Instructor Notes:

Add instructor notes here.

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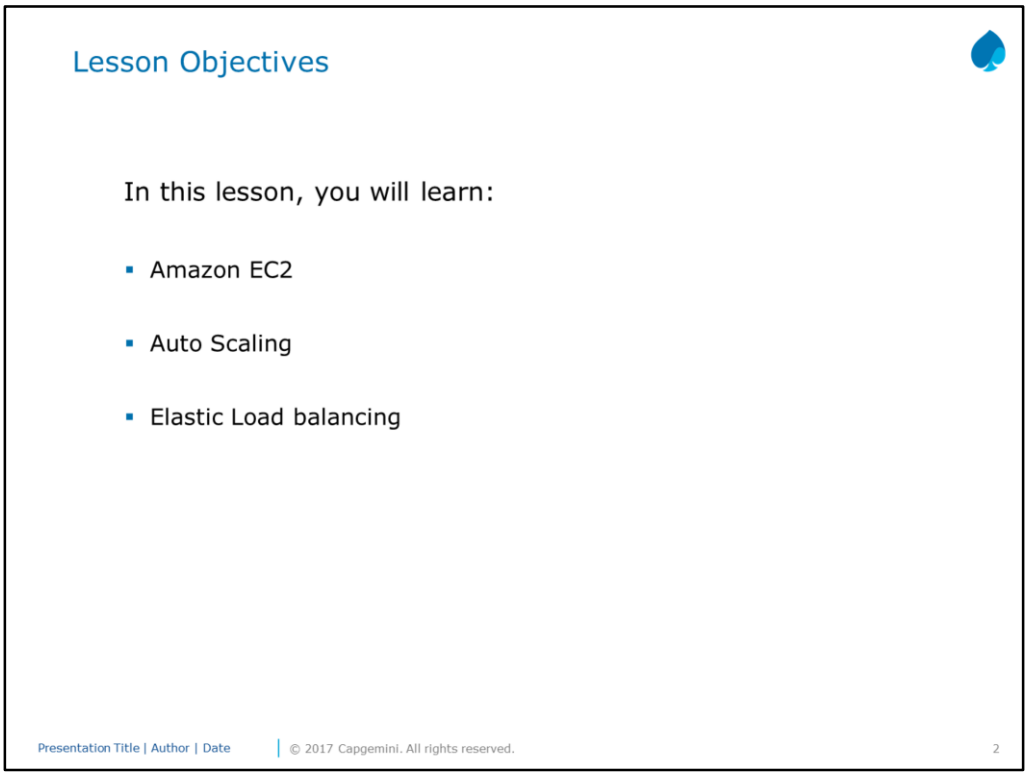
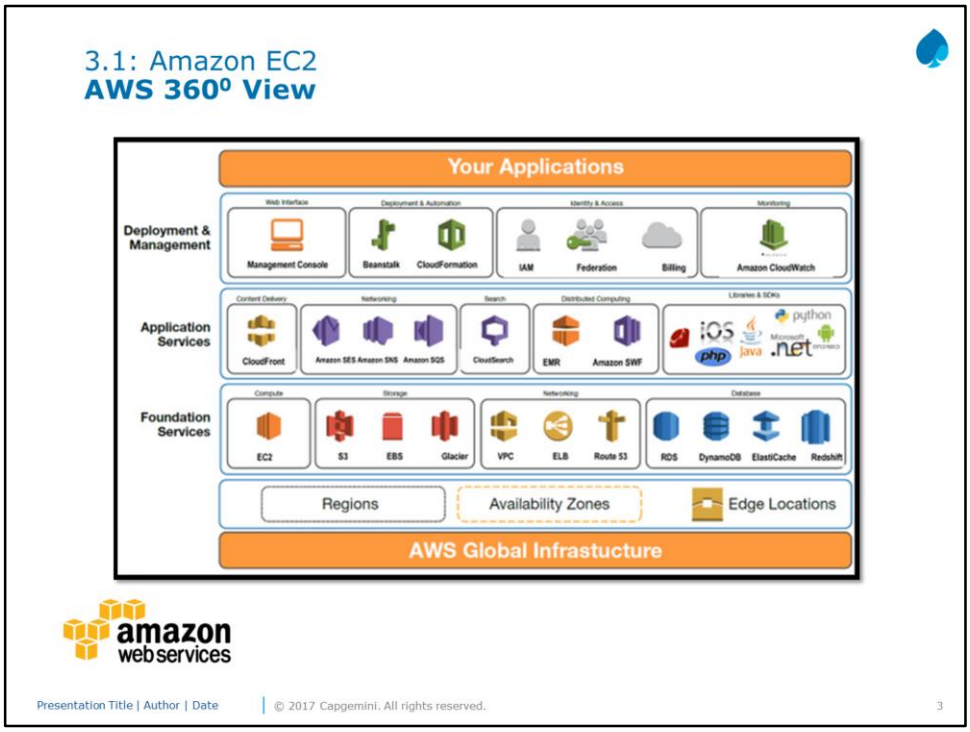
This lesson is to give an Introduction on Java Server Pages



