

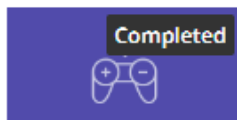
EPAM University Programs
Cloud&DevOps Fundamentals Autumn 2022
AWS Cloud Basic

1. Read the terms of Using the AWS Free Tier and the ability to control their own costs.
2. Register with AWS (first priority) or alternatively, you can request access to courses in AWS Academy if you are currently a student of certain University.
3. Find the hands-on tutorials and AWS Well-Architected Labs for your AWS needs. Explore list of step-by-step tutorials for deferent category. Use, repeat as many as you can and have fun))
4. Register and pass courses on AWS Educate. Filter by checking Topic Cloud Computing and Foundational Level. Feel free to pass more.
5. Register and pass free courses on AWS Skillbuilder. AWS Cloud Practitioner Essentials: Core Services, **AWS Cloud Practitioner Essentials: Cloud Concepts**. Try AWS Cloud Quest: **Cloud Practitioner**.

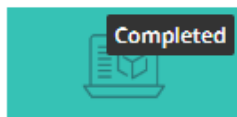


Learner dashboard

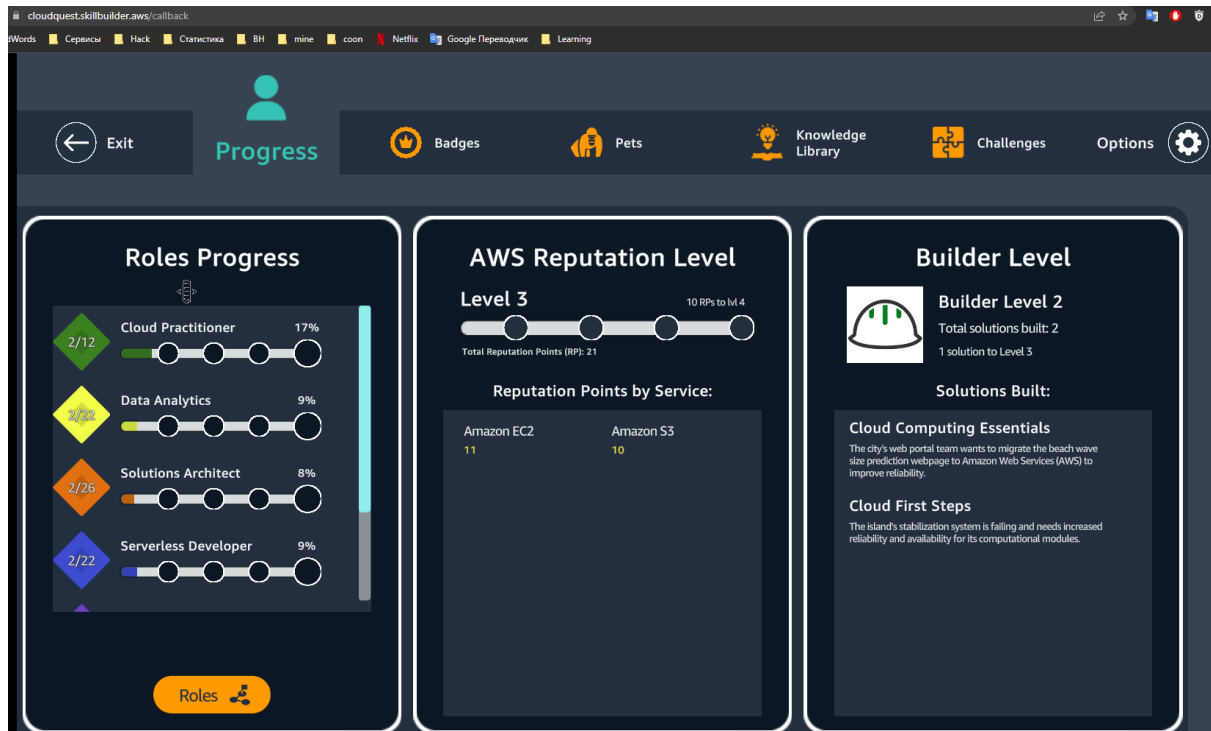
My courses



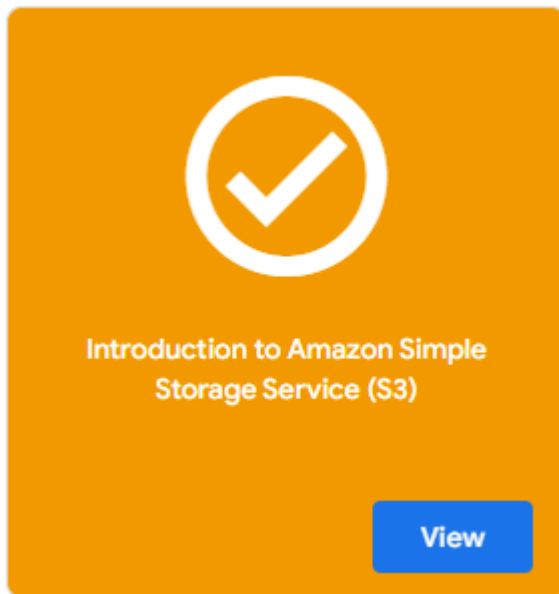
AWS Cloud Quest: Cloud Practitioner
EN | Digital training



AWS Cloud Practitioner Essentials: Cloud Concepts
★ 5.0 EN | Digital training | 30m 00s



6. Pass free courses on Amazon qwiklabs



7. Review Getting Started with Amazon EC2. Log Into Your AWS Account, Launch, Configure, Connect and Terminate Your Instance. Do not use Amazon Lightsail. It is recommended to use the t2 or t3.micro instance and the CentOS operating system.

Instances (2) Info									
Find instance by attribute or tag (case-sensitive)									
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...
<input type="checkbox"/>	L1_Jenkins_Ubuntu_22.04	i-0fd83c2100169e884	Stopped	t2.micro	-	No alarms	us-east-1c	-	-
<input type="checkbox"/>	L1_Test_environment	i-0f9c20cead53d0a9	Stopped	t2.micro	-	No alarms	us-east-1d	-	-

8. Create a snapshot of your instance to keep as a backup.

