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CONTAINERS ON AWS

WITH ECR, ECS, EC2 & FARGATE

Presented by: Youssef Mnani and Kris Fernando

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SPEAKERS

Youssef Mnani

CLOUD ENGINEER

Kris Fernando

SOLUTIONS ARCHITECT

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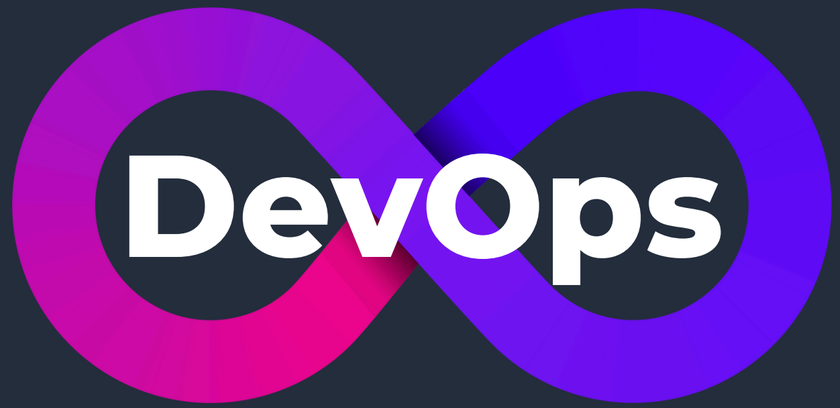
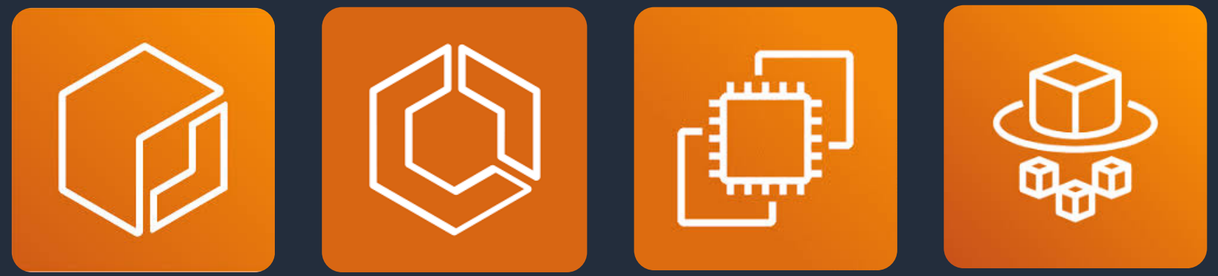
INTRODUCTION

- Introduction to DevOps
- Why use containers?
- Overview of AWS container services
  - Elastic Container Registry
  - Elastic Container Service
  - Fargate
  - Elastic Compute Cloud