Amazon EC2
Auto Scaling
Elastic Load balancing

Instructor Notes:



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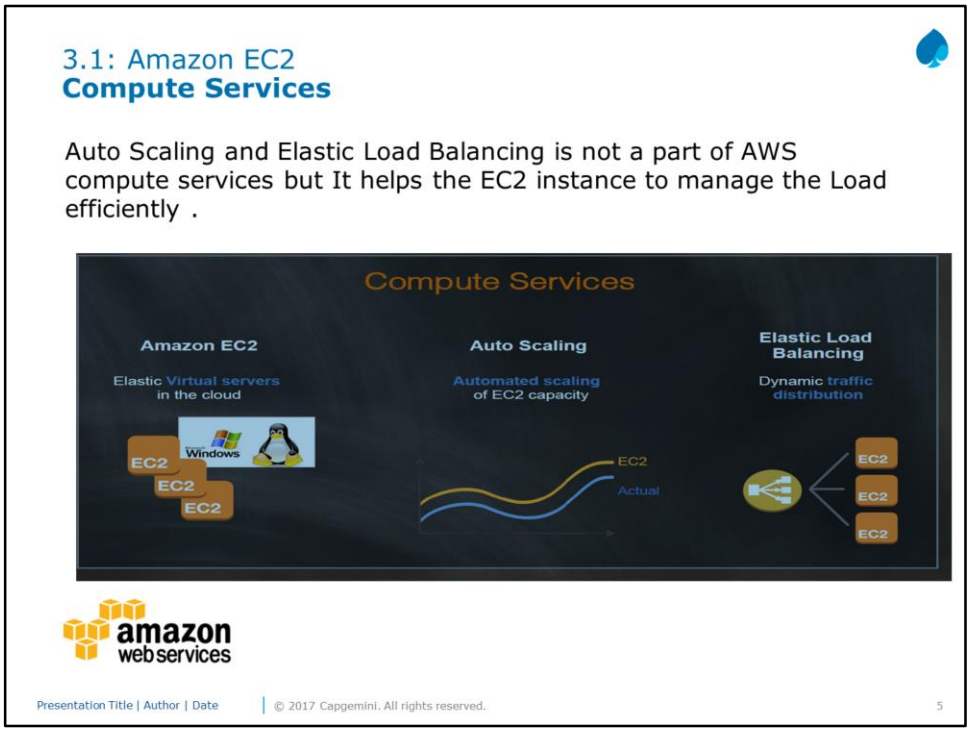

Auto Scaling and Elastic Load Balancing is not a part of AWS compute services but It helps the EC2 instance to manage the Load efficiently .