Successfully created snapshot snap-0f9eac1c3632c4a0.

Snapshots (1)

Owned by me

Search

Name	Snapshot ID	Size	Description	Storage...	Snapshot status	Started	Progress	Encryption	KMS key ID
-	snap-0f9eac1c3632c4a0	8 GiB	test snapshot	Standard	Pending	2022/12/12 18:33 GMT+2	Unavailable (0%)	Not encrypted	-

9. Create and attach a Disk_D (EBS) to your instance to add more storage space. Create and save some file on Disk_D.

Successfully attached volume vol-06bd4eb4dff5f6752 to instance i-0fd83c2100169e884.

You can now create Amazon Data Lifecycle Manager policies to automate snapshot management directly from this screen. Select the volumes to back up, and then choose **Actions**, **Create snapshot lifecycle policy**. For more information, see the [Knowledge Center article](#).

Volumes (3)

Search

Name	Volume ID	Type	Size	Snapshot	Created	Availability Zone	Alarm stat...	Attached Instances	Encrypti
-	vol-0bd94285d97ce0d2c	gp2	8 GiB	1...	2022/11/29 16:14 GMT+2	us-east-1d	No alarms	i-0f9c20cead33d0a9 (L1...	Not encr
-	vol-0955ed548626657c3	gp2	12 GiB	1...	2022/11/25 20:43 GMT+2	us-east-1c	No alarms	i-0fd83c2100169e884 (L1...	Not encr
-	vol-06bd4eb4dff5f6752	standard	1 GiB	-	2022/12/12 18:40 GMT+2	us-east-1c	No alarms	i-0fd83c2100169e884 (L1...	Not encr

10. Launch the second instance from backup.

Instances (3) info

Find instance by attribute or tag (case-sensitive)

Connect Instance state Actions Launch instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
L1_Jenkins_Ubuntu_22.04	i-0fd83c2100169e884	Stopped	t2.micro	-	No alarms	us-east-1c	-	-	-
L1_Test_environment	i-0f9c20cead33d0a9	Stopped	t2.micro	-	No alarms	us-east-1d	-	-	-
from backup	i-0eca643782c42a220	Pending	t2.micro	-	No alarms	us-east-1c	ec2-52-87-208-77.com...	52.87.208.77	-

11. Detach Disk_D from the 1st instance and attach disk_D to the new instance.

Successfully attached volume vol-06bd4eb4dff5f6752 to instance i-0eca643782c42a220.

