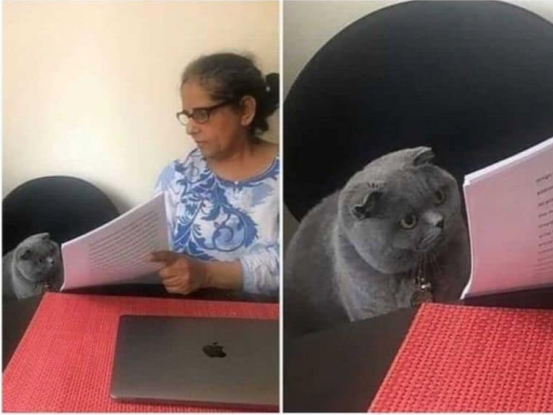


Session- 5

Deploy ON ECS

Oct 10, 2025

My manager showing me the code I wrote that took down the whole website



When you forget to **turn off** your AWS instance and receive your AWS bill



AGENDA

Brief Overview of AWS

To get our hands dirty → Deploy on EC2
→ Deploy on ECS

Why Remote/Cloud Computer??

Manage:

- ① Software / Library package Versions
- ② Compatibility
- ③ Replace hardware

5 2014

G.P.U -

4090

2.25 L

VRAM - 24 GB

701K

CPU -

7950X 3D

16 Core - 32 thr

RAM -

128 GB DDR5

1
6012

11 2014

A100 - 251K - 3 months

80 GB

Other Cloud Computing Platform

1. AWS - Amazon
2. GCP - Google
3. Azure - Microsoft
4. Digital Ocean
5. Heroku
6. IBM
7. Oracle

Aws provides → Raw infrostrure - EC2
Pre-Configured platform - ECS

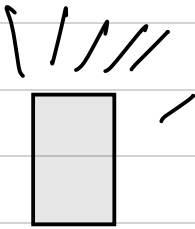
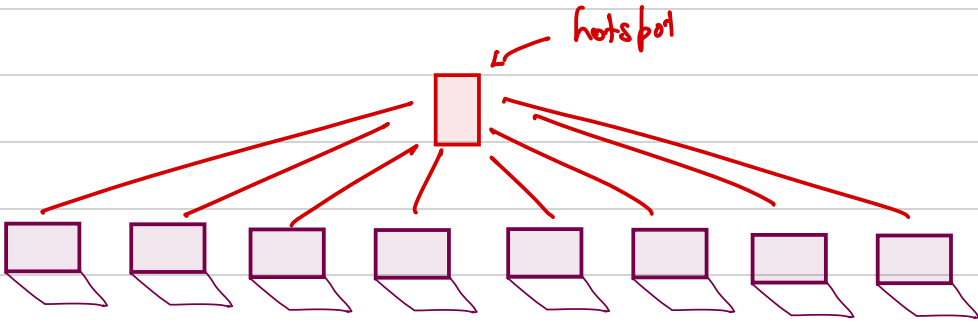
AWS Services

1. EC2 -> Elastic Compute Cloud (Blank/Un-configured online server)
2. S3 - (Simple Storage Service) - Online equivalent of google cloud.
3. ECS - Elastic container Service
4. ECR - Elastic Container Registry (AWS equivalent for docker hub)
5. SageMaker - Google-colab for Amazon, inside AWS
6. EMR - Distributed Computing - Apache spark
7. IAM - Controls access across entire AWS system (Identity and Management)

VPC



Internet gateway



EC2

① Rent server for a long time

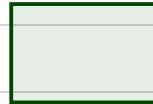
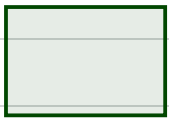
ECS

(i) Pay as you go
(ii) Autoscaling.

Spain → Ronda → Flat → 50k per month
Hotel → 5k per day

② Re-initialize diff
containers

Horizontal Autoscaling.



12 GB RAM

12 GB RAM

12 GB RAM

512 GB SSD

512 GB SSD

512 GB SSD

Horizontal autoscaling



12 GB RAM

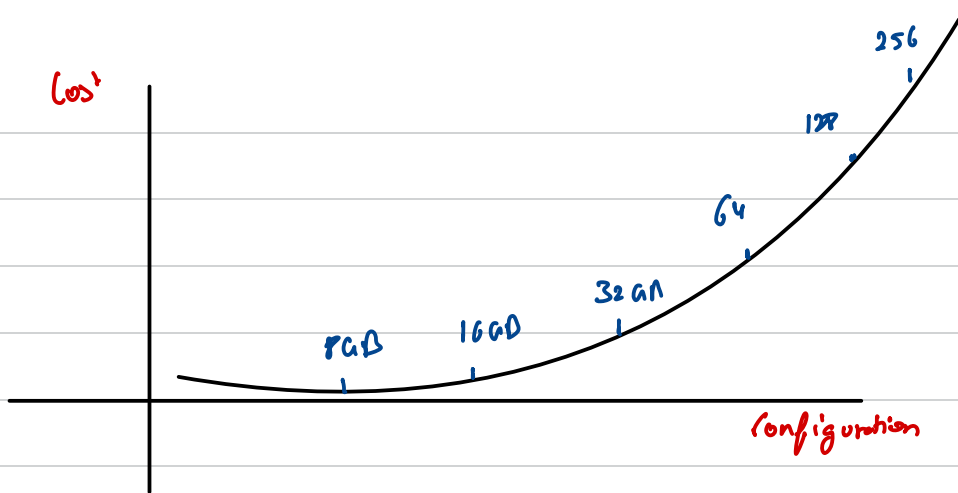
512 GB SSD



128 GB RAM

4 TB SSD

Vertical Scaling.