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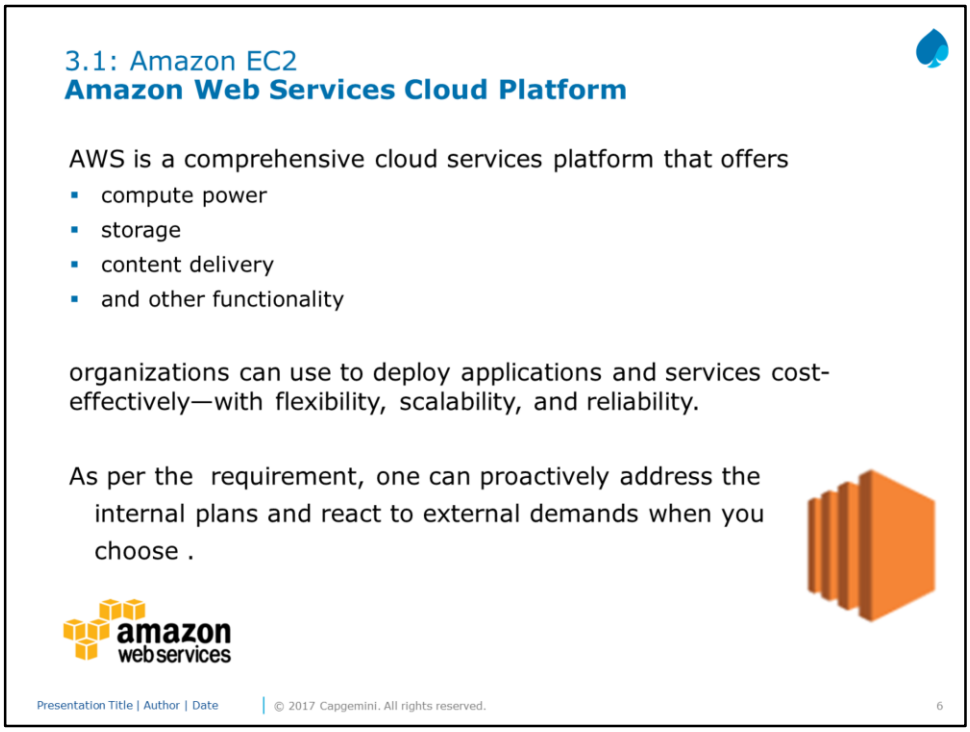

AWS is a comprehensive cloud services platform that offers compute power, storage, content delivery, and other functionality that organizations can use to deploy applications and services cost-effectively—with flexibility, scalability, and reliability. AWS self-service means that you can proactively address your internal plans and react to external demands when you choose

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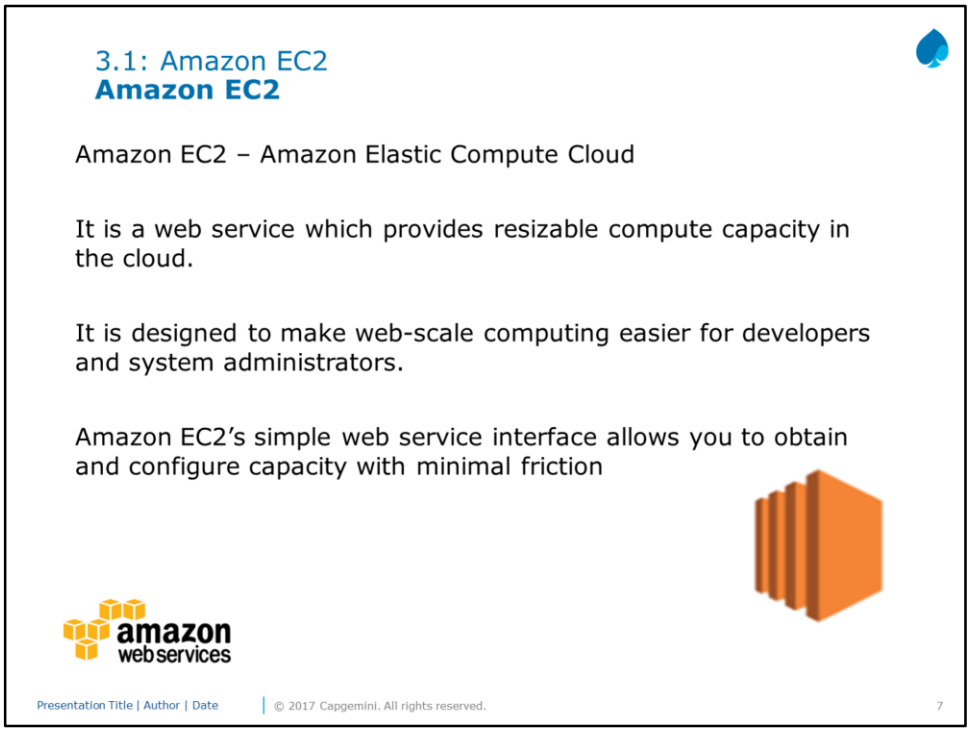

