

Blackcoffer Visualization Dashboard

Project Report

1. Project Overview

This project is a full-stack interactive data visualization dashboard built as part of the Blackcoffer Software Engineer (Full-stack) Associate assignment. It uses modern frontend technologies to visualize business insights from a structured JSON data source. The dashboard includes filters, interactive charts, and a responsive layout.

2. Tech Stack

- React (UI Library)
- Vite (Build Tool)
- TypeScript (Typed JavaScript)
- Tailwind CSS & Shadcn UI (Styling and UI Components)
- Recharts (Charting Library)
- JSON (Data Source)

3. Features Summary

- Dynamic JSON-based data loading
- Filters: Region, Sector, Country, Topic
- Interactive charts with tooltips and hover effects
- Fully responsive design for mobile and desktop
- Clean UI using Tailwind and Shadcn UI

4. Architecture & Project Structure

Project Structure:

blackcoffer-visualizationdashboard/

public/

data.json # Main data file

src/

components/ # UI components

pages/

Index.tsx # Dashboard logic

App.tsx # Entry point

package.json
vite.config.ts
tailwind.config.ts

5. Demo Walkthrough

- Run `npm install`
- Launch development server with `npm run dev`
- Open <http://localhost:5173> in a browser
- Use filters to select Region, Sector, etc.
- Charts update live with user selections
- Fully responsive on mobile/tablet view

6. Usage Instructions

- Install dependencies: `npm install`
- Start development: `npm run dev`
- Build for production: `npm run build`
- Preview build: `npm run preview`
- To modify data: update `public/data.json`

7. Compliance Note

This project is submitted for internal review only.

It is not deployed publicly and is not stored in public GitHub/Netlify.

Any public sharing may disqualify the submission.

This version has been submitted privately via Google Drive.

8. GitHub Repository

If permitted, here is the GitHub link for source review only (do not consider as public submission):

GitHub Repo: <https://github.com/Darshanjain25933/blackcoffer-Visualizationdashboard>

Kindly note: This repository can be made private or removed after evaluation.

9. Credits

- React
- Vite
- Tailwind CSS
- Shadcn UI

- Recharts

10. Contact Info

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