

# Home > Training & Certifications

# How I scored 925/1000 on AWS DevOps Engineer Professional Certification in 2 weeks

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AWS DevOps Engineer Professional

### **A Practical Guide**

AWS DevOps Professional is undoubtedly one of the most essential and complex certifications to achieve, primarily because of the many arguments to study and understand.

Why should you take the exam? Because it focuses on software development lifecycle automation, IAM policies, best practices, HA, and Disaster Recovery solutions.

The knowledge gained from this exam will help you exploit these arguments in the right way, following best practices, keeping your deployments maintainable, secure, scalable, and resilient.

Also, this certification is very well expandable in professional recruitment.

As I needed to recertify myself in July 2021, I had to refresh my memory on all of the topics covered in this exam and study new concepts and services introduced in the years.

AWS always asks DevOps to be updated on all the new topics, hence the need for continuous recertification; by doing so, I found myself needing to write down all the notes I took in the process to help me study.

As I found my notes growing and growing, I've thought, "why not share my experience and what I've learned during my study process?" and so I've started taking more and more detailed information.

After ten days of hard work, I took the exam and passed! Then, when I received my final score (925/1000), I decided that my study material was worth sharing.

So here we are: in this article, I'll try to guide you as much as I can in covering all the topics of the DevOps exam, particularly the ones I've found particularly important.

I'll also share some valuable insights, tips & tricks, and resources to help you prepare as best possible.

So, without further ado, let's dig in!

## **Exam Structure**

The exam has a total of **75 questions** for **170 minutes**. If English is not your first language, you can ask for a bonus of **20 extra minutes**.

I've found that doing the exam remotely via **Pearson/VUE** grants me the extra minutes directly.

Also, I think that doing the AWS exams remotely, at home, is also an excellent way to feel more relaxed and thus more concentrated. But that is just my personal preference.

If you decide to do the exam remotely, just be sure to do the initial setup at least 1 or 2 days before the actual exams to verify your environment, documents, and internet connection.

In terms of questions, I've found it generally helpful and applicable to all AWS exams: read the question carefully to find **keywords** or specific words that help you isolate the correct answer more efficiently. It works especially well for the more straightforward questions.

**Manage time carefully** for all the questions; if one is too difficult to handle at the moment, **mark it for later review** to maximize your efficiency.

Try to learn **how to scan the questions**: not all the text is essential: before reading, try to check the start, center, and last part of the text in search for keywords.

When at home, you **can't use pen and paper** (at least I wasn't allowed) and are requested to keep a steady position all the time with your head visible in the computer camera.

# **My Personal Experience**

To recertify, I've personally followed what I've found in these years, being a good overall strategy:

- 1. I've started assessing my preparation using some free online resources like these:
  - Testpreptraining
  - Allfreedumps
  - Braindumps
  - AWS certified DevOps Engineer Professional SampleExam
- 2. Prepared my daily routine to have at least half of my working day dedicated to studying. In my opinion, morning is more profitable, as I found myself too tired in the afternoon to focus correctly on learning.
- 3. I've mainly studied the following resources:
  - 1. Exam Readiness I must admit that, in my opinion, this one was **not exhaustive enough** to cover the key concepts in detail for the exam.
  - 2. This website is becoming very well known, as it offers a broader overview of the critical stuff, divided by exam type. I've used this site to check what to study in detail.
  - 3. Amazon FAQs: this is my classic trick; whenever I want to discover exciting facts about a service I don't have fully experienced with, FAQs are, in my opinion, the fastest way to find out how it works, what peculiarities it has, how it costs, and most importantly its quota limits.
- 4. When I study, I take many notes and schemes as I find myself memorizing and understanding things better that way, and this article is here, thanks to that.

I've dedicated myself for at least 4-5 hours a day, mainly in the morning. Don't take my words for granted. It depends on your experience on AWS; the more hands-on you have, the less time you'll need to prepare.

Most important is defining the critical exams topic that will let you cover at least 80% of the questions. By doing this, you'll have at least a solid base of knowledge to tackle the exam, then, based on your confidence level, on your schedule, on your other tasks, you'll be able to dive deep into whatever argument you need/want to.

