

Assignment: Data Visualization and Table Manipulation using Coinlore API

Deadline: 3 days

Objective: Create a web application using ReactJS/NextJS that fetches data from the Coinlore API (<a href="https://api.coinlore.net/api/tickers/">https://api.coinlore.net/api/tickers/</a>) and displays it in a table. The table should have sorting and search functionality, allowing users to easily find and analyze cryptocurrency data.

## Instructions:

- 1. Set up the project:
  - Use ReactJS/NextJS to create the web application.
  - Set up the necessary dependencies and project structure.
  - o Create the required components for the table, search, and sorting.
  - Follow proper file structure and DRY (Don't repeat yourself) principle.
- 2. Fetch data from Coinlore API:
  - Use the Coinlore API endpoint "<a href="https://api.coinlore.net/api/tickers/">https://api.coinlore.net/api/tickers/</a>" to retrieve the cryptocurrency data.
  - Make an API call to fetch the data in JSON format.
  - o Handle any errors that may occur during the API call.
- 3. Create a table for displaying the data:
  - Design and implement a table component using the provided Figma file (<a href="https://www.figma.com/file/QY8xa5V6Uo3CIRtQ90JV5H/Tables-(Community)?type=design&node-id=1%3A60&t=UsltFXTxfZus0WzD-1">https://www.figma.com/file/QY8xa5V6Uo3CIRtQ90JV5H/Tables-(Community)?type=design&node-id=1%3A60&t=UsltFXTxfZus0WzD-1</a>).
  - Display the fetched data in the table.
  - Include columns for the following fields:
    - ID
    - Name
    - Rank
    - Price (USD)
    - Percent Change (24h)
    - Price (BTC)
    - Market Cap (USD)
  - Implement sorting functionality for each column, allowing users to sort the table data in ascending or descending order by clicking on the column headers.
  - Highlight the currently sorted column and display an arrow indicating the sort order.
- 4. Implement search functionality:
  - Add a search input field above the table.



- Allow users to enter a search query and filter the table data based on the entered text.
- Filter the data by comparing the search query against the "Name" and "ID" fields.
- Update the table in real-time as the user types in the search query.

## 5. Style and Design:

- Use the provided Figma file
  (<a href="https://www.figma.com/file/QY8xa5V6Uo3CIRtQ90JV5H/Tables-(Community)?ty">https://www.figma.com/file/QY8xa5V6Uo3CIRtQ90JV5H/Tables-(Community)?ty</a>
  pe=design&node-id=1%3A60&t=UsItFXTxfZus0WzD-1) as a reference for the table's design.
- Implement the table and components using CSS or a CSS framework of your choice.
- Ensure the application is responsive and displays properly on different devices and screen sizes.

## **Submission Guidelines:**

- Push your project to a GitHub repository.
- Host the web app on free services like Vercel or Netlify
- Share the GitHub repository link and Live Website Link with us before the deadline.

Note: Remember to manage your time effectively and prioritize the required tasks to complete the assignment within the given deadline. Good luck!

## Optional: Additional features (if time permits):

- Implement pagination for the table, allowing users to navigate through multiple pages of data.
- Add buttons or dropdowns for filtering the data based on specific criteria (e.g., rank, price, percent change).
- Include additional visualizations, such as charts or graphs, to provide a more comprehensive view of the data.