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# Juju training: Operator lifecycle manager

1 day (7 hours)

### Presentation

Our Juju training will enable you to deploy and manage infrastructure, cloud applications and operations. This open source framework from Canonical enhances the runtime experience of Kubernetes operators. In this course, you'll learn how to create new collections in MongoDB, add endpoints, define a new entity structure or understand Charmed Operators. Juju.js aims to simplify the web development process while delivering optimal performance and a smooth user experience. You'll be able to quickly create interactive user interfaces, animations and transitions. This Operator Lifecycle Manager (OLM) will provide you with a range of services enabling you to deploy and configure all operators in a model through administrator direction. You'll also be able to run workloads from applications, on Kubernetes and virtual machines. Our training will be presented with the latest Juju features.

# Objectives

- Deploy and manage infrastructure and operations
- Understanding Juju's key concepts
- Creating interactive user interfaces

### Target audience

- Developers
- Directors
- DevOps

### Prerequisites

Knowledge of development tools.

## Juju Training Program

### **Tool introduction**

- What is Juju?
- Understanding the front-end development environment
- Installation
- Features
- Use cases

### Practical guides

- Debugging boot and machine failures
- Using the machine via ssh
- LXC and LXD
- Examine newspapers
- Charmed Operators

### **API** reference

- Adding endpoints
- Exposing internal golang execution debug endpoints
- Accessing running goroutines or profiles
- Define functions to easily obtain information from the agent
- Using commands

#### Tests

- Perform unit tests
  - Test files of the form

  - Using package\_test.go as a test entry pointAccess or modify the internal aspects of the package for testing purposes
- Perform integration tests
- Update tests

#### New collection

- Creating a new collection in MongoDB
- Observe and modify the stored state

- Add a state shim to interact with Juju global state
- Handling collection entities
- Define a new entity structure :

### 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.