**Task 2 Report**

**Report on Cloud-Based Application Monitoring Setup Using AWS Cloud**

**1. Introduction**

This report outlines the setup of monitoring for a cloud-based application using AWS Cloud services. The primary objective was to configure alerts and dashboards to track critical application metrics and alarms.

**2. Tasks Completed**

**1. Configured AWS CloudWatch for Monitoring:**

o Set up CloudWatch Metrics to collect data on application performance, system health, and resource utilization.

o Defined custom metrics for application-specific parameters.

**2. Implemented CloudWatch Alarms:**

o Created alarms to monitor key performance indicators (KPIs) such as CPU usage, memory utilization, request latency, and error rates.

o Configured notifications using Amazon SNS (Simple Notification Service) to send alerts via email/SMS when thresholds are breached.

**3. Developed a CloudWatch Dashboard:**

o Designed a centralized dashboard displaying real-time metrics, alarms, and logs for easy monitoring.

o Included visualizations like line charts and graphs to analyze trends.

**4. Ensured Logging and Event Handling:**

o Configured CloudWatch Logs to capture application and system logs.

o Set up event rules for automated responses to specific system changes.

3. Deliverables

• Configured Alerts & Alarms: Real-time notifications for performance anomalies.

• Monitoring Dashboard: Visual representation of key metrics and alarms.

**4. Conclusion**

The AWS monitoring setup successfully enhances visibility into the application's health, providing proactive alerting and detailed insights. This ensures timely responses to issues, improving system reliability and operational efficiency