

Assignment - 7. - LP-II.

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- Problem Statement :

Case study on Amazon EC2 & learn about Amazon EC2 with web services.

- Learning Objectives :

i) Amazon EC2 web services.

ii) Understand how one can use amazon web services provided by EC2 platform.

- Learning Outcomes :

i) Understand how one can use amazon services provided by EC2 platform.

- Concept Related Theory :

Amazon EC2 (Elastic cloud compute) is a part of amazon.com's cloud computing platform, AWS, that allows users to rent virtual computers on which to run their own computers applications. EC2 is the service advertised as providing a large computing capacity (potentially many servers) much faster & cheaper than building a physical server farm.

EC2 allows scalable deployment of applications by providing a web service through which a user can boot an amazon machine image to create a VM (instance) combining the desired



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software. A user can create any software desired, launch or terminate server instance paying by hour for active sessions.

It is an infrastructure as a service (IaaS).

Steps to use EC2 are:

- Sign up for amazon EC2
- Create a Key pair
- Launch an EC2 instance
- Connect to the instance
- Customize the instance
- Terminate the instance & delete the volume.

- EC2 Instances:

Instance is a virtual connection environment with a web interface. It can create & configured.

- Types of instances.

- i) Free tiers: Use AWS instance for upto 12 months.
- ii) On-demand: Setup & tear down according to our need.
- iii) Reserved: pay up front for servers with 1 or 3 year commitment.
- iv) SPOT: Bid for unused capacity but no guarantee when it's terminated.

- Advantages

- i) EC2 is controlled by API's, developers can

commission any no. of server instances at same time to increase or decrease capacity
ii) EC2 allows for complete control of instance which makes - operation as simple as if the machine were in house.

Challenges :

- i) Resource utilization : developers must manage the no. of instances they have, to avoid costly large, long-running instances.
- ii) Security : developers must make sure that public facing instances are running securely.

Conclusion :

We have successfully performed a case-study on Amazon EC2, based on cloud computing.

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