You can now create Amazon Data Lifecycle Manager policies to automate snapshot management directly from this screen. Select the volumes to back up, and then choose **Actions**, **Create snapshot lifecycle policy**. For more information, see the [Knowledge Center article](#).

Volumes (4)

Search

Name	Volume ID	Type	Size	Snapshot	Created	Availability Zone	Alarm stat...	Attached Instances	Encrypti
-	vol-0bd94285d97ce0d2c	gp2	8 GiB	1...	2022/11/29 16:14 GMT+2	us-east-1d	No alarms	i-0f9c20cead33d0a9 (L1...	Not encr
-	vol-0955ed548626657c3	gp2	12 GiB	1...	2022/11/25 20:43 GMT+2	us-east-1c	No alarms	i-0fd83c2100169e884 (L1...	Not encr
-	vol-06bd4eb4dff5f6752	standard	1 GiB	-	2022/12/12 18:40 GMT+2	us-east-1c	No alarms	i-0eca643782c42a220 (fro...	Not encr
-	vol-0d423769147b38bcf	gp2	8 GiB	1...	2022/12/12 18:48 GMT+2	us-east-1c	No alarms	i-0eca643782c42a220 (fro...	Not encr

12. Review the 10-minute example. Explore the possibilities of creating your own domain and domain name for your site. Note, that Route 53 not free service. Alternatively you can free register the domain name *.PP.UA and use it.

Route 53 > Hosted zones > ams-test.com

Public **ams-test.com** Info Delete zone Test record Configure query logging

► Hosted zone details Edit hosted zone

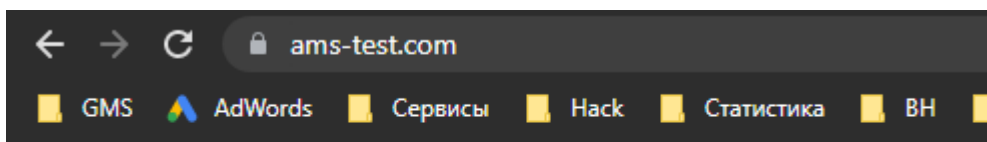
Records (3) DNSSEC signing Hosted zone tags (2)

Records (3) Info
Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.

Refresh Delete record Import zone file Create record

Filter records by property or value Type Routing policy Alias < 1 > Settings

<input type="checkbox"/>	Record name	Type	Routin...	Differ...	Value/Route traffic to
<input type="checkbox"/>	ams-test.com	NS	Simple	-	ns-1656.awsdns-15.co.uk. ns-183.awsdns-22.com. ns-1204.awsdns-22.org. ns-824.awsdns-39.net.
<input type="checkbox"/>	ams-test.com	SOA	Simple	-	ns-1656.awsdns-15.co.uk. awsdns-hostmaster.amazon.com. 1 7200 9...
<input type="checkbox"/>	manage.ams-test.com	A	Simple	-	153.127.48.205



test

13. Launch and configure a WordPress instance with Amazon Lightsail link



ams-WordPress-test

512 MB RAM, 1 vCPU, 20 GB SSD

WordPress

Frankfurt, Zone A (eu-central-1a)

