

AWS Exam Readiness: Certified ML Specialty

<https://www.aws.training/Details/eLearning?id=42183>



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This course focuses on **exam mechanics, logistics, and technical concepts**, and encourages reflection on your competencies in exam domains to inform your study.



The course is for ML practitioners with at least one year of experience



Prerequisite
foundational knowledge

- Proficiency expressing the intuition behind basic ML algorithms and performing basic hyperparameter optimization
- Understanding of the ML pipeline
- Experience with ML and deep learning frameworks
- Understanding of and experience in model training, deployment, and operational best practices



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-2:39

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This course is not designed to teach you machine learning, but to navigate and prepare for the exam.

Outcomes of the course:



Identify your strengths and weaknesses in the exam domains.



Describe the technical topics and concepts that make up each exam domain.

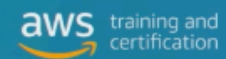


Summarize the logistics and mechanics of the exam and its questions.



Use effective test-taking and study strategies.

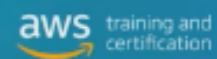
Course outline



Module 1	Module 2	Module 3	Module 4
Course Introduction	Exam Overview & test-taking	Domain 1: Data engineering	Domain 2: Exploratory data analysis
Module 5	Module 6	Module 7	Module 8
Domain 3: ML implementations and operations	Comprehensive study questions	Study material and strategies	Wrap-up

Exam Overview and Test-Taking Strategies

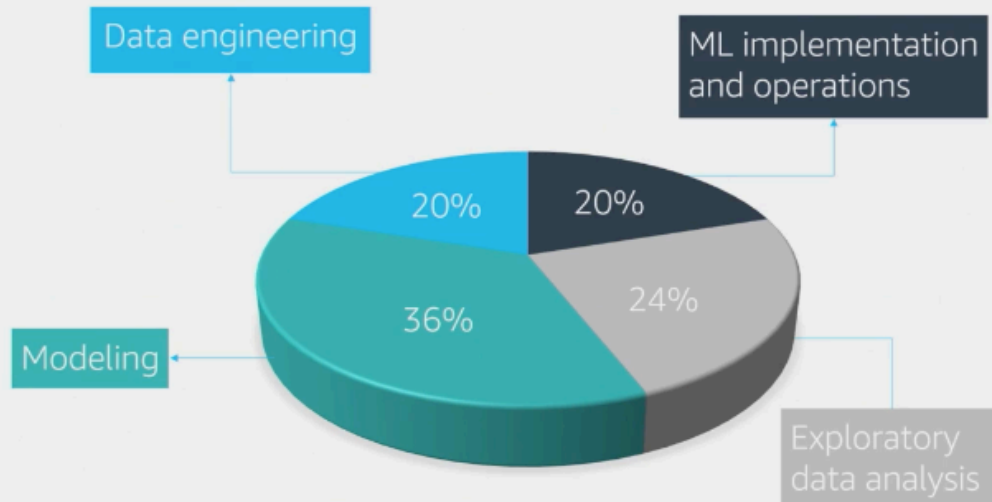
The exam validates your ability to build, train, and deploy ML models in AWS



More specifically, it validates that you can:

1. Select and justify the appropriate ML approach for a given business problem
2. Identify appropriate AWS services to implement ML solutions
3. Design and implement scalable, cost-optimized, reliable, and secure ML solutions

Exam questions are grouped into four domains



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Exam logistics

Select each flashcard below to learn about exam logistics, like timing of the exam, testing center locations, and testing requirements.

<p>You are given 170 minutes to complete the exam. It consists of around 65 questions.</p>	<p>Test testing centers around the globe by one of two testing vendors: PSI and Pearson VUE. At the end of this course, you will notice a link and some additional information on how to register for the exam online.</p>	<p>are the requirements you'll encounter on test day:</p> <ul style="list-style-type: none">• Two forms of ID are required. One must be a government-issued ID with a photo.
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Types and characteristics of exam questions

There are two types of questions on the exam:

- **Multiple choice:** Has one correct response and three incorrect responses (distractors).
- **Multiple response:** Has two or more correct responses out of five or more options. These types of questions will explicitly tell you to "(Select TWO)" or "(Select THREE)."

Incorrect answers are plausible

Incorrect answers (or distractors) are designed to be plausible options.

EXAMPLE

A data scientist is working on optimizing a model during the training process by varying multiple parameters. The data scientist observes that, during multiple runs with identical parameters, the loss function converges to different, yet stable, values.

What should the data scientist do to improve the training process?

- A. Increase the learning rate. Keep the batch size the same. **[REALISTIC DISTRACTOR]**
- B. Reduce the batch size. Decrease the learning rate. **[CORRECT]**
- C. Keep the batch size the same. Decrease the learning rate. **[REALISTIC DISTRACTOR]**
- D. Do not change the learning rate. Increase the batch size. **[REALISTIC DISTRACTOR]**

Qualifiers and key phrases are often part of questions

Look for qualifiers that can help you eliminate answer options. Look for key phrases that may imply AWS services or features.

EXAMPLE 1: Qualifiers

A company is interested in building a fraud detection model. Currently, the data scientist does not have a sufficient amount of information due to the low number of fraud cases.

Which method is **MOST likely** to generate the **GREATEST** number of valid fraud cases?

EXAMPLE 2: Key phrases

A company is setting up a system to manage all of the datasets it stores in Amazon S3. The company would like to **automate running transformation jobs** on the data and...

Which solution will allow the company to achieve its goals with **minimal management**?

Additional information

- Questions are designed to include only the information you need to answer them (there is no trick information added to distract you or throw you off)
- Some questions may require minor calculations (which you can complete using the pencil and paper provided to you by the testing center, or in your head)
- The following is NOT included in exam questions:
 - Services and features that are new and have only been available for six months or less
 - Information that's likely to change, like pricing and performance metrics

Test-taking strategies

Use these strategies when answering questions:

- ✓ Read and understand the question before reading answer options (pretend the answer options aren't even there at first).
- ✓ Identify the key phrases and qualifiers in the question.
- ✓ Try to answer the question before even looking at the answer choices, then see if any of those answer choices match your original answer.
- ✓ Eliminate answer options based on what you know about the question, including the key phrases and qualifiers you highlighted earlier.
- ✓ If you still don't know the answer, consider flagging the question and moving on to easier questions. But remember to answer all questions before the time is up on the exam, as there are no penalties for guessing.