To increase my odds of success, I've also checked information and doubts with my teammates. It's vital to take advantage of other people's knowledge every time you can. We all recertify this year, so we confronted arguments, times, and references for studying.

Whenever you have people in your company that has already taken this or other AWS Certifications, by all means, interact with them to obtain precious insights!

I would also like to talk about an aspect that I found a bit **lacking in other guides online**: time constraints! If you're trying this exam for the first time or choose to prepare just the bare minimum, you'll likely find yourself in need of more time to complete the questions, especially if English is not your primary language.

What I would suggest for managing your time correctly is:

- 1. Plan and apply for a time extension, if eligible, with AWS or directly with PSI or Pearson/VUE. To do so, please check this page under "Requesting Accommodation."
- 2. Try to focus on questions that you are confident with, leaving uncertain ones for later review.
- 3. Try to prepare with many dumps; this will be your best option for faster reading actual questions and managing the comprehensive exam.
- 4. Become familiar with the keywords and specific topics we will be covering in the rest of the article; this will help you understand questions better and faster.
- 5. Try to remain calm; this will help you maintain focus.
- 6. Do at least 1 or 2 practice exams, and this will help you greatly in managing physical stress during the exam, which is quite long (almost 3 hours).
- 7. What I found is that typically you start losing concentration after the first 30-40 questions. Try to remember that to force yourself to remain focused.

In the next part of this article, I'll give you a detailed guide of all the topics that, ideally, must be covered for the exam.

Don't worry if they seem too much to handle; they are here to give a complete list, with reference links, to those of you that want to achieve the best possible results. I'll also cover the most critical topics in greater detail to maximize your studying efficiency in a .pdf file at the end of this article.

# **Exam Topics**

I recommend reading at least the FAQ on AWS for every argument presented here, which gives some insights into essential characteristics. If you're experienced enough, just try to read them fastly to improve your efficiency.

This list is created based on my personal experience in seeing what questions appeared the most, alongside the suggested topics from **Jayendra Patil**.

## Infrastructure as Code & Managed Deploying services

- CloudFormation
- Elastic BeanStalk
- AWS Opswork
- EC2
- ECS

The exam covers many deployment scenarios. Depending on requirements, you have to understand what combination of services you can use to deploy your solution, being them more or less managed.

The services described here are the most common subjects in the questions.

#### **Monitoring**

- AWS Config
- AWS CloudTrail
- AWS CloudWatch

These services are heavily requested in questions; you need to know the differences and what kind of scenarios they can cover.

# **Build CD/CI**

- AWS CodePipeline
- AWS CodeCommit
- AWS CodeBuild
- AWS CodeDeploy

AWS CodePipeline and the other CD/CI tools are very important because they can be used to manage and deploy solutions for CloudFormation as well as EC2 and ECS directly.

#### Governance

- Personal Health Monitor
- AWS Truster Advisor
- AWS System Manager

For these three services, you'll have to understand the differences and what they can offer in terms of governance in your project.

## **Networking**

- VPC
- NACL
- VPC Flow Logs
- Route53
- Routing Policies
- CloudFront
- ELB, ALB, NLB
- Autoscaling

Route53 is especially important alongside ELB and Autoscaling to perform:

- Blue/Green Deployment
- Canary Deployment

# **Security**

- IAM
- AWS Inspector
- AWS App Discovery
- S3 and S3 permissions with Cross-Account replication

In particular, IAM for Cross Account Assume Role technique and Inspector with System Manager.

## **Database & Caching**

- RDS
- RDS Read Replica
- RDS MultiAZ
- DynamoDB
- DynamoDB DAX
- DynamoDB Global Table
- Aurora Multi-Master
- Aurora Read Replica
- Aurora Global Database
- Elasticache
- CloudFront

Concerning AWS Databases, the exam checks the ability to apply DR techniques or to serve content in High Availability.

# Cheatsheet

Following is a list of tips that I've collected by doing several preparatory exams and are based on my experience, my colleagues, and solutions proposed by sites themselves.

- 1. Amazon inspector Agent controls installed software, not SSH!
- 2. AWS security inspector can only check instances, NOT AMIs!!

