

# CODING EXERCISE

## OBJECTIVE

Develop a React-based application to showcase your expertise in creating user interfaces, with a focus on cloud operations. This task should demonstrate your aesthetic sense, attention to detail, and advanced coding skills.

## ASSIGNMENT

Construct a dashboard for monitoring cloud resources. This dashboard will display mock data relevant to cloud operations, such as server status, resource usage, and alert notifications.

## REQUIREMENTS

### 1. Dashboard Design:

- Develop a responsive layout for various screen sizes.
- Design a clean, modern user interface with an emphasis on usability.
- Incorporate interactive elements like dropdowns, modals, and tooltips.

### 2. Data Visualization:

- Implement various charts (e.g., bar, line, pie charts) to represent mock metrics like CPU usage, memory consumption.
- Optional animations or transitions to enhance data presentation.

### 3. Interactive Features:

- Build a mock real-time notification system for simulated alerts (e.g., server overload, downtime).
- Implement a search functionality to filter resources based on criteria like status, name, account, region, etc.

#### 4. **Aesthetic Touch:**

- Demonstrate your design skills with an effective color scheme, typography, and layout composition.
- Balance visual appeal with functionality.

#### **Mock Real-Time Notifications**

- Simulate real-time notifications within the React application.
- Generate periodic or random notifications that mimic real-time alerts for typical cloud operation scenarios.
- Include functionality to interact with (e.g., dismiss) these notifications.

### DELIVERABLES

- Source code hosted on a public Git repository (e.g., GitHub).
- A README file containing:
  - Instructions for running the application.
  - A brief description of your design and technical choices.
- **Optional:** A live demo of the application hosted on a platform like Netlify or Vercel.

### EVALUATION CRITERIA

- **Code Quality:** Clean, modular, and well-documented.
- **Design Aesthetics:** Visual appeal and user experience.
- **Functionality:** Effective implementation of the core features.
- **Creativity:** Innovation in design and implementation.

### TIME FRAME

You have 4 days to complete this assignment. Please inform us if you require additional time due to specific circumstances.