AWS: Hands on - EC2/EBS

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Agenda

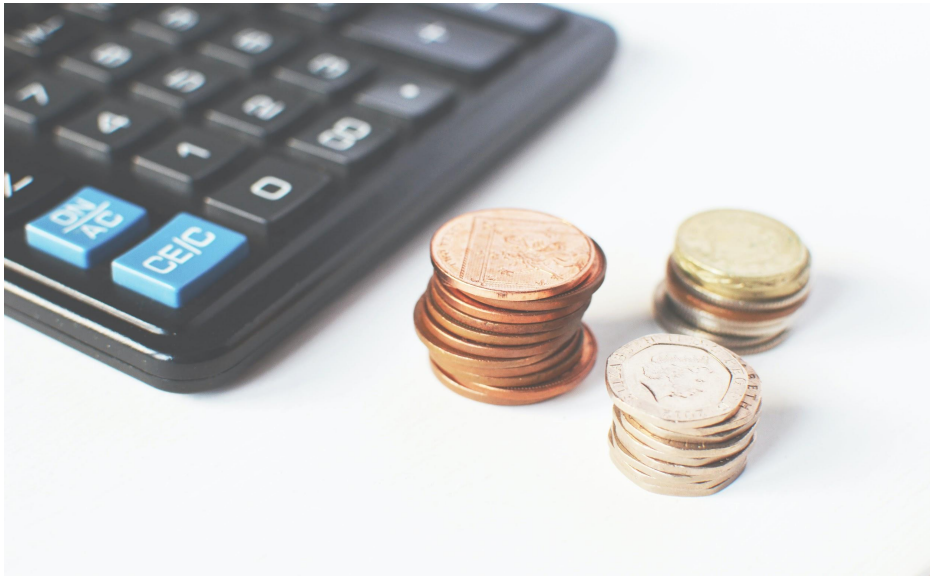
What we'll be covering today :

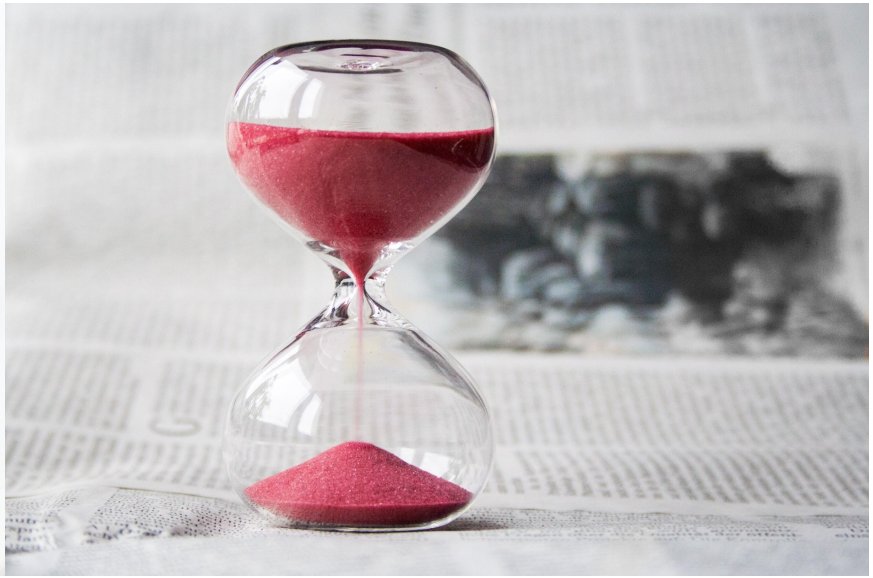
- What AWS is
- Basics of compute in AWS(**Elastic Compute Cloud**)

What I hope you'll learn:

- The basics of AWS
- Launch you own EC2 instances on AWS

Previously...

