**Pricing Models for Amazon EC2**

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud.You can select from a variety of operating systems and resource configurations like memory, CPU, storage that is required for your application. Amazon EC2 enables you to obtain and configure capacity within minutes. You can use one or hundreds or even thousands of server instances simultaneously. Some of the considerations for estimating Amazon EC2 cost are Operating systems, Clock hours of server time, Pricing Model, Instance type and Number of instances.

**Pricing models for Amazon EC2:**

There are four pricing models for Amazon EC2 instances: On-Demand Instances, Reserved Instances, Spot Instances, and Dedicated Hosts.

1. **On-Demand Instances:**   
   In this model, based on the instances you choose, you pay for compute capacity per hour or per second (only for Linux Instances) and no upfront payments are needed. You can increase or decrease your compute capacity to meet the demands of your application and only pay for the instance you use.This model is suitable for developing/testing application with short-term or unpredictable workloads.On-Demand Instances is recommended for users who prefer low cost and flexible EC2 Instances without upfront payments or long-term commitments.
2. **Spot Instances:**   
   Amazon EC2 Spot Instances is unused EC2 capacity in the AWS cloud. Spot Instances are available at up to a 90% discount compared to On-Demand prices. The Spot price of Amazon EC2 spot Instances fluctuates periodically based on supply and demand.It supports both per hour and per second (only for Linux Instances) billing schemes . Applications that have flexible start and end times and users with urgent computing needs for large scale dynamic workload can choose Amazon EC2 spot Instances.
3. **3.Reserved Instances:**   
   Amazon EC2 Reserved Instances provide you with a discount up to 75% compared to On-Demand Instance pricing.It also provides capacity reservation when used in specific Availability Zone.For applications that have predictable workload, Reserved Instances can provide sufficient savings compared to On-Demand Instances.The predictability of usage ensures compute capacity is available when needed.Customers can commit to using EC2 over a 1- or 3-year term to reduce their total computing costs.
4. **Dedicated Hosts:**   
   A Dedicated Host is a physical EC2 server dedicated for your use.Dedicated Hosts can help you reduce costs by allowing you to use your existing server-bound software licenses like Windows server, SQL server etc and also helps you to meet the compliance requirements .Customers who choose Dedicated Hosts have to pay the On-Demand price for every hour the host is active in the account.It supports only per-hour billing and does not support per-second billing scheme.

**Per-second billing scheme:**   
Today, many customers use Amazon EC2 to do a lot of work in a short time, sometimes minutes or even seconds. In 2017, AWS announced per-second billing for usage of Linux instances across On-Demand, Reserved, and Spot Instances.The minimum unit of time that will be charged is a minute (60 seconds ), but after your first minute of time, it is charged for seconds. However if you start then stop an instance in 30 seconds, you will be charged the 60 seconds not 30.