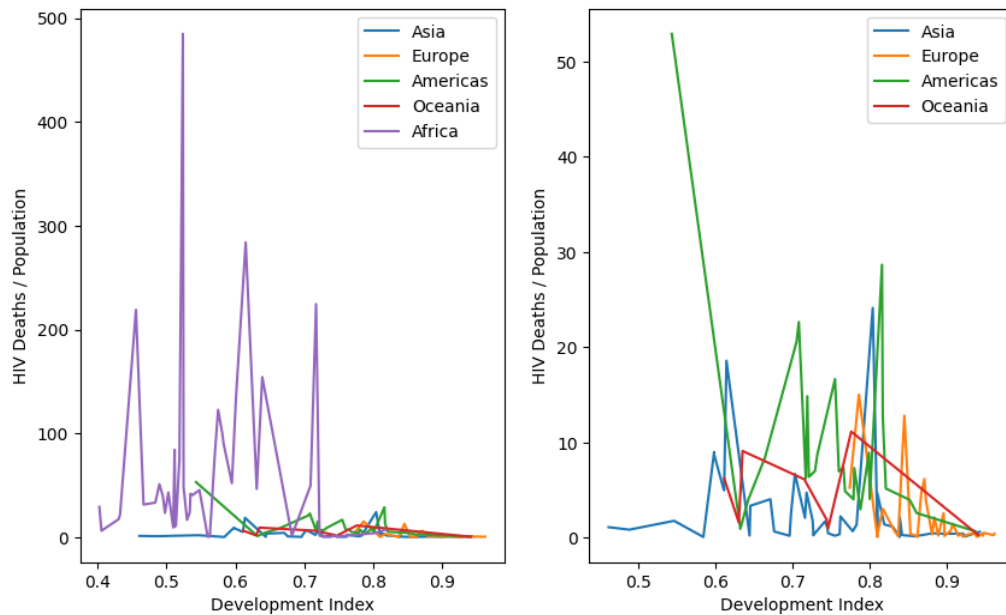|	Disease Type	Average Deaths per Country	Total Deaths
0	meningitis	2809.1456	236222
1	HIV/AIDS	9634.3038	863837
2	Tuberculosis	14105.8101	1179766
3	cardiovascular	223185.0380	18562510

4) Scatter Map

This is a scatter map that shows the relationship between development index and life expectancy. Each dot in this graph represents a country. We can see that when a country's development index increases, life expectancy tends to increase too. According to this observation, we can see a high correlation between these two variables.
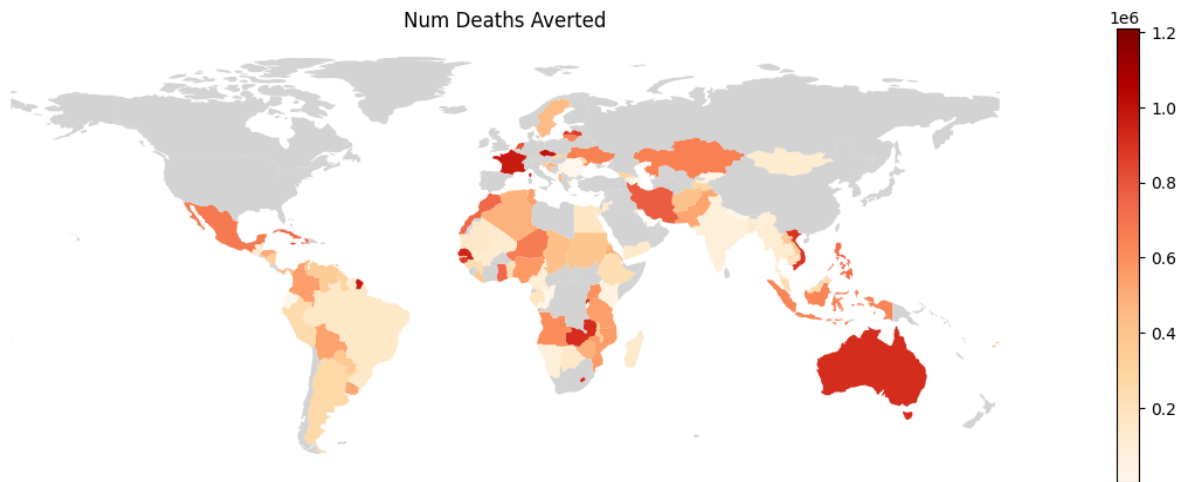

Development Index vs Life Expectancy

5) Line Chart

This is a line chart demonstrating the countries with their (HIV deaths / population) ratio and development indexes. To make the numbers look better the ratio is multiplied by 1e6. The countries are grouped according to their continents so that each line represents a continent. As it is seen, Africa has the most HIV death ratio and also development index. Because of Africa, when we displayed all continents in a single graph, it became harder to see and analyze other countries. For this purpose, we decided to plot other continents in a different line chart.

6) Area Map

This area map shows each country's number of HIV deaths averted with ART treatment. Color getting bolder indicates that the number of deaths averted increases for a country. Moreover, countries which are gray means that there is no information about this variable in our database. We can clearly see that one of the countries that has higher number of deaths averted with ART treatment is France.

Num Deaths Averted

Github Repo Link: https://github.com/bkabadayii/CS306-Project-Artisan