Information Visualization

Project Description

Project Title: Global Dataset Explorer

Objective:

Create an interactive dashboard using ggplot2 for static visualizations and shiny for interactivity to explore and analyze global dataset. You'll use real-time or historical data, which you can source from reliable repositories like Johns Hopkins University's GitHub repository.

1. **Data Retrieval and Preprocessing:**
   - Search for a real dataset with min 8 attributes.
   - Describe the dataset and it's attributes and use suitable statistics for your data and discuss it.
   - Preprocess the data to clean, filter, and format it for visualization.
2. **Static Visualizations with ggplot2:**
   - Implement various static visualizations:
     - Apply 7 different data visualization **interactive** charts.
     - Charts must be presented in a dashboard.
3. **Interactive Shiny Dashboard:**
   - Design an interactive dashboard allowing users to customize their analysis:

     - Dropdown menus for selecting specific category.
     - Checkboxes to choose between different categories for comparison.
     - Date range selectors for focusing on specific time periods.
     - Add checkboxes to dynamically show/hide different visualizations.
     - Include radio buttons for users to choose between daily and cumulative data.

- Implement tooltips or hover effects for detailed information in the visualizations.

4. Dynamic Filters:
- Implement dynamic filters to enable users to explore the data further:
  - Allow users to switch between different units (e.g., percentage change, absolute values).
  - Allow users to filter data based on specific criteria.

5. User-Friendly Design:
- Focus on a clean and user-friendly interface:
  - Implement a dark/light mode toggle for the dashboard.
  - Include clear and concise tooltips or help sections for each visualization (e.g., your observation about each visualization).
  - Provide clear instructions on how to use the dashboard effectively.

Project Deliverables

1.Dataset

2.code {R script}

3.Documentation