# Course : Amazon Web Services (AWS) - Practical Data Science with Amazon SageMaker

**Official AWS course**

*Practical course - 1d - 7h00 - Ref. PDW*
*Price : 810 € E.T.*

Nouvelle édition

With this training course, you'll discover a typical day in the life of a data scientist, so you can collaborate effectively with them and develop applications incorporating machine learning. You'll learn the basic process used by data scientists to create machine learning solutions on Amazon Web Services (AWS) using Amazon SageMaker. You'll follow the various steps involved in creating, training and deploying a machine learning model through instructor-led demonstrations and hands-on work.

## Teaching objectives

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

- Discuss the advantages of different types of ML for solving business problems
- Describe the processes, roles and responsibilities of a team to design and deploy machine learning systems
- Explain how data scientists use AWS tools and ML to solve a common business problem
- Summarize the steps a data scientist takes to prepare data
- Summarize the steps a data scientist takes to train ML models
- Summarize the steps a data scientist takes to evaluate and optimize ML models
- Summarize the steps involved in deploying a model on an endpoint and generating predictions
- Describe the challenges involved in operationalizing ML models
- Linking AWS tools to their ML function

## Intended audience

Application developers, Devops engineers.

**PARTICIPANTS**

Application developers, Devops engineers.

**PREREQUISITES**

Completion of the "AWS Technical Essentials" course. Basic knowledge of the Python programming language and statistics.

**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

Completion of the "AWS Technical Essentials" course. Basic knowledge of the Python programming language and statistics.

## 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 machine learning

- The benefits of machine learning.
- Types of machine learning approaches.
- Framing a business problem.
- Prediction quality.
- Processes, roles and responsibilities in machine learning projects.

### 2 Introduction to data preparation

- Data analysis and preparation.
- Data preparation tools.
- Demonstration: review of Amazon SageMaker Studio and Notebooks.

**Hands-on work**

Prepare data using SageMaker Data Wrangler.

### 3 Entraîner un modèle

- Steps for training a model.
- Choose an algorithm.
- Train a model in Amazon SageMaker.
- Amazon CodeWhisperer.
- Demonstration: Amazon CodeWhisperer in SageMaker Studio Notebooks.

**Hands-on work**

Train a model with Amazon SageMaker.

### 4 Evaluating and optimizing a model

- Model evaluation.
- Model tuning and hyperparameter optimization.

**Hands-on work**

Model optimization and hyperparameter optimization with Amazon SageMaker.

### 5 Deploying a model

- Model deployment.

**Hands-on work**
Deploy a model on an endpoint in real time and generate a prediction.

### 6 Operational challenges

- ML responsible.
- ML and MLOps teams.
- Automation.
- Monitoring.
- Model updating (model testing and deployment).

### 7 Other model-building tools

- Different tools for different skills and business needs.
- No-code machine learning with Amazon SageMaker Canvas.
- Demonstration: presentation of Amazon SageMaker Canvas.
- Amazon SageMaker Studio Lab.
- Demonstration: presentation of SageMaker Studio Lab.

**Hands-on work**
Integrate a web application with an Amazon SageMaker model endpoint (optional).

## Dates and locations

**REMOTE CLASS**
2026 : 30 June, 15 Dec.

**PARIS LA DÉFENSE**
2026 : 30 June, 15 Dec.