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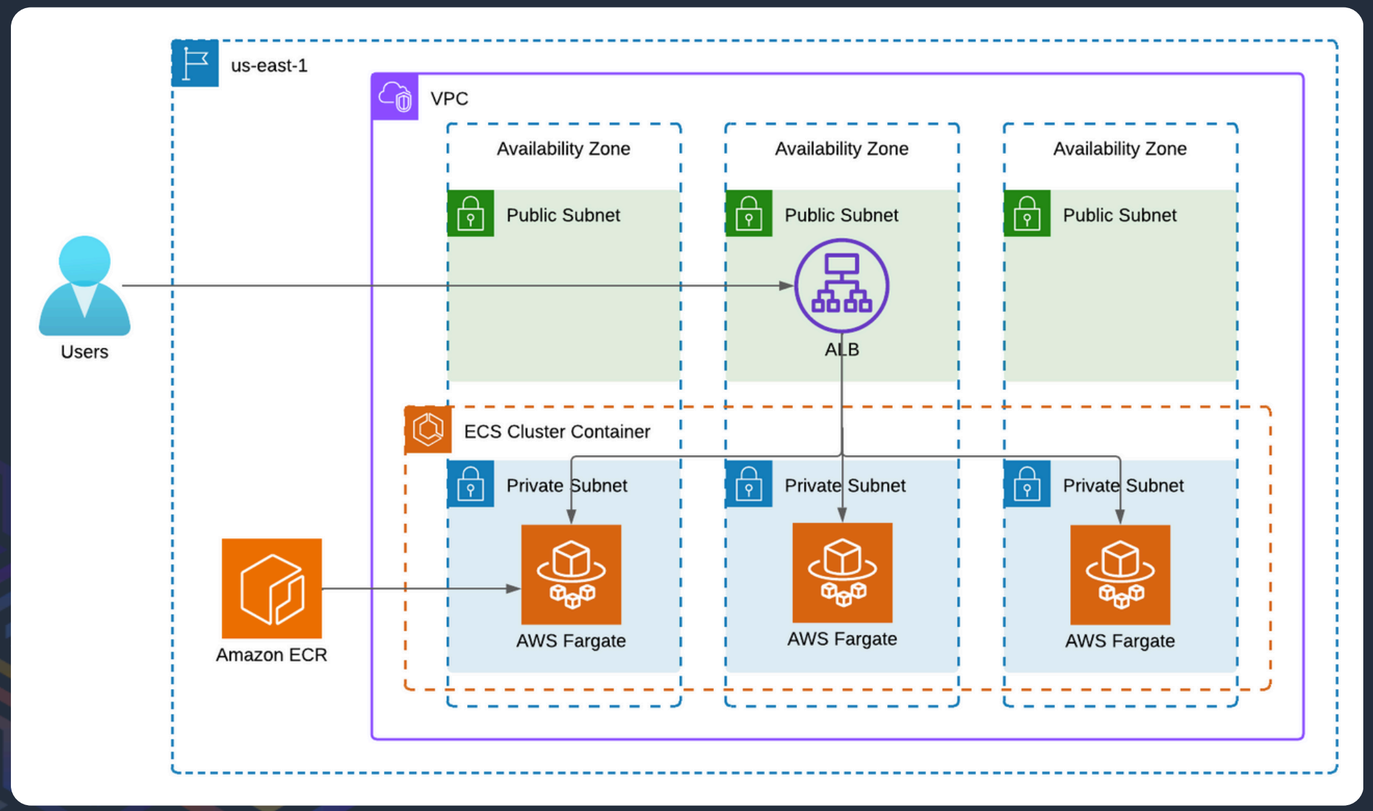
ARCHITECTURE



Design:

- Region
- Elastic Container Registry
- Virtual Private Cloud
- Elastic Load Balancer
- ECS Cluster
- Task Definition
- ECS Service and Task
- Fargate and/ or EC2

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DOCKER FILE

dockerfile

```dockerfile
FROM node:18-alpine
WORKDIR /app
COPY package*.json ./
RUN npm install
COPY . .
CMD ["npm", "start"]
EXPOSE 80
```

Container Image:

- Base Image
- Setup Working Directory
- Copy Application Dependencies
- Install Dependencies
- Copy Application Code
- Start Application
- Expose Port
- Image Blueprint

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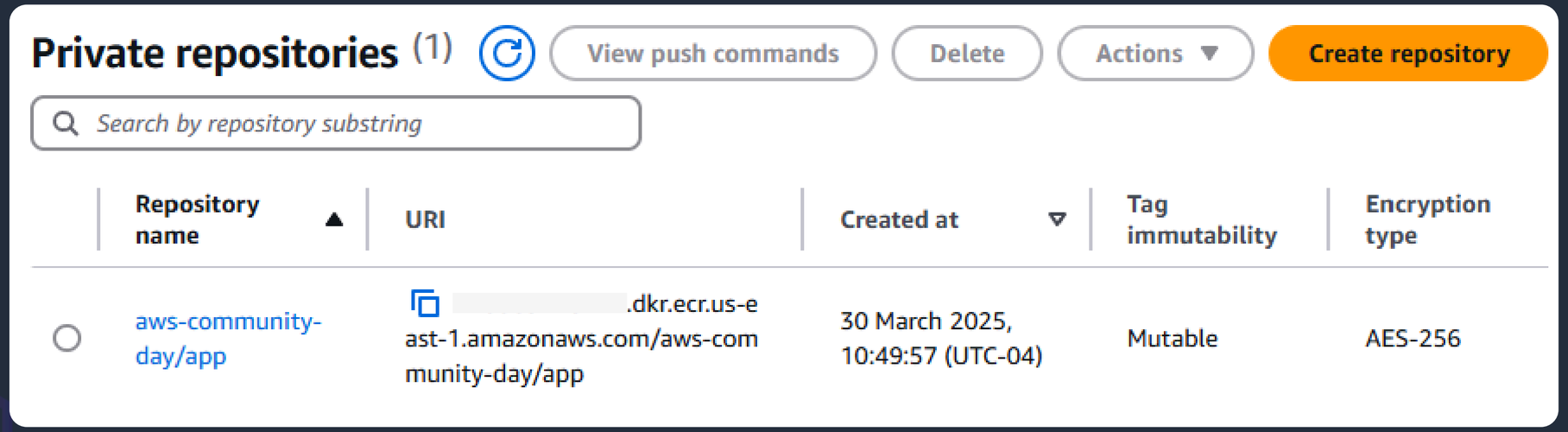
ELASTIC CONTAINER REGISTRY



Fully managed container registry service provided by AWS. It allows developers to store, manage, and deploy Docker container images. Essentially, it simplifies the process of working with containerized applications by providing a secure and scalable place to keep images.

