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 **Slack** or **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)
  + prompot\_logs.md / prompot\_logs.txt
  + Requirement\_analysis\_document.md / requirment\_analysis\_document.docx
  + tech\_design\_document.md / tech\_design\_document.docx
  + Readme.md