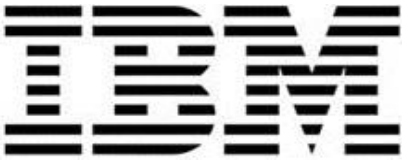

COLLEGE CODE: 8203

COLLEGE NAME : A.V.C. College of Engineering

DEPARTMENT: CSE

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ROLL NO: 23CS67

DATE: 03-10-2025

Completed the project named as

Phase: 04

TECHNOLOGY PROJECT NAME: ADMIN DASHBOARD WITH CHARTS

SUBMITTED BY,

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Phase 4: Enhancements & Deployment

1. Additional Features

- Implementing further metrics computation in the backend (e.g., specific user segments, deep sales analytics, traffic source tracking).
- Adding new types of charts or more detailed views to the dashboard.
- Introducing drill-down capabilities in the charts.

2.UI/UX Improvements

- Refining the visual design and layout of the dashboard for better readability.
- Improving the responsiveness of the charts and overall dashboard on different screen sizes.
- Enhancing chart tooltips, legends, and interactive elements.

3. API Enhancements

- Optimizing API endpoints for faster data retrieval (for auto-update).
- Implementing robust error handling for API calls.
- Refining the JSON data structure for efficiency and clarity.

4. Performance & Security Checks

- Performance: Optimizing backend query performance (MongoDB) and reducing frontend load times (Chart.js rendering).
- Security: Rigorously testing the Role-based access to ensure data visibility restrictions are correctly applied and secure.
- Implementing input validation and sanitization for any user inputs related to the dashboard.
- Adding or verifying HTTPS/SSL configuration.

5.Testing of Enhancements

- Comprehensive testing of all new features, UI/UX improvements, and API enhancements.
- Regression testing to ensure existing functionality (backend computation, JSON data transfer, basic Chart.js display) is not broken.
- Testing the Charts auto-update functionality under various load conditions.

6. Deployment

- Preparing the application (Node.js/Express backend, frontend with Chart.js) for the chosen deployment platform.
- Setting up environment variables and configuration for production.
- Final deployment and smoke testing on the live platform.