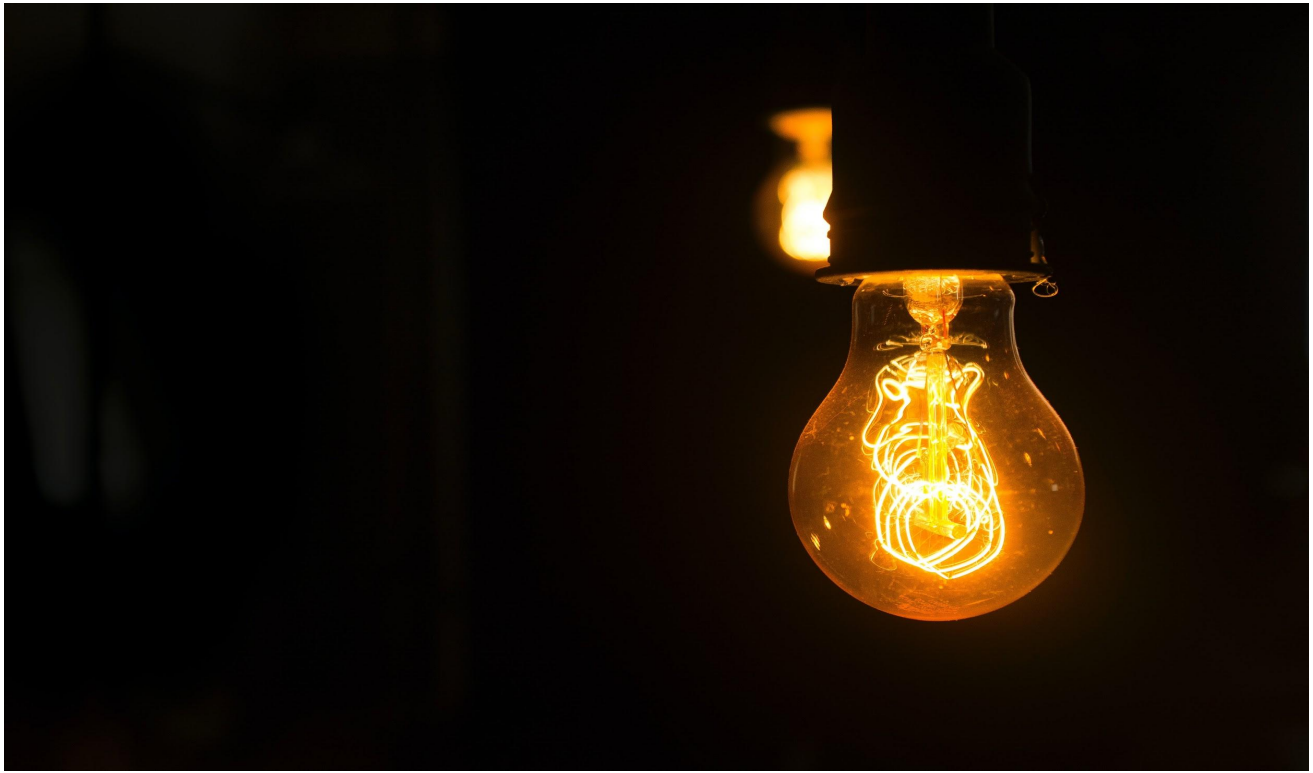


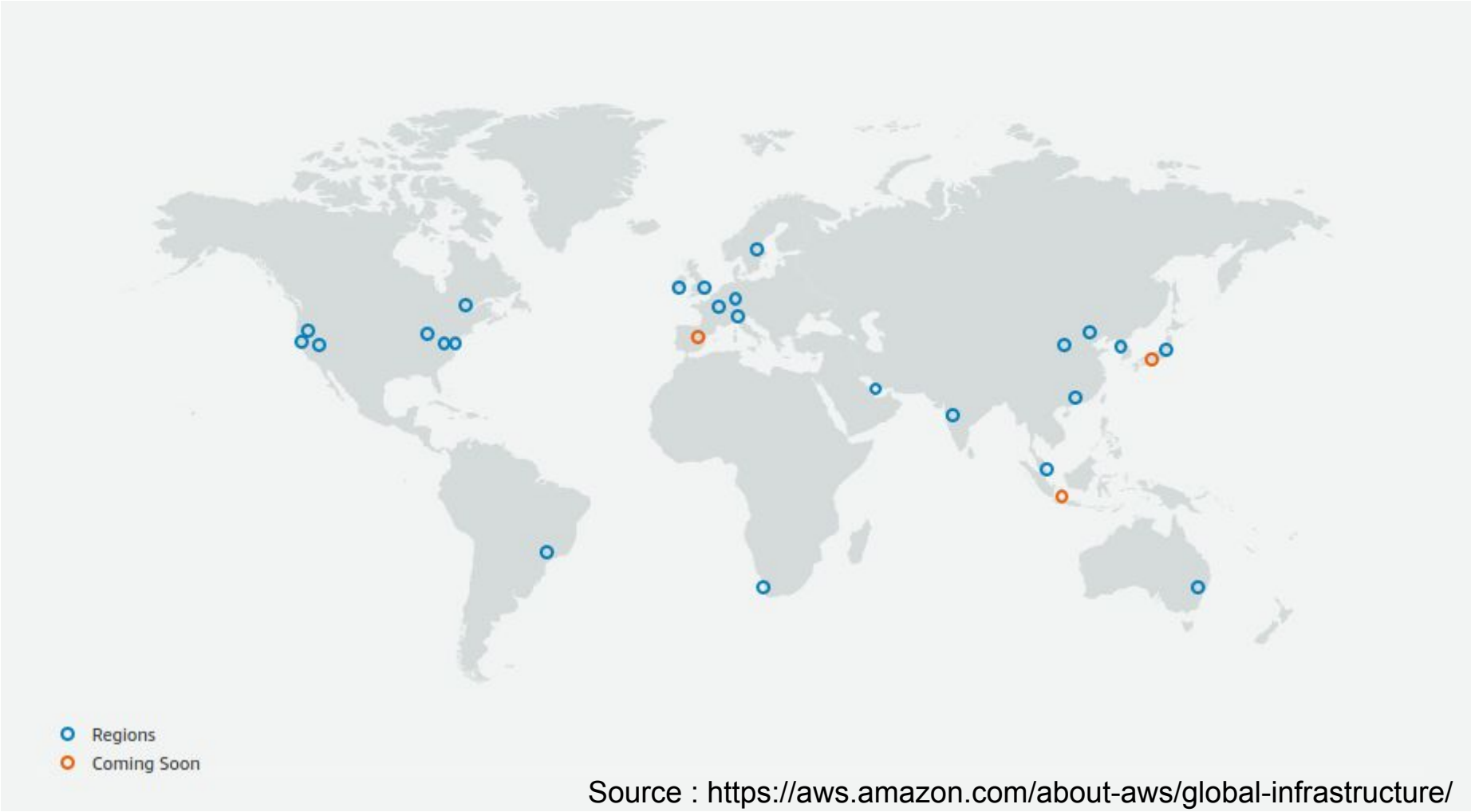


What is AWS?

- Provider of **on-demand IT infrastructure**
- Core services can be broadly classified into **Storage**, **Compute**, **Databases** and **tools** to manage all of the resources
- AWS manages the physical infrastructure
- Pay as you go pricing, no up-front costs, in most cases
- Present in multiple geographic locations

Today… IT infrastructure is kind of a utility





Source : https://aws.amazon.com/about-aws/global-infrastructure/

Elastic Compute Cloud (EC2)

- Infrastructure as a Service(**IaaS**)
- **Web Service that provides compute capacity on-demand**
- Allows you to rent virtual machines(instances) and block store(EBS)
- Applications
  - Web Server / Application Servers
  - DB Servers / In-Memory Caches
  - High Compute / GPU Workloads

Interfacing with EC2 or any AWS service

Three primary way :

- AWS Management Console (Web UI interface)
- AWS CLI
- AWS SDKs (available in many popular languages)

Third party tools - like terraform

Demo

Requirements :

- AWS Account
- PuTTy(for windows < 10 users)
- PuTTYgen(for windows < 10 users)
- Scp tool / FileZilla

Goal:

Launch a simple web application using EC2.

Elastic Block Store

- Easy to use, high performance block storage service
- EBS volumes are replicated within an Availability Zone (AZ)
- EBS enables you to increase storage without any disruption to your critical workloads
- You can choose between SSD and HDD storage
- EBS Snapshots are stored in S3(but you don’t see them listed)
- Snapshots are a great way to store instance state

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