Grafana Administration

Module 1: Introduction to Grafana and Observability Concepts

1. Introduction to Observability and Monitoring
2. Grafana Overview and Core Capabilities
3. Grafana Architecture and Components
4. Open-source vs. Enterprise Editions
5. Use Cases Across Industries and Teams

Module 2: Installing and Configuring Grafana

1. System Requirements and Deployment Options
2. Installing Grafana on Linux, Windows, and Docker
3. Configuration Files and Environment Variables
4. Grafana CLI and Admin Commands
5. Setting Up Authentication and Initial Security Settings

Module 3: User Management and Access Control

1. Creating and Managing Users
2. Role-Based Access Control (RBAC)
3. Organization and Team Structures
4. User Permissions for Dashboards and Data Sources
5. LDAP and OAuth Integrations

Module 4: Integrating and Managing Data Sources

1. Supported Data Sources Overview (e.g., Prometheus, InfluxDB, MySQL, Elasticsearch)
2. Adding and Configuring Data Sources
3. Query Editors and Query Language Basics
4. Secure Credentials and Data Source Management
5. Templating and Variable Use in Queries

Module 5: Dashboard Design and Visualization Techniques

1. Creating Dashboards and Panels
2. Using Graphs, Tables, and Visualization Widgets
3. Working with Time Ranges and Auto-Refresh
4. Reusable Dashboard Variables and Templates
5. Best Practices for Visual Clarity and Usability

Module 6: Alerting and Notification Configuration

1. Alerting Architecture and Concepts
2. Creating Alert Rules and Conditions
3. Setting Notification Channels (Email, Slack, Webhooks, etc.)
4. Alert Grouping, Throttling, and Silence Rules
5. Alerting in Grafana Cloud and Enterprise

Module 7: Grafana Plugins and Extensions

1. Overview of Plugin Ecosystem
2. Installing and Managing Plugins (Panels, Apps, Data Sources)
3. Custom Plugin Development Basics
4. Popular Plugin Use Cases (e.g., Zabbix, Worldmap, Discrete Panel)
5. Troubleshooting Plugin Issues

Module 8: Performance Tuning and Maintenance Best Practices

1. Monitoring Grafana Performance
2. Optimizing Dashboard Load Time
3. Database and Log Maintenance
4. Backup and Disaster Recovery Planning
5. Upgrading Grafana Safely and Effectively