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Sign up

Agones training: Hosting game servers on Kubernetes

2 days (14 hours)

Presentation

Our Agones training course will teach you how to deploy and develop online games on Kubernetes using this platform for scaling and orchestrating dedicated multiplayer servers.

During this course, you'll learn about the Agones environment, creating highly scalable and reliable games, managing resources, game sessions or updates to guarantee an optimal experience for players.

Agones works seamlessly with game development tools such as Unreal Engine, Unity or Google Cloud to ensure games are deployed on Kubernetes.

With the help of this training course, you'll master the key concepts of Agones, the creation and [management of Kubernetes clusters](#), or player monitoring.

As with all our training courses, this one will introduce you to the latest stable version of Agones (at the time of writing [Agones v1.31.0](#)).

Objectives

- Optimize online gaming performance
- Understanding the Tekton environment
- Mastering Agones' key concepts
- Deploy and update real-time games with Agones
- Creating and managing Kubernetes clusters for Agones

Target audience

- DevOps
- Developers
- Game development engineers

Prerequisites

- Kubernetes basics
- Fundamentals of online game development

Agones training program

Tool introduction

- Introducing Agones and its features
- Understanding the online game development environment
- Installation and configuration
- Overview
- First steps

Key concepts

- Create, manage and delete game sessions
- Define resource quotas to ensure efficient use on Kubernetes clusters
- Optimization of resources allocated to gaming sessions
- Update management
- Game session security
- Troubleshooting and error checking

Kubernetes integration

- Presentation of the Agones architecture and its integration with Kubernetes
- Use pods, volumes or services to create scalable game environments
- Configuration customization
 - Using ConfigMaps and Secrets
 - Define game or restart strategy configurations
- Agones error management and troubleshooting with Kubernetes
- Integration security

Access to Agones via the Kubernetes API

- Access the REST API via Kubectl
- List all game servers in the default namespace
- Allocate a game server from a fleet

- Use of informants and listeners
- Using Allocator Service

Player tracking

- GameServer capacity management
- Connecting and disconnecting players
- Check player data
 - Get the current number of players
 - Retrieve the complete list of connected players

Create and run a simple game server

- Run the simple game server
- Building a simple game server
- Running a custom game server

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.

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.