Some Amazon Services and Features

Amazon (EC2) Elastic Cloud is a service that provides *secure* and *scalable compute capacity* in the AWS Cloud. It falls under the category of *(IaaS) Infrastructure as a Service.*

1 Dedicated Hosts *a whole physical server with an EC2 Instance* allocated to an organization

2 Dedicated Instances run on hardware *dedicated to a single user*. Other customers can not share the hardware.

3 On-Demand Instances useful for *short-term* needs, *unpredictable* workloads. No advance payment. No prior commitment.

4 Reserved Instances useful for *long-running* workloads and *predictable* usage.

Offer to choose from *NO upfront, Partial upfront, or All upfront payment*

5 Spot Instances Useful for *cost-sensitive* compute workloads. *No advance payment, no prior commitment.*

Amazon EC2 Auto-Scaling is a region-specific service used to maintain application availability and enables users to *automatically add or remove EC2 Instances* according to the compute workloads.

Horizontal Scaling increases or decreases the **NUMBER of** EC2 Instances

Vertical Scaling increases or decreases the **SIZE of** EC2 Instances, that is small > medium > large

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AWS Batch is a fully managed and regional *batch processing service* that allows *developers, scientists, and engineers* to *execute large amounts of batch computing workloads* on AWS.

AWS Elastic Beanstalk *is a service used to quickly deploy, scale, and manage applications in the AWS Cloud with automatic infrastructure management*. Think of *Jack and the Beanstalk*, because Jack threw tiny seeds which grew into Beanstalks that reached high into the sky. In AWS a Beanstalk application comprises components, including environments, versions, platforms, and environment configurations. So, a tiny seed grows into a large *wat cha ma call it*.

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AWS CloudFormations is a service that collects *AWS and third-party resources and manages them throughout their lifecycles by launching them together as a stack*. Think of a Template which is used to create, update, and delete an entire stack *as a single unit without managing resources individually*. One can reuse the template to *set the resources easily and repeatedly.*

AWS Lambda is a *serverless* computing service that allows users to *run code as functions without provisioning or managing servers*.

AWS SageMaker is a cloud service that allows developers to prepare, build, train, deploy and *manage machine learning models.*
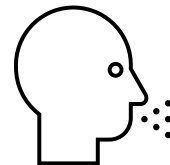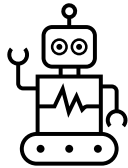
Amazon Polly is a cloud service used to convert *Text into Speech*

Amazon Transcribe convert *audio(speech) to text* using a Deep Learning process known as automatic speech recognition (ASR).

Amazon Translate is a service that does *language translation*