COVID-19 VACCINES ANALYSIS

Phase – 2: INNOVATION

211521244060
YOGESH J

Phase - 2 Documentation Submission

Contents

INTRODUCTION

This document explores innovative approaches to conduct a foundational analysis of a Covid-19 dataset. The aim is to provide beginner-friendly strategies in data preprocessing, exploratory data analysis (EDA), and data visualization.

DESIGN THINKING AND INNOVATION

Problem Framing:

Analyzing Covid-19 data effectively is vital for informed decision-making and public health strategies. The challenge lies in making this analysis accessible and insightful, especially for individuals new to data analysis.

DESIGN OBJECTIVES:

Efficient Data Pre-processing:

Develop automated techniques to handle missing data and optimize the dataset for analysis.

Insightful Exploratory Data Analysis (EDA):

Utilize simplified EDA with visualization and summary statistics to grasp the dataset's characteristics.

Interactive Data Visualization:

Implement interactive visualizations to present critical Covid-19 statistics in an engaging and informative manner.

INNOVATING THE APPROACH

1. Automated Data Pre-processing:

Innovation: Utilizing automated data pre-processing techniques.

Approach: Automated imputation of missing values and data cleaning to ensure data readiness for analysis.

2. Insightful Exploratory Data Analysis (EDA):

Innovation: Simplified yet effective EDA with visualization.

Approach: Employing basic visualization techniques to better understand the age distribution and other relevant aspects of the dataset.

3. Interactive Data Visualization:

Innovation: Enhancing data visualization for engagement.

Approach: Creating interactive and visually appealing charts to present Covid-19 cases by country, making the data more accessible and engaging.

4. Time Series Analysis:

Innovation: Leveraging time series analysis for temporal insights.

Approach: Analyzing the dataset over time to identify trends, seasonality, or unusual patterns in the spread of Covid-19.

5. Clustering for Insights:

Innovation: Utilizing clustering to uncover patterns and group similar data points.

Approach: Applying clustering algorithms to group regions or countries based on Covid-19 spread characteristics, aiding in targeted interventions and resource allocation.

CONCLUSION

By incorporating these innovative approaches, we can do the analysis on the given covid-19 dataset. These techniques are the basic approaches to analyse a given dataset.
We conclude this phase by giving this innovative approach to our problem statement based on the Design thinking I provided earlier.

I am sure that these innovative approaches will prove to be useful for our analysis.