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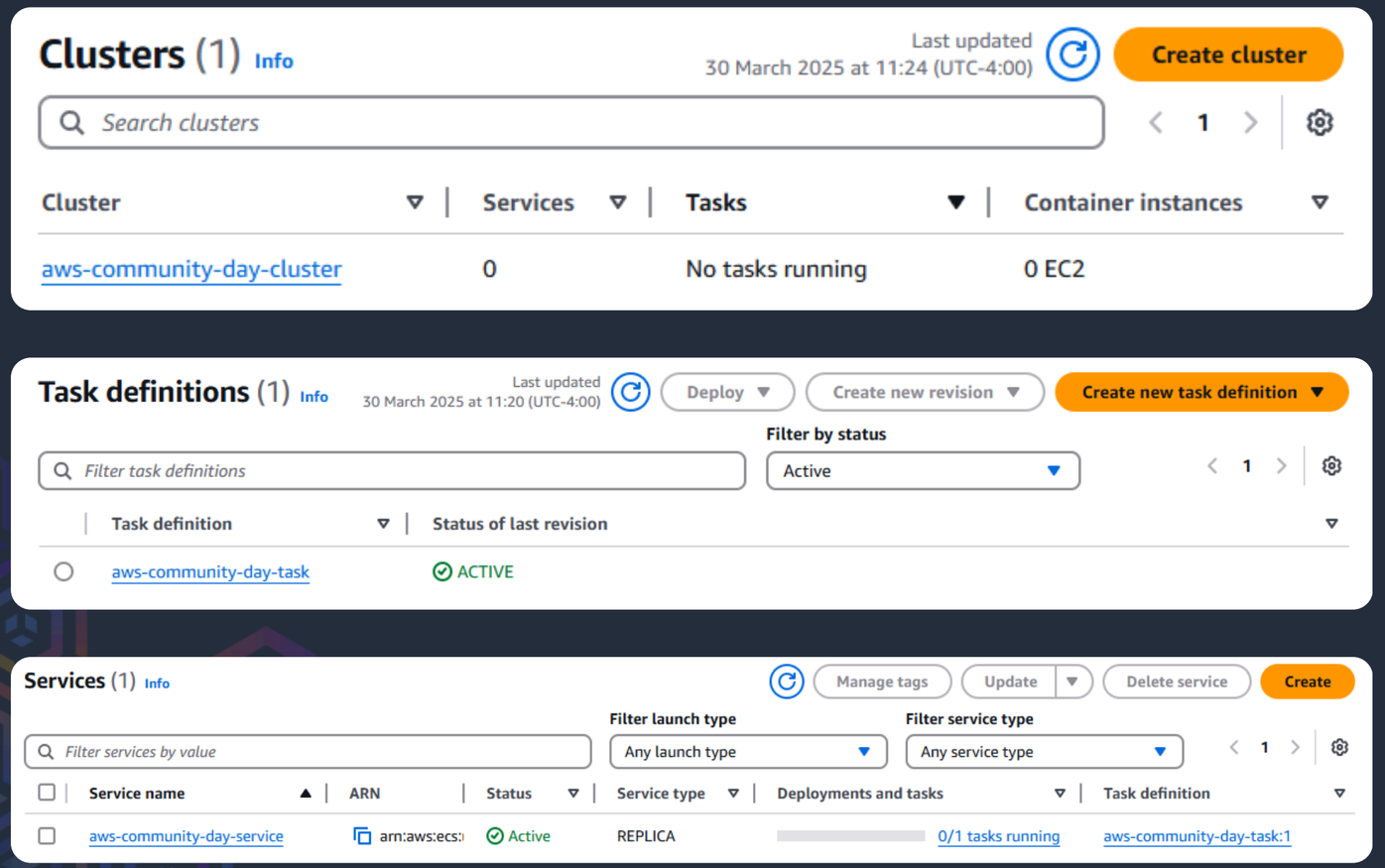
ELASTIC CONTAINER SERVICE



Fully managed container orchestration service that makes it easy to deploy, manage, and scale containerized applications. It eliminates the need to install and operate your own container orchestration software, allowing you to focus on building your applications.

