Titanic Interactive Dashboard

This project presents an **interactive dashboard** built with **HTML, JavaScript, and Plotly.js** to visualize and analyze data from the Titanic dataset. The dashboard allows users to upload a JSON file containing Titanic data and dynamically generates insightful visualizations. It also incorporates a **gender-based slicer** to filter the data, enhancing interactivity and usability.

Features

1. **Dynamic File Upload:**
    - Users can upload a local JSON file containing Titanic dataset information.
    - The dashboard dynamically updates the visualizations based on the uploaded data.
2. **Interactive Slicer:**
    - A dropdown slicer enables filtering by gender (All, Male, Female), providing focused analysis.
3. **Key Data Visualizations:**
    - **Survival Rate by Passenger Class:** Bar chart showing survival percentage across different ticket classes.
    - **Age Distribution by Survival Status:** Overlaid histogram comparing age distributions of survivors and non-survivors.
    - **Survival Rate by Gender:** Bar chart visualizing gender-specific survival rates.
    - **Survival Rate by Embarkation Point:** Bar chart showing survival percentages based on embarkation towns.
    - **Fare Distribution:** Histogram illustrating fare distribution among passengers.
4. **Glassmorphism Design:**
    - Styled using modern **glassmorphism** principles, providing a sleek, frosted glass effect with icy blue tones.
    - Responsive layout optimized for seamless usability.
5. **Exportable Code:**
    - The dashboard is provided as a standalone **HTML file** for easy sharing and deployment.

Technologies Used

- **HTML5** for structure and content rendering.
- **JavaScript** for interactivity and data processing.
- **Plotly.js** (v2.26.2) for creating dynamic and responsive visualizations.
- **CSS3** for modern styling with glassmorphism effects.

How to Use

1. Clone or download the project files.
2. Open the HTML file in a modern web browser.
3. Upload a valid Titanic dataset in JSON format to explore the dashboard.
4. Use the gender slicer to filter the data dynamically.

Use Cases

- Exploratory data analysis for historical datasets.
- Demonstrating proficiency in interactive dashboards and visualizations.
- Showcasing modern UI/UX design techniques in web development.