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))
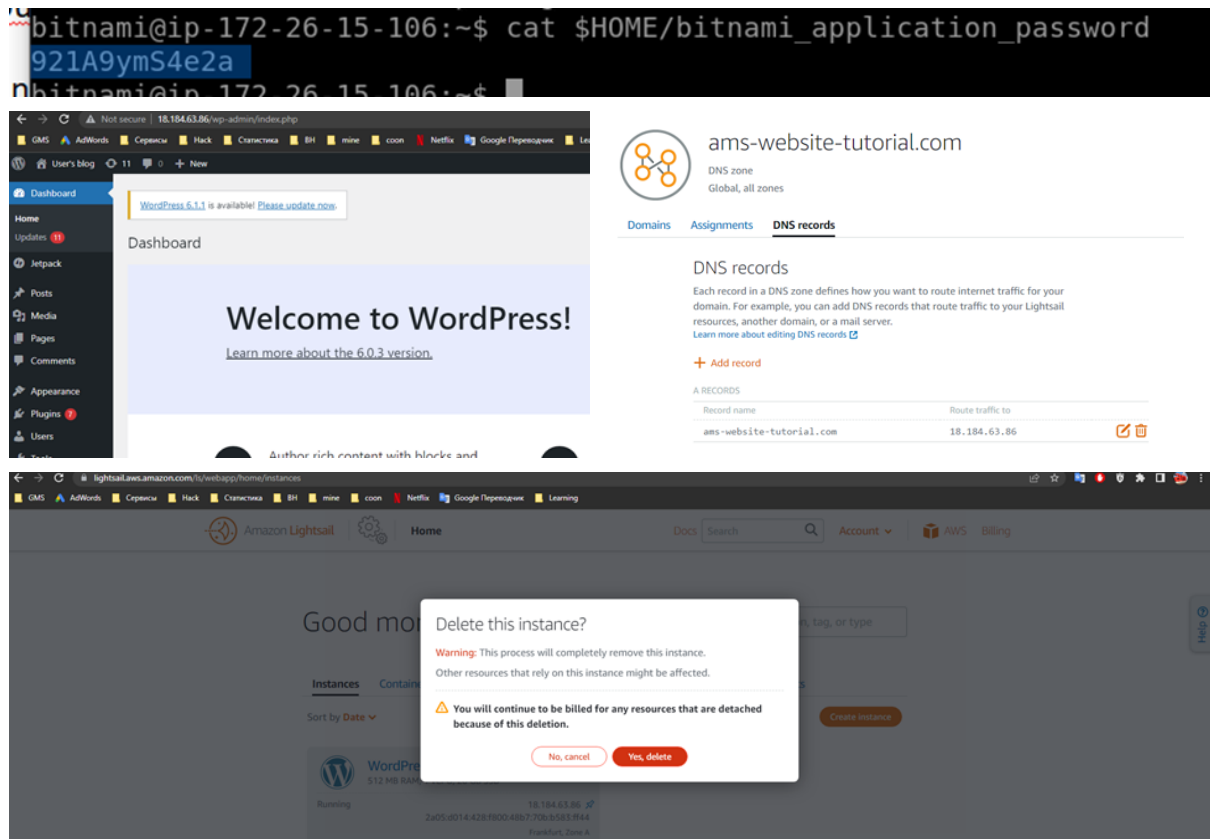
4. Register and pass courses on AWS Educate. Filter by checking Topic Cloud Computing and Foundational Level. Feel free to pass more.
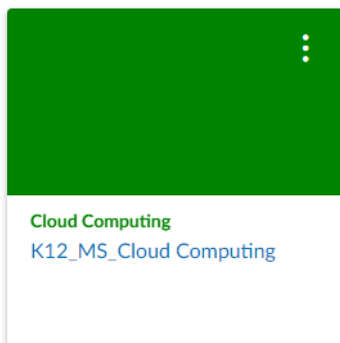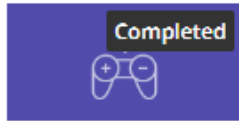