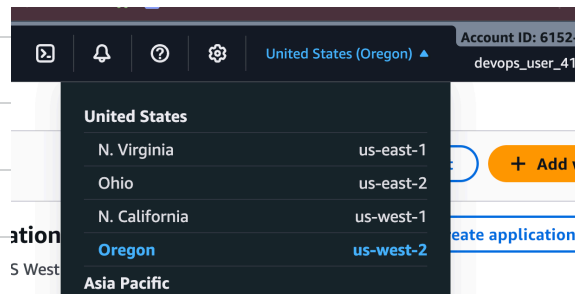


Steps for Model Deployment (Platform Agnostic)

1. Containerise the model.
2. Push container to registry.
3. Define specs of computer, where to run it (CPU/Memory, ports ,environment variables ,etc)
4. Setup Compute Platform (VM, EC2)
5. Deploy, and configure Network/Security .
6. Monitor.

Same steps in context of Amazon AWS

- ✓ 1. Authenticate our computer with AWS, using IAM.
- ✓ 2. Containerise and push our docker-image to ECR.
3. Create Cluster and Task-definition.
4. Deploy and configure security-group.



Which AWS service is responsible for managing containers and enabling developers to run applications without configuring the environment?

0 users have participated

A

Amazon Elastic Container Registry (Amazon ECR)

0%

B

Amazon Elastic Compute Cloud (Amazon EC2)

0%

✓C

Amazon Elastic Container Service (ECS)

0%

D

Amazon Simple Storage Service (Amazon S3)

0%

End Quiz Now

R

2

Rajesh Sharma

1/1

95.77

R

1

Rajesh Sharma

1/1

96.30

RT

3

Riddhi Tatke

1/1

95.33

4

✓A

Anoop

1/1

95.50

5

✓D

Dharani kondlapudi

1/1

92.43

6

✓L

lakshmi santhi

1/1

91.50

7

✓S

Saurabh Arunkumar Gupta

1/1

84.30

8

✓B

Amit Binjola

1/1

74.43

9

✓S

sanrita Chauhan*

1/1

71.57

10

✓V

Vinay Yelanadu

1/1

71.57

Based on all quizzes from the session

What does the term "repository" signify in the context of Amazon ECR?

0 users have participated

A

A server hosting web applications

0%

✓B

A storage location for Docker or OCI images

0%

C

A database for storing application data

0%

D

A collection of virtual machines

0%

End Quiz Now

R

2

Rajesh Sharma

2/2

193.20

A

1

Anoop

2/2

193.90

L

3

lakshmi santhi

2/2

183.66

4

✓R

Rahul Nath

2/2

183.47

5

✓D

Dharani kondlapudi

2/2

182.00

6

✓R

Riddhi Tatke

2/2

170.50

7

✓S

Saurabh Arunkumar Gupta

2/2

165.73

8

✓B

Amit Binjola

2/2

161.37

9

✓S

sanrita Chauhan*

2/2

159.30

10

✓V

Vinay Yelanadu

1/1

91.87

FQDN → ml.ecs-flask.com

What purpose does Amazon Elastic Container Registry (Amazon ECR) primarily serve in the AWS ecosystem?

0 users have participated

A

Managing serverless functions

0%

B

Configuring virtual machines

0%

C

Controlling access to S3 buckets

0%

✓D

Storing and managing container images securely

0%

End Quiz Now

R

2

Rajesh Sharma

3/3

285.43

A

1

Anoop

3/3

277.59

L

3

lakshmi santhi

3/3

277.59

4

✓D

Dharani kondlapudi

3/3

275.46

5

✓R

Rahul Nath

3/3

269.23

6

✓R

Riddhi Tatke

3/3

259.50

7

✓S

Saurabh Arunkumar Gupta

3/3

245.39

8

✓S

sanrita Chauhan*

3/3

242.67

9

✓B

Amit Binjola

3/3

236.70

10

✓P

Parnapalli Siva Kumar

2/2

188.73

What is the primary purpose of AWS Fargate in Amazon ECS?

0 users have participated

A

Managing S3 buckets

0%

B

Securing virtual machines

0%

✓C

Running containers without managing underlying infrastructure

0%

D

Configuring IAM roles

0%

End Quiz Now

L

2

lakshmi santhi

4/4

359.18

A

1

Anoop

4/4

382.56

DK

3

Dharani kondlap...

4/4

351.53

4

✓R

Rahul Nath

4/4

345.36

5

✓R

Riddhi Tatke

4/4

330.49

6

✓S

sanrita Chauhan*

4/4

319.20

7

✓B

Amit Binjola

4/4

316.70

8

✓R

Rajesh Sharma

3/4

283.86

9

✓P

Parnapalli Siva Kumar

3/4

280.20

10

✓V

Vinay Yelanadu

3/4

271.80

What is the primary function of a virtual private cloud (VPC) in AWS?

0 users have participated



- A

Storing and managing virtual machine images

0%
- B

Providing a dedicated virtual network for an AWS account

0%
- C

Optimizing database queries

0%
- D

Enabling high-performance computing

0%

[End Quiz Now](#)

Based on all quizzes from the session

