Frontend Developer - Assignment

(Analytics Dashboard)

Objective:

Create a responsive and interactive dashboard that visualises data from a fictional e-commerce platform. The goal is to showcase your skills in data visualisation, interactivity, and responsiveness.

Requirements:

Data Visualization:

- Generate or use mock data to represent e-commerce metrics (e.g., sales, revenue, user activity).
- Utilise a charting library (such as Chart.js, D3.js, or Recharts) to create visually appealing charts and graphs.
- Display at least three different types of charts (e.g., line chart, bar chart, pie chart) to represent various aspects of the data.

Responsive Design:

- Ensure that the dashboard is fully responsive and looks good on different screen sizes, including desktop, tablet, and mobile.
- Implement a mobile-first design approach.

Interactivity:

- Make the dashboard interactive by allowing users to interact with the charts (e.g., hover effects, click events).
- Implement filters or controls that enable users to customise the data displayed on the dashboard dynamically.

Data Fetching:

- Simulate fetching data from an API asynchronously (you can use a library like Axios or fetch).
- Handle loading states and errors gracefully.

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Component Architecture:

- Design a modular component architecture for the dashboard elements.
- Separate concerns by creating reusable and well-organised components.

State Management:

- Utilise state management (such as React Context API, Redux, or Recoil) to manage the state of the dashboard and handle data flow efficiently.

Animations:

- Incorporate subtle animations to enhance the user experience (e.g., transitions between charts, data updates).

Testing:

- Write unit tests for critical components and functions using a testing library of your choice (e.g., Jest, React Testing Library).

Documentation:

- Provide clear documentation on how to run the project locally.
- Include explanations of the data visualisation choices, design decisions, and any libraries used.

Git Version Control:

- Initialise a Git repository for version control.
- Commit changes regularly with meaningful messages.

Evaluation Criteria:

- Creativity in data visualisation.
- Responsiveness and usability of the dashboard.
- Clean and modular component design.
- Effective use of interactivity to enhance user experience.
- Proper error handling and loading states.
- Implementation of state management.

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- Testing coverage and accuracy.
- Git version control and commit history.

Keep in mind that the goal of this project is to evaluate your skills. We understand that you may not have extensive experience in this area, so feel free to showcase your understanding at a level that aligns with your expertise.

Timeframe: 72 hours

Best of luck with the project! We look forward to seeing your implementation.