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## Middleware.io training

2 days (14 hours)

### Presentation

[Middleware.io](#): A cloud-based observability platform to streamline and visualize your customers' entire technology stack? With our Middleware training course, it's totally possible!

During this course, monitor metrics, logs, events and traces in real time on the Middleware.io dashboard. This will help you identify, understand and solve problems in your cloud infrastructure.

With [the evolution of the Cloud](#), this technology will enable your organization to modernize several agile, scalable and resource-hungry observability tools.

This tool also enables you to collect telemetry data from the front-end to the back-end with ease, so that your infrastructure is quickly observable.

This course will introduce you to the latest features of the Middleware.io tool.

### Objectives

- Understand the role and benefits of Middleware.io for information systems
- Explore middleware integrations and collaboration strategies with other tools
- Implement real-time monitoring solutions, including RUM and the use of OpenTelemetry
- Mastering middleware infrastructure and containerization concepts
- Improve application performance using APM techniques

### Target audience

- Cloud engineers
- Developers
- IT managers
- DevOps

## PREREQUISITES

Understanding of general IT concepts, administration and monitoring.

## OUR MIDDLEWARE TRAINING PROGRAM

### START-UP

- Tool presentation
- Middleware installation and configuration
- Use cases
- Understand how to provide an observability solution

### MIDDLEWARE INFRASTRUCTURE AND CONTAINERIZATION

- Understanding the importance of middleware infrastructure
- Installing and using Middleware on Docker for container management
- Installing and using middleware on Kubernetes
  - DaemonSet configuration
  - Enable components to connect to the Infra Agent
- Agent installation with Microsoft Powershell scripts
- Middleware integration best practices in Linux and Windows environments

### APPLICATION PERFORMANCE MANAGEMENT (APM)

- Introduction to Middleware APM concepts
- Improving performance with Cloudflare
- Presentation of languages and frameworks optimized for Middleware (Deno, Go, Java, .NET, etc.).
- Strategies for monitoring and optimizing application performance
- Practical workshop: setting up an APM solution for a demo application

### MIDDLEWARE INTEGRATION AND COLLABORATION

- Middleware integration overview
- Exploration of suitable collaboration and project management tools
- Database management and contextual networking
- Integration of streaming and telemetry solutions
- Practical workshop: integrating a streaming system into a middleware application

# REAL USER MONITORING (RUM) AND MOBILE MONITORING

- Importance of RUM for middleware applications
- Real-time performance monitoring techniques in browsers
- Mobile application monitoring strategies
- Practical workshop: implementing a RUM solution for a web application

## DATA INGESTION API AND OPENTELEMETRY

- Understanding the use of data ingestion APIs in middleware systems
- Introduction to OpenTelemetry for data collection and analysis
- Data ingestion customization with OTel Collector Contrib
- Configuring and using OpenTelemetry in a middleware environment
- Best practices and pitfalls to avoid in data ingestion

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.