# Course : Amazon Web Services (AWS) - MLOps engineering on AWS

**Official AWS course**

*Practical course - 3d - 21h00 - Ref. MLS*
*Price : 2470 € E.T.*

Nouvelle édition

With this training, you'll apply DevOps methodology to machine learning to create, train and deploy ML models. Based on the MLOps maturity framework, it covers the initial, repeatable and reliable levels. You'll learn how to manage data, code and models, automate processes, collaborate effectively across teams and monitor model performance in production to react in the event of drift.

## Teaching objectives

**At the end of the training, the participant will be able to:**

- Explain the advantages of MLOps
- Compare and contrast DevOps and MLOps
- Assess the safety/governance needs of an ML case and propose solutions and mitigation strategies
- Setting up experimental environments for MLOps with Amazon SageMaker
- Present 3 options for creating a complete CI/CD pipeline in the ML context
- Review best practices for automating packaging, testing and deployment (data/model/code)
- Demonstrate how to monitor ML-based solutions
- Demonstrate the automation of an ML solution: testing, packaging, deployment, drift detection and retraining
- Explain best practices for versioning and integrity of ML assets (data, model, code)

## Intended audience

MLOps and DevOps engineers in charge of deploying and monitoring ML models on AWS

**PARTICIPANTS**

MLOps and DevOps engineers in charge of deploying and monitoring ML models on AWS

**PREREQUISITES**

Completion of the course "AWS Technical Essentials" (Ref. AWG), "DevOps Engineering on AWS"( Ref. AWC) or "Practical Data Science with Amazon SageMaker" (Ref. PDW).

**TRAINER QUALIFICATIONS**

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

**ASSESSMENT TERMS**

Assessment of targeted skills prior to training.
Assessment by the participant, at the end of the training course, of the skills acquired during the training course.
Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.
At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.
An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

## Prerequisites

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## Certification

Official course without certification.
Comment passer votre examen ?

## Practical details

**Teaching methods**

Training in French. Official course material in English and digital format. Good understanding of written English.

**TEACHING AIDS AND TECHNICAL RESOURCES**

The teaching resources used are the publisher's official materials and practical exercises.

**TERMS AND DEADLINES**

Registration must be completed 24 hours before the start of the training course.

**ACCESSIBILITY FOR PEOPLE WITH DISABILITIES**

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

## Course schedule

### 1 Introduction to MLOps

- Procedures.
- Actors.
- Technologies.
- Security and governance.
- MLOps maturity model.

### 2 Initial MLOps - Experimentation environments in SageMaker Studio

- Integrate MLOps into the experimentation phase.
- ML environment configuration.
- Demo: creating and updating a lifecycle configuration in SageMaker Studio.
- Workbook: MLOps initial.

**Hands-on work**

Deploying a SageMaker Studio environment via AWS Service Catalog

### 3 Reproducible MLOps - Repositories

- Data management for MLOps.
- ML model version management.
- Code repositories for ML.

### 4 Reproducible MLOps - Orchestration

- Pipelines ML.

**Demonstration**

Orchestrate template creation with SageMaker Pipelines

### 5 Reproducible MLOps - Orchestration (continued)

- End-to-end orchestration with AWS Step Functions.
- Complete orchestration with SageMaker Projects.
- Demo: standardizing an end-to-end ML pipeline with SageMaker Projects.
- Use of third-party tools to ensure reproducibility.
- Demo: integrating the human into the inference loop.
- Governance and safety.
- Demo: good security practices with SageMaker.
- Workbook: MLOps reproducible.

**Hands-on work**
Automate a workflow with Step Functions

### 6 Reliable MLOps - Scalability and testing

- Scalability and multi-account strategies.
- Tests and traffic distribution.
- Demo: using SageMaker Inference Recommender.

**Hands-on work**
Testing model variants

### 7 Reliable MLOps - Scalability and testing (continued)

- Workbook: multi-account strategies.

**Hands-on work**
Traffic distribution management

### 8 Reliable MLOps - Supervision

- The importance of supervision in machine learning.
- Operational issues linked to model supervision.
- Resolution of problems detected by supervision.
- Workbook: Reliable MLOps.
- Practical workshop: building and troubleshooting an ML pipeline.

**Hands-on work**
Monitor a model for data drift

## Dates and locations

**REMOTE CLASS**
2026 : 23 June, 8 Dec.

**PARIS LA DÉFENSE**
2026 : 23 June, 8 Dec.