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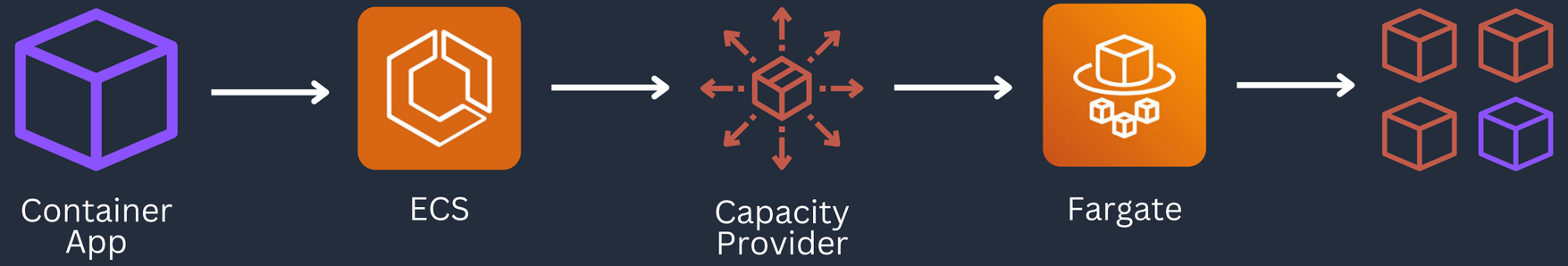
FARGATE

AWS Fargate is a serverless compute engine for containers that works with Amazon ECS. It removes the need to manage servers or clusters, allowing you to focus solely on designing and building applications. In essence, Fargate lets you run containers without worrying about the underlying infrastructure.



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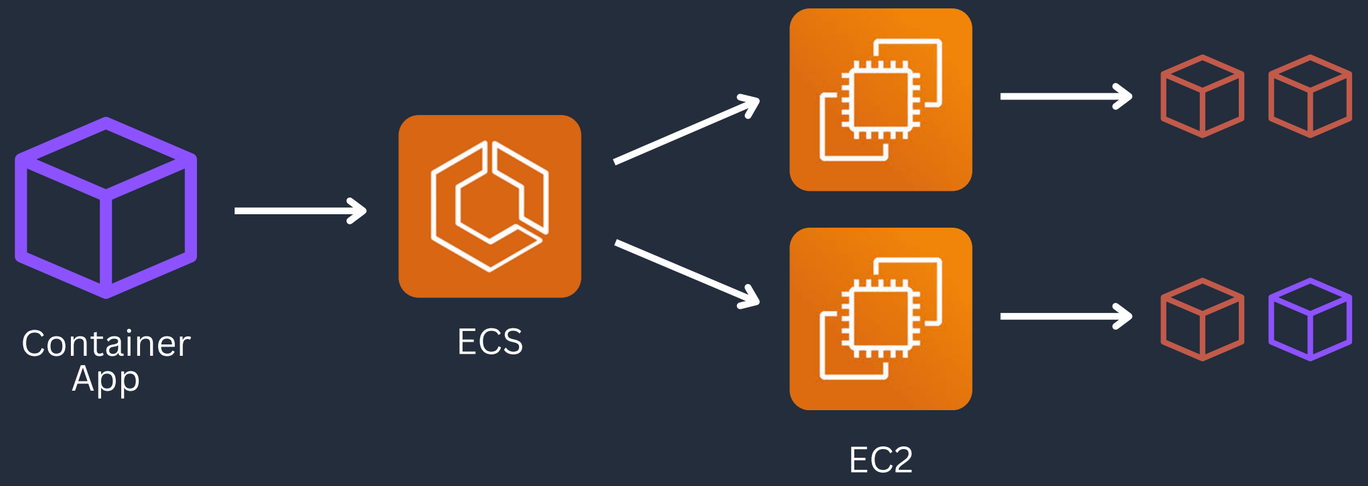
ELASTIC COMPUTE CLOUD

Amazon Elastic Compute Cloud (EC2) provides resizable compute capacity in the cloud, essentially offering virtual servers. It allows users to rent virtual machines, or "instances," to run applications, giving them control over their computing resources. In short, EC2 provides on demand, scalable computing in the cloud.



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DEMONSTRATION

DOCKER

ECR

ECS

FARGATE