Documentation - Seaker-Alert-App

Dockerized system monitoring and alerting application that collects and visualizes system metrics using Python, InfluxDB, Grafana and supports real-time dashboards

➔ Features

- Collects real-time system metrics:
  - CPU usage (%)
  - RAM usage (GB)
  - Disk usage (GB)
  - Uptime (hours)
- Stores metrics in InfluxDB
- Visualizes metrics using Grafana
- Dockerized for ease of deployment

➔ Tech Stack

Libraries and their Purpose
Python + psutil -System metrics collection
InfluxDB -Time-series data storage
Grafana - Dashboard and alerts
Docker- Containerized environment

➔ Setup Instructions

1. Clone the Repository

git clone https://github.com/yourusername/Seaker-Alert-App.git
cd Seaker-Alert-App

2. Run the App Using Docker

docker-compose up --build

3. Ports

Start InfluxDB at port `8086`
Start Grafana at port `3000`

4. Grafana Configuration

Open: http://localhost:3000
Login: admin/admin

5. InfluxDB Configuration

Settings > Data Sources
Click Add Data Source
Choose InfluxDB
Configure:
URL: http://influxdb:8086
Database: metrics
Query Language: InfluxQL
Click Save & Test

6.Dashboard Configuration

For each panel: Click - Dashboard - Add Panel
Select the InfluxDB data source

Use queries: for CPU usage

Data source - InfluxDB

From - select system matrix - where - cpu percentage

Select field - cpu percentage

Choose visualization: Gauge
Apply and repeat for all metrics
Click Save the dashboard

7. Alert system

In a panel → Click Alerts → Create Alert
Set condition if CPU > 80%
Add a notification channel (Telegram)
Save the rule