5. Register and pass free courses on AWS Skillbuilder. AWS Cloud Practitioner Essentials: Core Services, AWS Cloud Practitioner Essentials: Cloud Concepts. Try AWS Cloud Quest: Cloud Practitioner.
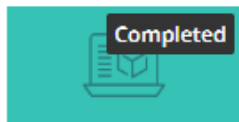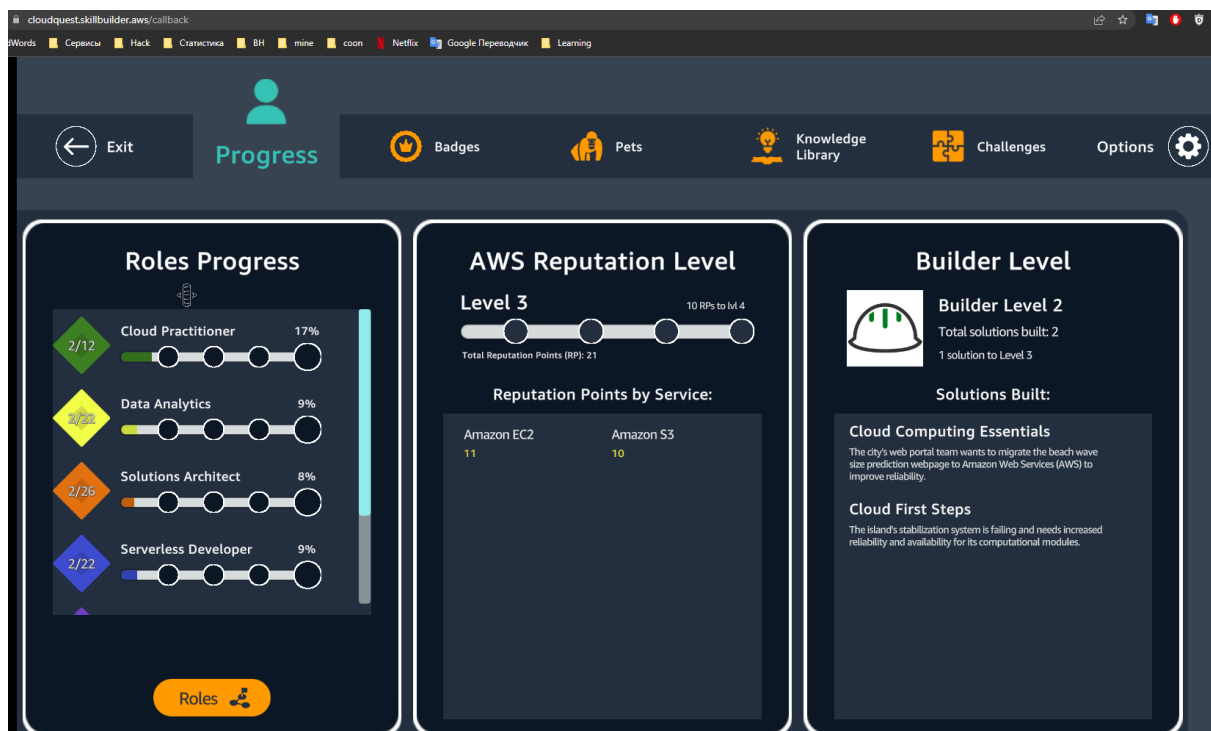
Learner dashboard