Start

Status: **Stopping**

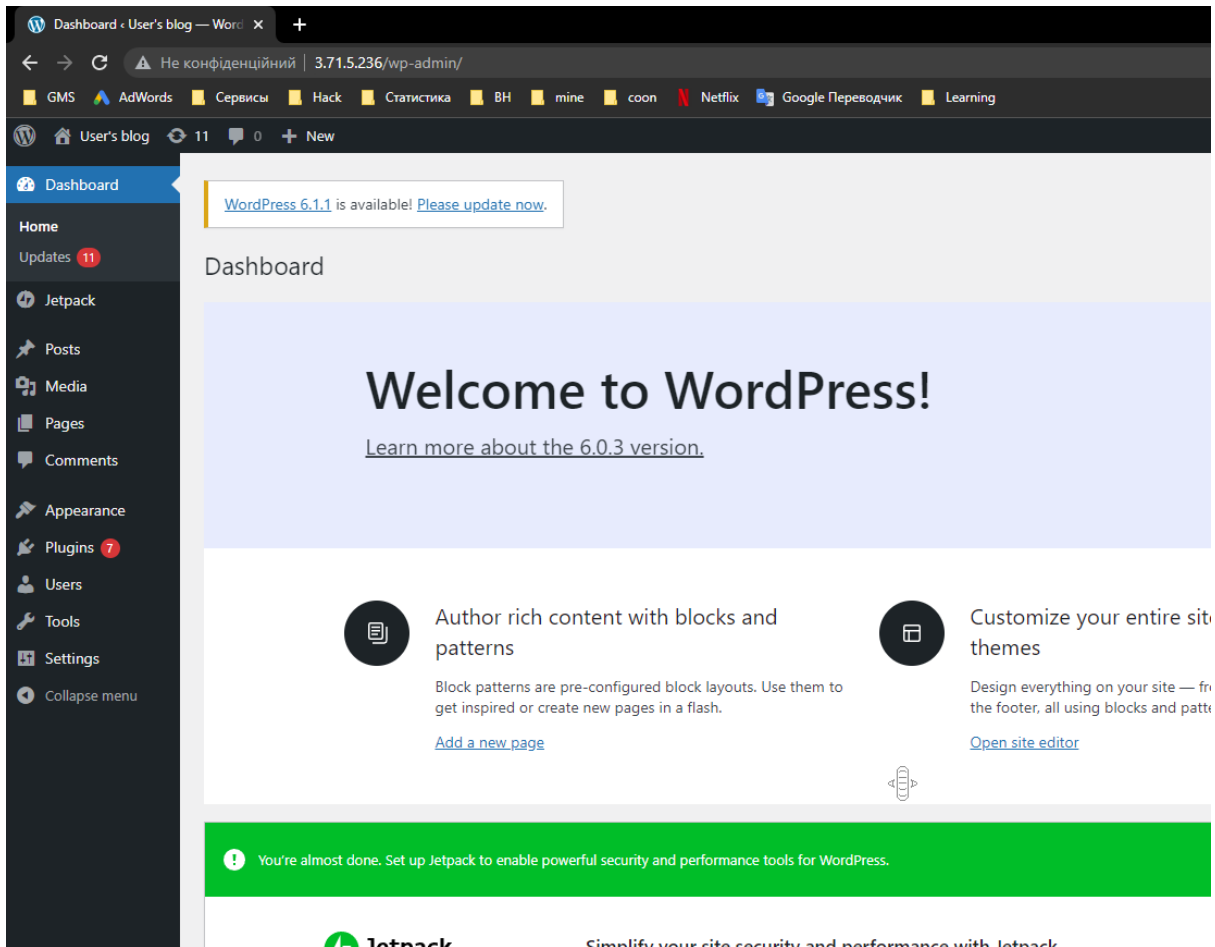
Public IP: **3.71.5.236**

Private IP: 172.26.8.177

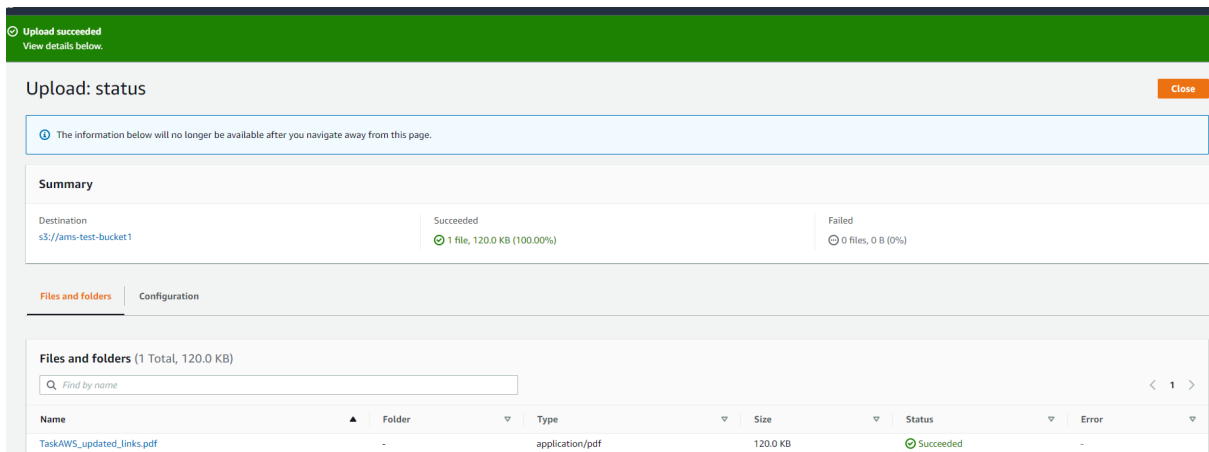
Public IPv6: 2a05:d014:428:f800:19dd:dedd:733:889d

[Learn more about IPv6](#)





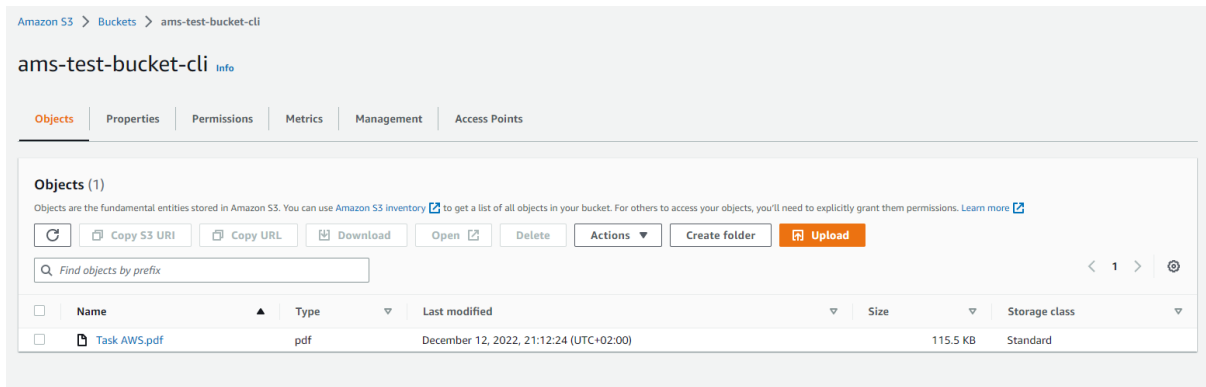
14. Review the 10-minute Store and Retrieve a File. Repeat, creating your own repository.



