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Backstage training with Crossplane

3 days (21 hours)

Presentation

Discover how Backstage and Crossplane are transforming service and infrastructure management. Backstage centralizes your tools and workflows in a single portal, Crossplane lets you manage your cloud resources decoratively via Kubernetes.

Our Backstage with Crossplane training course will guide you through the advanced aspects of these two platforms, enabling you to master the essential mechanisms needed to centralize your tools and optimize the management of your infrastructures.

We'll create a unified platform tailored to your organization's needs.

After this training, your team will master these technologies to automate your infrastructures, improve collaboration and optimize the development process.

This course will introduce the latest features and functionalities available in Backstage.

Objectives

- Acquire complete mastery of Backstage's advanced functions
- Set up automated development and deployment workflows
- Customize the user interface and extend functionality with plugins.
- Installing and configuring Backstage
- Provision and manage your cloud resources via
- Create a customized internal development platform

Target audience

- DevOps engineers
- Software developers
- System administrators
- Cloud architects

Prerequisites

Familiarity with CI/CD tools.

Basic knowledge of Kubernetes and Infrastructure as Code (IaC) concepts.

Our Backstage training program

Understanding Backstage principles and use cases

- What is Backstage and why is it used?
- Backstage's main features
- Plugin creation and customization to meet specific needs
- Management of CI/CD pipelines, documentation and resources

Discover the fundamental concepts of Crossplane

- Understanding the role of Kubernetes in infrastructure management
- Infrastructure standardization
- Cloud resource provisioning
- Introducing CRDs and Composite Resources

Backstage and Crossplane integration

- Plugin configuration
- Automated workflows between the two platforms
- Advanced resource visualization and management

Service and Entity Management

- Creating and documenting services in Backstage
- Use Crossplane to forecast associated resources
- Organizing infrastructure services with tags and metadata
- Using APIs and command line interfaces

Customization and scalability

- Specific plug-in development added
- Creating custom components for the user interface
- Use Backstage APIs to enrich the platform experience

Visualization and advanced resource management

- Exploring customer relationships between entities and infrastructures in Backstage
- Create customized dashboards to monitor cloud services and resources
- Data flow and performance monitoring

Production Deployment

- Authorization management and access security
- Documentation and updating of Backstage services and infrastructures
- Platform performance monitoring and continuous optimization

Companies concerned

This 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, 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.