My courses

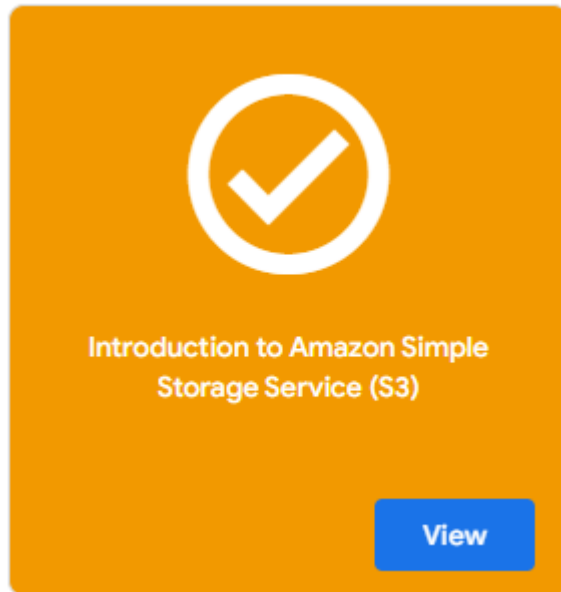**AWS Cloud Quest: Cloud Practitioner**
EN | Digital training

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

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cloudquest.skillbuilder.aws/callback

Words | Сервисы | Hack | Статистика | BH | mine | coon | Netflix | Google Переводчик | Learning

Exit   **Progress**   Badges   Pets   Knowledge Library   Challenges   Options

Roles Progress

2/12	Cloud Practitioner	17%
2/22	Data Analytics	9%
2/26	Solutions Architect	8%
2/22	Serverless Developer	9%

Roles

AWS Reputation Level

Level 3   10 RPs to lvl 4

Total Reputation Points (RP): 21

Reputation Points by Service:

Amazon EC2	Amazon S3
11	10

Builder Level

Builder Level 2
Total solutions built: 2
1 solution to Level 3

Solutions Built:

Cloud Computing Essentials
The city's web portal team wants to migrate the beach wave size prediction webpage to Amazon Web Services (AWS) to improve reliability.

Cloud First Steps
The island's stabilization system is failing and needs increased reliability and availability for its computational modules.

6. Pass free courses on Amazon qwiklabs

Introduction to Amazon Simple Storage Service (S3)

View

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.

	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-0f9c20ceaad33d0a9	⊖ Stopped ⊕⊖	t2.micro	–	No alarms +	us-east-1d	–	–	–

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

⊘ Successfully created snapshot snap-0fbeacf1c3632c4a0.

Snapshots (1)

Owned by me ▼   Q Search

	Name	Snapshot ID	Size	Description	Storage...	Snapshot status	Started	Progress	Encryption	KMS key ID
	–	snap-0fbeacf1c3632c4a0	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)

Q Search

	Name	Volume ID	Type	Size			Snapshot	Created	Availability Zone		Alarm stat...	Attached Instances		Encrypti
	–	vol-0bd94285d97ce0d2c	gp2	8 GiB	1...	–	snap-0999f89...	2022/11/29 16:14 GMT+2	us-east-1d	⊘ In	No alarms +	i-0f9c20ceaad33d0a9 (L1_...	⊘ OI	Not encr
	–	vol-0955ed548626657c3	gp2	12 GiB	1...	–	snap-0999f89...	2022/11/25 20:43 GMT+2	us-east-1c	⊘ In	No alarms +	i-0fd83c2100169e884 (L1_...	⊘ OI	Not encr
	–	vol-06bd4eb4dff5f6752	standard	1 GiB	–	–	–	2022/12/12 18:40 GMT+2	us-east-1c	⊘ In	No alarms +	i-0fd83c2100169e884 (L1_...	⊘ OI	Not encr

10. Launch the second instance from backup.

Instances (3) Info

Q Find instance by attribute or tag (case-sensitive)

	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-0f9c20ceaad33d0a9	⊖ 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.

