Amazon EC 2:

* EC 2 is the Elastic compute cloud,which is a (IAAS) application,It works as a server to the application
* It mainly consists in the capability of:

1. Renting Virtual Machines
2. Storing data on virtual drives(EBS::Elastic Block Store)
3. Distributing load across machines(ELB::Elastic Load Balancer)

* Scaling the services using an auto-scaling group(ASG)

EC 2 Sizing & Configuration Options:

* We can operate the server in any kind of O.S(i.e : Windows,Linux,Mac OS)
* We have to select the computing power such as (cores,RAM), the storage space and the networking speed

EC2 User Data:

* It is possible to bootstrap our instances using an EC2 user data
* Bootstrapping means launching commands when a machine starts
* that script is only run once at the instance first start
* EC2 user data is used to automate boot tasks such as:

1. Installing Updates
2. Installing Software
3. Downloading Common Files from the Internet

* The EC2 User Data Script runs with the root user
* There are 370 Instances available in the AWS MARKET

EC2 Instance Types:

There are 4 core Instance Types:

1. General Purpose:

* Great for a diversity of work loads such as Web server(or) Code repositories.
* Balance b/w i) Compute ii)Memory iii)Networking

Type of General Purpose Instances are:

i) Mac ii) T4g iii)T3 iv)T3a v)T2

1. Compute Optimzed:

* Great for compute intensive tasks that require high Performance Processors
* This type of Processors are used for Batch Processing Workloads, Media transcoding, High Performance computing, web servers , Scientific Modeling & Machine Learning, Dedicated Gaming Servers

Few of Compute Optimized Instances are:

i)C6g ii)C6gn iii)C5 iv)C5a v)Hpc6a

1. Memory Optimized :

* Fast Performance for Work loads that process large data sets in memory
* It is used in High Performance relational/non relational databases, Distributed web scale cache stores, In –memory databases optimized for B.I
* Applications performing real-time processing of big unstructured data

Few of Memory Optimized Instances are:

i) R6a ii) R6g iii) R6i iv) R5a v) X2iedn

1. Storage Optimized:

* Great for storage –intensive tasks that require high, sequential read & write access to large data sets on local storage
* It is used in High frequency online transaction processing(OLTP)Systems, Relational& NO-SQL databases, Cache for in-memory database(Redis), Data ware housing applications, Distributed File systems

Few of Storage Optimized Instances are:

i) Im4gn ii) Is4gen iii) I4i iv) I3 v) D3en