Grafana Prometheus Monitoring for ERP Systems Training Course

Professional Development Training Course Outline

Category	Enterprise Resource Planning (ERP)	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Grafana and Prometheus are two of the most powerful and widely used open-source tools for monitoring and observability in modern IT infrastructures. As enterprises increasingly adopt ERP systems to streamline business processes, ensuring the health and performance of these critical applications becomes essential. Grafana Prometheus Monitoring for ERP Systems Training Course will equip you with the knowledge and hands-on experience needed to integrate Grafana and Prometheus with ERP systems, enabling proactive monitoring, troubleshooting, and performance optimization. By leveraging these tools, businesses can gain deep insights into their ERP system's performance metrics, allowing for more informed decision-making and enhanced operational efficiency.

In this comprehensive course, we will dive deep into the core functionalities of Grafana and Prometheus, exploring how they can be used to monitor critical ERP components such as databases, application servers, and networks. Participants will learn to set up, configure, and customize monitoring dashboards in Grafana, as well as how to collect and store time-series data with Prometheus. By the end of the course, you will have the skills to design and deploy an effective monitoring solution tailored to your ERP system, ensuring maximum uptime and performance.

Programme Curriculum

Grafana Prometheus Monitoring for ERP Systems Training Course

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Course Objectives

1. Understand Grafana and Prometheus architecture and how they integrate with ERP systems.
2. Install and configure Prometheus for time-series data collection from ERP applications.
3. Set up Grafana dashboards to visualize ERP system health and performance metrics.
4. Configure alerts and notifications for performance thresholds and system anomalies in Grafana and Prometheus.
5. Explore Prometheus metrics for key ERP system components such as databases, servers, and network interfaces.
6. Leverage Grafana's advanced visualization features to track system uptime, response time, and user interactions.
7. Optimize ERP system performance by analyzing and responding to monitored data insights.
8. Create custom metrics to monitor ERP-specific KPIs like transaction volumes, user activity, and error rates.
9. Implement Grafana security best practices to protect sensitive monitoring data.
10. Troubleshoot ERP system performance with Grafana and Prometheus' root-cause analysis capabilities.
11. Automate ERP system performance monitoring using Prometheus' scraping and alerting features.
12. Integrate third-party plugins and data sources into Grafana for expanded ERP monitoring.
13. Establish ongoing monitoring and maintenance protocols to ensure continuous visibility into ERP system performance.

Target Audience

1. ERP Administrators.
2. DevOps Engineers.
3. IT Operations Managers.
4. System Architects.
5. Database Administrators.
6. Software Engineers.
7. Business Intelligence Analysts.
8. Consultants.

Course Modules

Module 1: Introduction to Grafana and Prometheus

- Overview of monitoring and observability principles.
- Key differences between Prometheus and traditional monitoring tools.
- Basic architecture and components of Prometheus and Grafana.
- Integrating Prometheus with ERP systems.
- Case Study: Grafana’s role in visualizing time-series data.

Module 2: Setting Up Prometheus for ERP Monitoring

- Installing Prometheus on various environments.
- Configuring Prometheus for scraping ERP system metrics.
- Case Study: Best practices for Prometheus performance and scalability.
- Setting up Prometheus for high availability.
- Introduction to Prometheus query language.

Module 3: Grafana Dashboard Fundamentals

- Creating and customizing Grafana dashboards.
- Connecting Grafana to Prometheus as a data source.
- Visualizing ERP system metrics.
- Using Grafana panels and variables to create dynamic dashboards.
- Case Study: Building an ERP system health dashboard.

Module 4: Alerting and Notifications

- Setting up alerting rules in Prometheus.
- Configuring Grafana alerting for ERP systems.
- Using webhooks and email notifications.
- Case Study: Configuring a real-time alerting system for ERP performance issues.
- Best practices for alert threshold configuration.

Module 5: Advanced Grafana Features

- Using plugins and third-party integrations in Grafana.
- Grafana templating and variables for dynamic dashboards.
- Embedding Grafana visualizations in external tools.
- Optimizing Grafana for large-scale data visualization.
- Case Study: Customizing Grafana for a global ERP deployment.

Module 6: Performance Metrics for ERP Systems

- Understanding key performance indicators (KPIs) for ERP systems.
- Collecting and analyzing ERP application performance data.
- Measuring database query times and resource utilization.
- Monitoring server and network health for ERP systems.
- Case Study: Tracking ERP transaction volumes and user behavior.

Module 7: Prometheus Querying and Data Analysis

- Writing and optimizing PromQL queries for ERP system metrics.
- Using time-series data for long-term trend analysis.

- Data aggregation and filtering techniques.
- Creating custom metrics for ERP systems.
- Case Study: Analyzing ERP system downtime using PromQL.

Module 8: ERP System Troubleshooting

- Leveraging Grafana and Prometheus to pinpoint ERP performance bottlenecks.
- Using logs and error tracking alongside performance data.
- Case Study: Troubleshooting ERP system failures with monitoring tools.
- Root-cause analysis techniques using Grafana.
- Integrating additional logging tools into your monitoring stack.

Module 9: Scaling and Managing Monitoring Infrastructure

- Scaling Prometheus for large ERP environments.
- Horizontal and vertical scaling strategies for Grafana.
- Distributed monitoring setups for ERP systems.
- Using Prometheus Federation for multi-cluster monitoring.
- Case Study: Scaling monitoring for a multinational ERP system.

Module 10: Securing Your Monitoring Setup

- Implementing secure access controls in Grafana and Prometheus.
- Using SSL/TLS for secure data transfer.
- Grafana user roles and permissions management.
- Securing Prometheus data storage.
- Case Study: Configuring a secure Grafana monitoring environment for sensitive ERP data.

Module 11: Automating Monitoring and Reporting

- Automating Prometheus scraping intervals.
- Using Grafana for scheduled reporting and performance snapshots.
- Automating alert responses with Grafana and Prometheus.
- Integrating monitoring with CI/CD pipelines.
- Case Study: Automating ERP system health checks after system updates.

Module 12: ERP Customization and Integration

- Developing custom plugins and dashboards for ERP systems.
- Integrating Grafana and Prometheus with third-party tools.
- Advanced data transformation and visualization for ERP metrics.
- Using Grafana’s API to create custom monitoring solutions.
- Case Study: Customizing ERP system dashboards for executive teams.

Module 13: Optimizing ERP System Performance

- Identifying and mitigating performance issues using Grafana and Prometheus.
- Optimizing database query performance based on monitoring data.
- Tuning server and application performance with data insights.
- Case Study: Fine-tuning ERP system response times based on real-time monitoring.
- Using Prometheus metrics to predict future system resource needs.

Module 14: Managing Alerts and Incident Response

- Best practices for alert severity and escalation.
- Integrating Grafana with incident management tools like PagerDuty and Opsgenie.
- Case Study: Handling ERP downtime through integrated monitoring and alert systems.
- Setting up automated remediation for known ERP issues.
- Creating a response plan for critical ERP system performance failures.

Module 15: Real-World Case Studies and Use Cases

- Review of successful Grafana and Prometheus implementations for ERP systems.
- Common pitfalls and how to avoid them in ERP monitoring.
- Tailoring monitoring solutions for different types of ERP systems (SAP, Oracle, etc.).
- Case Study: Monitoring a large-scale ERP system with Grafana and Prometheus.
- Discussing industry-specific monitoring requirements (e.g., finance, manufacturing).

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call +254769199797

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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