15. Review the 10-minute example Batch upload files to the cloud to Amazon S3 using the AWS CLI. Create a user AWS IAM, configure CLI AWS and upload any files to S3.

```
C:\Users\nasty>aws s3 mb s3://ams-test-bucket-cli
make_bucket: ams-test-bucket-cli

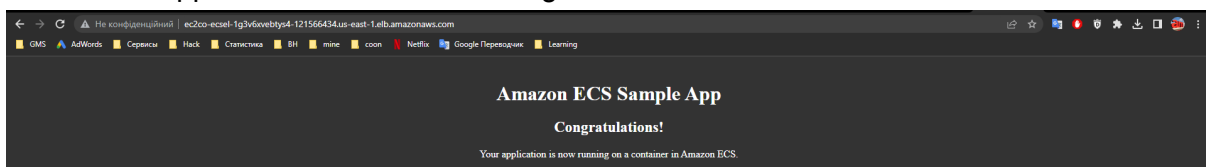
C:\Users\nasty>aws s3 cp "C:\Users\nasty\Desktop\L1\Tasks\AWS\Task AWS.pdf" s3://ams-test-bucket-cli/
upload: Desktop\L1\Tasks\AWS\Task AWS.pdf to s3://ams-test-bucket-cli/Task AWS.pdf
```