	Name		Volume ID		Type		Size				Snapshot		Created		Availability Zone				Alarm stat...		Attached Instances				Encryp
☐	–		vol-0bd94285d97ce0d2c		gp2		8 GiB	1...	–		snap-0999f89...		2022/11/29 16:14 GMT+2		us-east-1d				No alarms +		i-0f9c20ceaad33d0a9 (L1_...				Not enc
☐	–		vol-0955ed548626657c3		gp2		12 GiB	1...	–		snap-0999f89...		2022/11/25 20:43 GMT+2		us-east-1c				No alarms +		i-0fd83c2100169e884 (L1_...				Not enc
☐	–		vol-06bd4eb4dff5f6752		standard		1 GiB	–	–	–			2022/12/12 18:40 GMT+2		us-east-1c				No alarms +		i-0eca643782c42a220 (fro...				Not enc
☐	–		vol-0d423769147b38bcf		gp2		8 GiB	1...	–		snap-0fbeacf1...		2022/12/12 18:48 GMT+2		us-east-1c				No alarms +		i-0eca643782c42a220 (fro...				Not enc

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.

13. Launch and configure a WordPress instance with Amazon Lightsail link
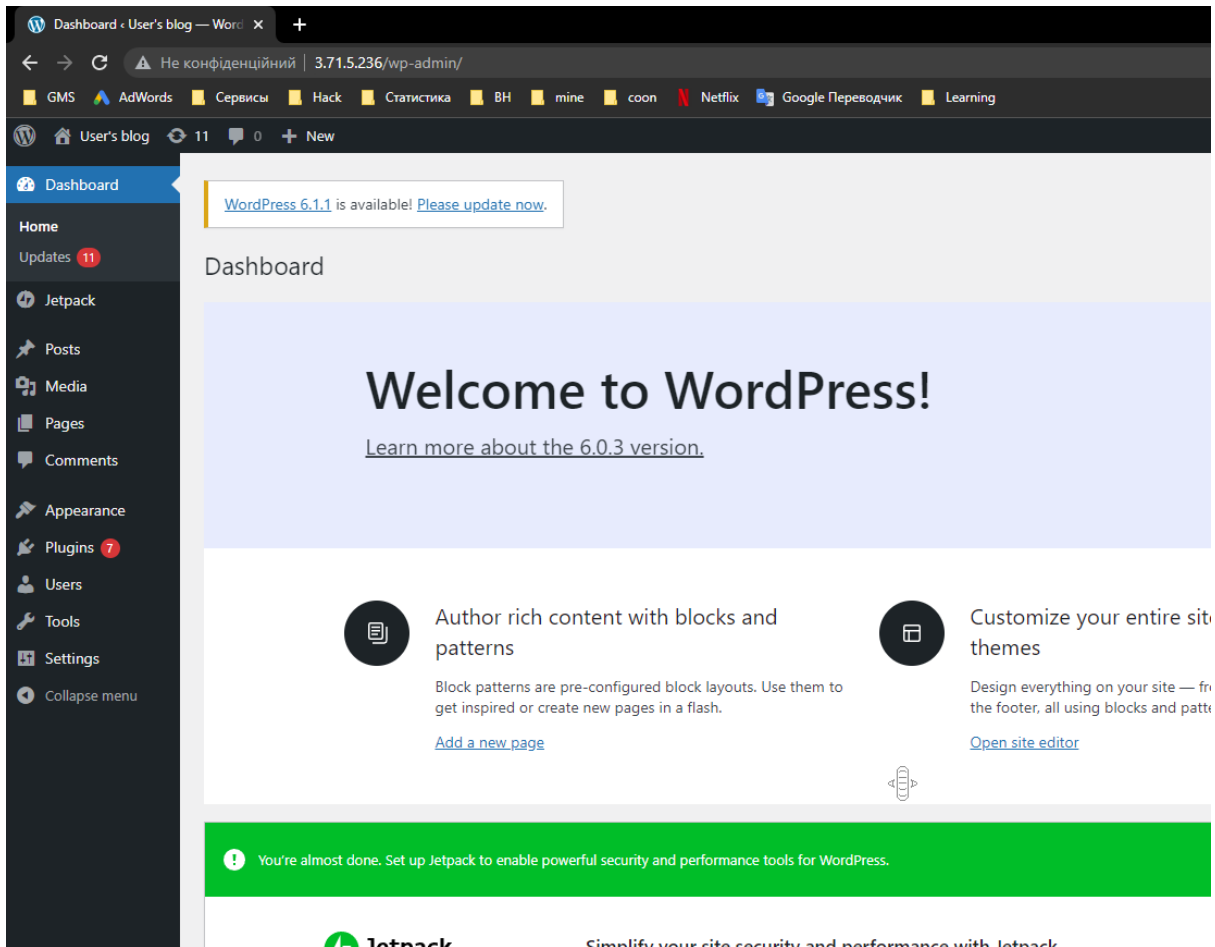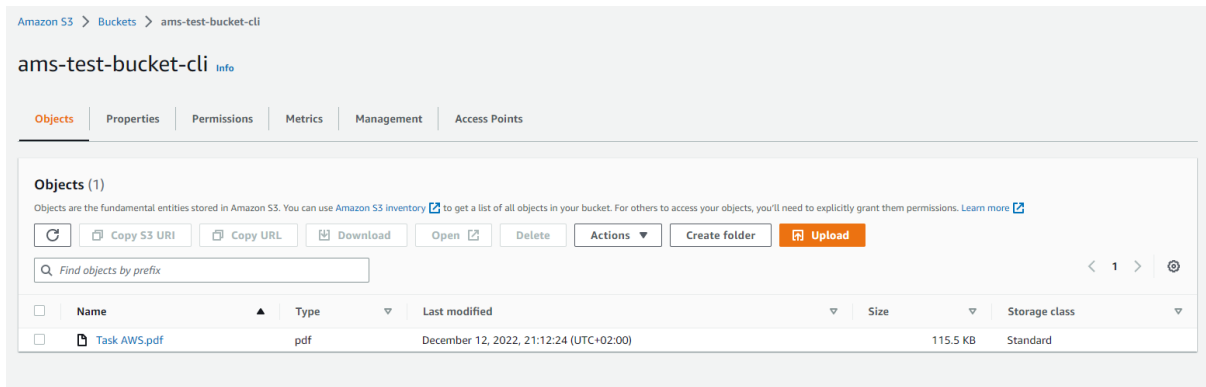
14. Review the 10-minute Store and Retrieve a File. Repeat, creating your own repository.
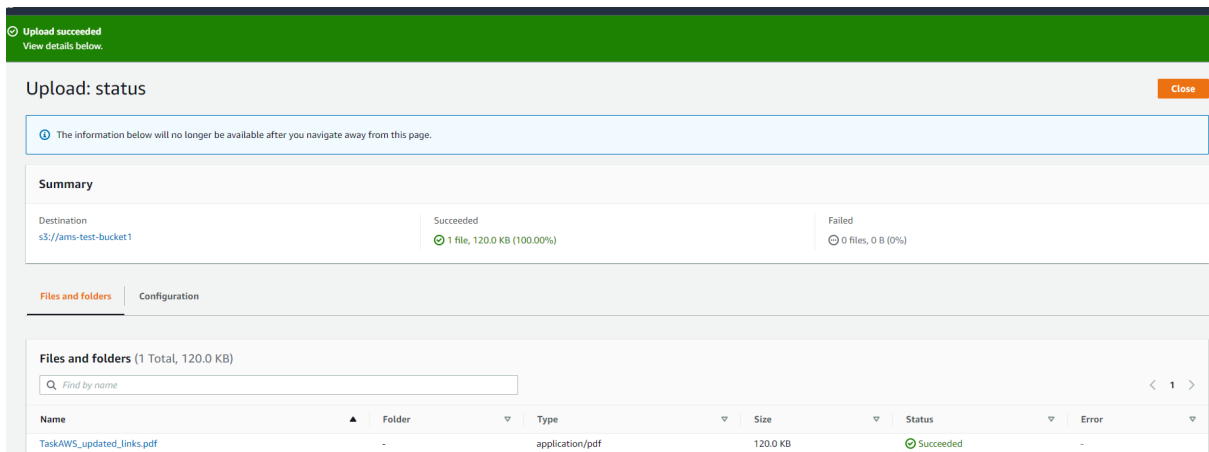
15. Review the 10-minute example Batch upload files to the cloud to Amazon S3 using the AWS CLI. Create a user AWS IAM, configure CLI AWS and upload any files to S3.

