FinOps Free Tier Starter Project Report

Abstract: This project demonstrates the setup of a cost monitoring and visualization system for cloud resources using a FinOps approach. The solution leverages AWS cost data, SQLite as the database, and Grafana for visualization, enabling better financial governance in cloud usage.

Introduction: Cloud computing offers flexibility but can lead to unexpected costs. FinOps practices help organizations gain visibility and control over expenses. This project implements a monitoring system to track AWS Free Tier usage and present the data visually.

Tools Used:
- Python (for data fetching and processing)
- SQLite (lightweight database to store cost data)
- Grafana (for visualization and dashboards)
- AWS (as the cloud provider and data source)

Steps Involved in Building the Project:
1. Set up a Python virtual environment and install dependencies.
2. Fetched AWS Free Tier usage and cost data into SQLite.
3. Verified database tables and populated them with cost data.
4. Configured Grafana with SQLite as a data source.
5. Built dashboards in Grafana to visualize cost and usage trends.
6. Added panel editor queries and set up alerts for threshold breaches.

Conclusion: The project successfully implemented a basic FinOps cost monitoring system. Using Python, SQLite, and Grafana, it enabled visualization of AWS Free Tier usage and cost patterns. This approach helps improve financial awareness and ensures cost optimization for cloud environments.