

DOCKER :

- \* Software development platform to deploy apps.
- \* Apps are packaged in containers
- \* Scale containers up & down very quickly.
- \* Docker images are stored in docker repositories called 'Docker Hub'
- \* Also, images can be stored in private in Amazon ECR (Elastic Container Registry)

ECS → Elastic Container Service:

- \* Used to launch **docker containers** on AWS
- \* You must provision & **maintain the infrastructure** (EC2 Instances)

FARGATE :

- \* Launches **docker** containers on AWS
- \* No need to provision/maintain the infrastructure - simpler than ECS
- \* **Serverless** offering.

ECR: Elastic Container Registry:

- \* Private Docker Registry on AWS
- \* This is where you **store your docker images**, so they can be run by ECS or Fargate.

SERVERLESS SERVICES:

- \* Amazon S3
- \* Dynamo DB
- \* Fargate
- \* Lambda.

LAMBDA :

- \* Virtual Functions - no servers to be managed
- \* Limited by time - short executions
- \* Run on-demand
- \* Scaling is automated.
- \* Easy pricing
  - Pay per time and compute time.
  - Free tier of 1,000,000 reqs
  - **Pricing** based on **calls & duration**
  - Very cheap & popular.
- \* Integrated with many services
- \* Easy monitoring through AWS CloudWatch.

AMAZON API GATEWAY :

- \* Building a **serverless API**.
- \* Fully managed service for developers to easily create, publish & monitor APIs
- \* Serverless & Scalable.
- \* Supports Restful APIs & WebSocket APIs
- \* Expose lambda functions as HTTP APIs.

AWS BATCH :

- \* Fully managed batch processing at any scale.
- \* A "batch" job is a job with a start & end time.
- \* It dynamically launches EC2 instances.
- \* Defined as docker images & runs on ECS.

AMAZON LIGHTSAIL :

- \* simpler alternative to using EC2, RDS, ELB, EBS, Route 53...
- \* Great for people with **little cloud Experience**
- \* Has high availability but no auto-scaling