- 3. There is no AWS::EC2::Container resource type in CF!!
- 4. Update a digest on a task definition to let ECS read modified new images!
- 5. If we are managing Elastic Beanstalk, the property BlockDeviceMapping in .ebextension is used to set snapshots for extra volumes.
- 6. Cloud Formation's InstrinsicFunctions can be used in: Resources, Metadata, Outputs, and Update policies.
- 7. EC2 Memory is always a custom metric, and I can't stress this enough!
- 8. Personal Health is for checking the health of services.
- 9. You can pass the ECS cluster in an autoscalingConfig in CF if needed.
- 10. Global Service in CloudTrail is mandatory to track IAM!
- 11. NetworkIn/Out is an EC2 metric, not an ELB metric!
- 12. RDS oracle does not support cross-region snapshot copy.
- 13. RDS publishes availability events.
- 14. MultiAZ RDS performs updates at the same time to prevent downtime and make a read replica.
- 15. When we have a question with flow logs, check it, because it is helpful for network inspection.
- 16. Multiple lambdas reading from a Dynamo stream can lead to throttling; use a single lambda then fan-out to other lambdas for processing.
- 17. CloudWatch and System manager can't track resources underutilization.
- 18. ELB can be configured in dual-stack for using IPV6.
- 19. We can't remove a subnet if an EC2 is still there.
- 20. Restricting the launch of EC2 in a VPC requires resource-level permissions.
- 21. Never write logs in the root volume in EC2. Better use a second non-ephemeral volume.
- 22. Personal Health can be used for EC2 maintenance and not only for on-prem.
- 23. Placement groups can help achieve 10GBs connection speed.
- 24. CloudWatch doesn't allow sub-minute granularity.
- 25. CodeDeploy can react directly to CloudWatch alarms.

- 26. Opswork uses chef recipes to build docker containers in a layer, and there is no premade docker layer.
- 27. EC2 auto-recovery works only in the same AZ.
- 28. Delete Policy only has Delete or Retain, not Empty.
- 29. We don't need ELB, ALB, or NLB for serverless apps if we work with API Gateway and lambdas.
- 30. ReduceRedundancyStorage is not a Storage Class!
- 31. In Opswork, custom recipes must be enabled as an option. They are not enabled by default.
- 32. Opswork maintains only five versions of a stack!
- 33. RDS cross-region read replicas are only for MySQL, not Oracle.
- 34. CloudWatch Event can be used to start a pipeline, not SNS!

## **Online Resources**

In general, AWS' NDA about exam questions prevents finding official material for preparing yourself. Nonetheless, there are several materials out there that, in my opinion, proved to be valuable and reliable (it's utterly simple to find free questions online which have wrong answers).

Here is a list of both **free** and **paid** resources that I've used to prepare for the final exam:

- 1. All Free Dumps: many **free** questions with realistic case scenarios, just beware of answers: take your time to review comments and identify the correct one among the suggestions.
- 2. Official **free** AWS sample questions.
- 3. Braindumps: **free questions** as the first link, just verify the answer or just remind the possible scenarios to get an idea on how an exam would be composed.

For paid resources, which I highly recommend if you are serious about the certification, I would suggest:

1. Whizlabs: the questions are very legitimate, and the answers are exact and informative; in the package I've bought with my colleagues for less than 20USD

there were seven complete exams. A must-buy, and you can share the account too!

Many will suggest Udemy.

I tried it the first time I did the exam by buying both the course and the simulations, just to find the exam way more complex and different topics.

On the other hand, exams presented by Whizlabs were way more complicated than the actual ones, resulting in a complete preparation.

## To conclude

I know that AWS DevOps Professional certification is daunting; what I've tried to give you in this article is just a summary of my personal experience, deriving from my approach in managing AWS certifications.

To help you further understand the key concepts, I've also prepared a .pdf document containing a more in-depth analysis of some of the most important AWS services requested in the exam. If you're interested, download it here.

In conclusion, if you were wondering if it would be possible to prepare the AWS DevOps Professional certification on your own, without taking online courses, now you know that the answer is ... technically yes :)

Good luck with your next AWS certification, and see you soon!



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