




AI-Native KRA – DevOps Assignment 2 (CI/CD Pipeline Health Dashboard)

You Tube Course - <https://www.youtube.com/watch?v=XnC6cF1v5OY>

Build a **CI/CD Pipeline Health Dashboard** to monitor executions from tools like **GitHub Actions** or **Jenkins**.

The dashboard should:

- Collect data on pipeline executions (success/failure, build time, status).
- Show real-time metrics:
 -  Success/Failure rate
 -  Average build time
 -  Last build status
- Send alerts (via **Email**) on pipeline failures.
- Provide a **simple frontend UI** to:
 - Visualize pipeline metrics
 - Display logs/status of latest builds

This should simulate how modern engineering teams monitor the health of their CI/CD systems using automation, observability, and actionable alerting.

Expected Outcome

The candidate is expected to use **GitHub Copilot** or **Cursor IDE** + GPT-4 for ideation, design, and development assistance.

Deliverables

1. Instructions/Prompts

- Public links or text logs of prompts used with **Copilot**, **Cursor**, or **ChatGPT**.

2. Requirement Analysis Document

- Use GPT/CoPilot/Cursor to analyze/expand the requirement.
- Present understanding in terms of:
 - Key features
 - Tech choices
 - APIs/tools required

3. Tech Design Document

- High-level architecture
- API structure (routes, sample response)
- DB schema
- UI layout (explanation)

4. Source Code Repository

- Complete source code hosted on GitHub (public or share access)
- Should include:
 - Backend (Node.js/Python etc.)
 - Frontend (React/Vue or any)
 - DB (SQLite/PostgreSQL /)
 - Alerting service integration

5. Deployment

- Containerize the app (Docker)

6. Documentation

- **README.md** containing:

- Setup & run instructions
- Architecture summary
- How AI tools were used (with prompt examples)
- Key learning and assumptions



Submission Items

- **GitHub Repository** with complete source code, need to update the Link for repo in below excel.
- **Prompt Logs, Requirement Analysis Document, Tech Design Document, README.md** All needs to uploaded in repo itself with following name (txt , md, docx)
 - prompt_logs.md / prompt_logs.txt
 - Requirement_analysis_document.md / requirement_analysis_document.docx
 - tech_design_document.md / tech_design_document.docx
 - Readme.md