Amazon S3 > Buckets > ams-test-bucket-cli

ams-test-bucket-cli Info

| Objects | Properties | Permissions | Metrics | Management | Access Points |

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory ☑ to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more ☑

| C | Copy S3 URI | Copy URL | Download | Open ☑ | Delete | Actions ▼ | Create folder | Upload |

🔍 Find objects by prefix

< 1 > ⚙

|	Name	▲	Type	▽	Last modified	▽	Size	▽	Storage class	▽
☐	📄 Task AWS.pdf		pdf		December 12, 2022, 21:12:24 (UTC+02:00)		115.5 KB		Standard	

```
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.
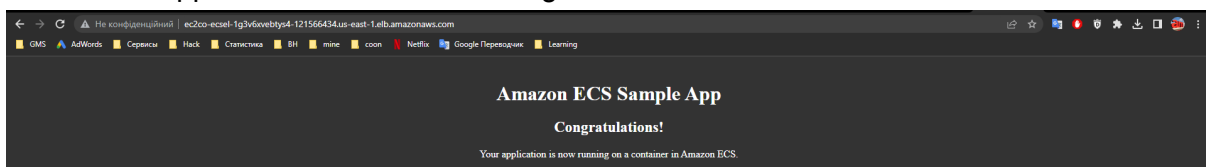
17. Run a Serverless "Hello, World!" with AWS Lambda.
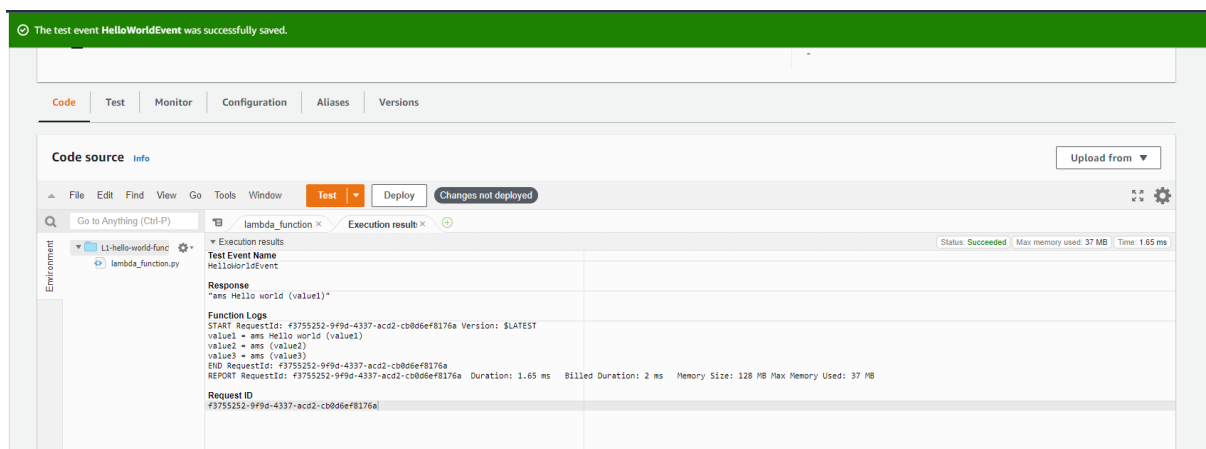
18. Create a static website on Amazon S3, publicly available (link1 or link2 - using a custom domain registered with Route 53). Post on the page your own photo, the name of the educational program (EPAM Cloud&DevOps Fundamentals Autumn 2022), the list of AWS services with which the student worked within 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.

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

https://ams-test.pp.ua/