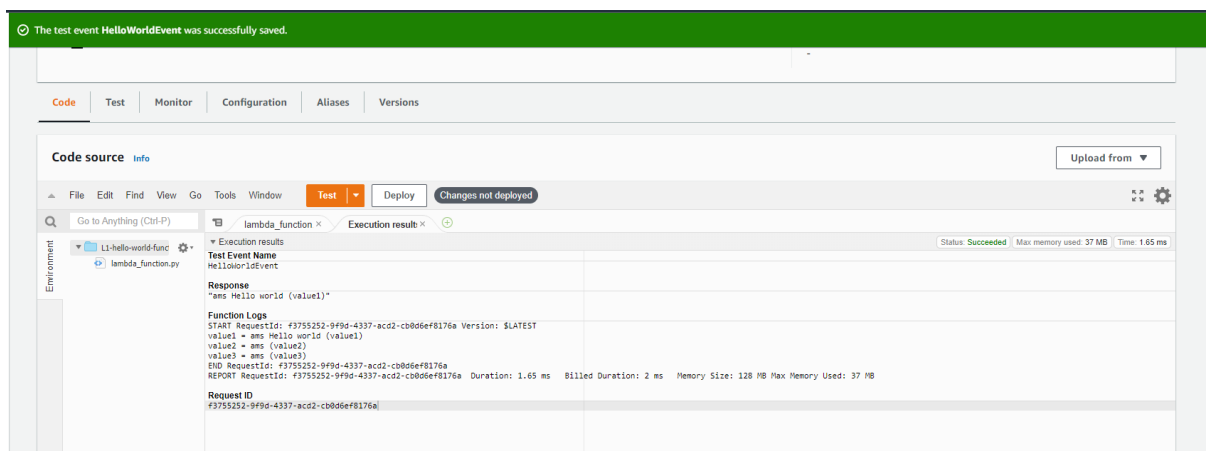
```
C:\Users\nasty>aws s3 cp s3://ams-test-bucket-cli/Task-AWS.pdf "C:\Users\nasty\Desktop\L1"
download: s3://ams-test-bucket-cli/Task-AWS.pdf to Desktop\L1\Task-AWS.pdf

C:\Users\nasty>aws s3 rm s3://ams-test-bucket-cli/Task-AWS.pdf
delete: s3://ams-test-bucket-cli/Task-AWS.pdf
```

16. Review the 10-minute example Deploy Docker Containers on Amazon Elastic Container Service (Amazon ECS). Repeat, create a cluster, and run the online demo application or better other application with custom settings.



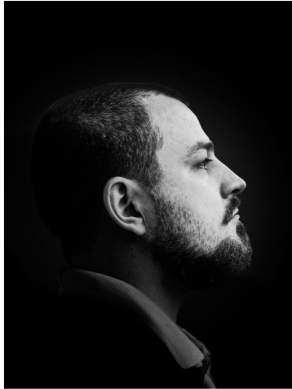
17. Run a Serverless "Hello, World!" with AWS Lambda.



18. Create a static website on Amazon S3, publicly available (link1 or link2 - using a custom domain registered with Route 53). Post on the page your own photo, the name of the educational program (EPAM Cloud&DevOps Fundamentals Autumn 2022), the list of AWS services with which the student worked within the educational program or earlier and the full list with links of completed labs (based on tutorials or qwiklabs). Provide the link to the website in your report and CV.

EPAM Cloud&DevOps Fundamentals Autumn 2022

Andriienko Maksym



AWS services

- EC2
- S3
- Route 53
- Amazon ECS
- IAM
- AWS Budgets
- Lambda
- AWS Fargate
- Elastic Load Balancing

<http://ams-test.pp.ua.s3-website.eu-north-1.amazonaws.com/>

<http://ams-test.pp.ua/>