(Amazon EC2) is a web service that provides resizable compute capacity in the cloud. It is designed to make web-scale computing easier for developers and system administrators.
Amazon EC2's simple web service interface allows you to obtain and configure capacity with minimal friction. It provides you with complete control of your computing resources and lets you run on Amazon's proven computing environment. Amazon EC2 reduces the time required to obtain and boot new server instances to minutes, allowing you to quickly scale capacity, both up and down, as your computing requirements change. Amazon EC2 changes the economics of computing by allowing you to pay only for capacity that you actually use. Amazon EC2 provides developers and system administrators the tools to build failure resilient applications and isolate themselves from common failure scenarios.

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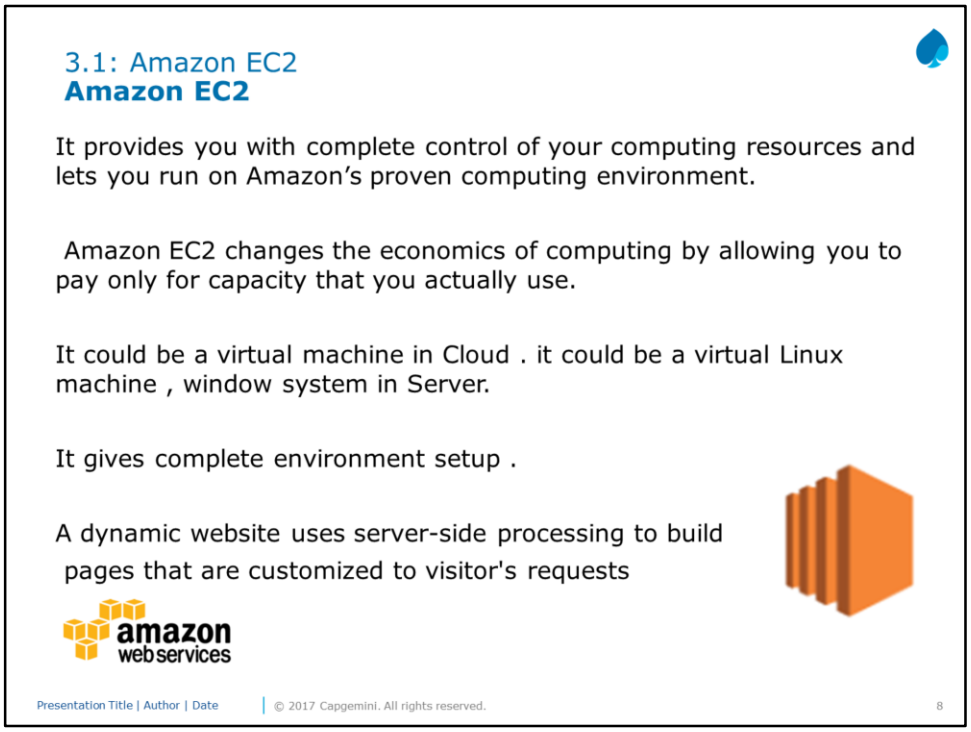

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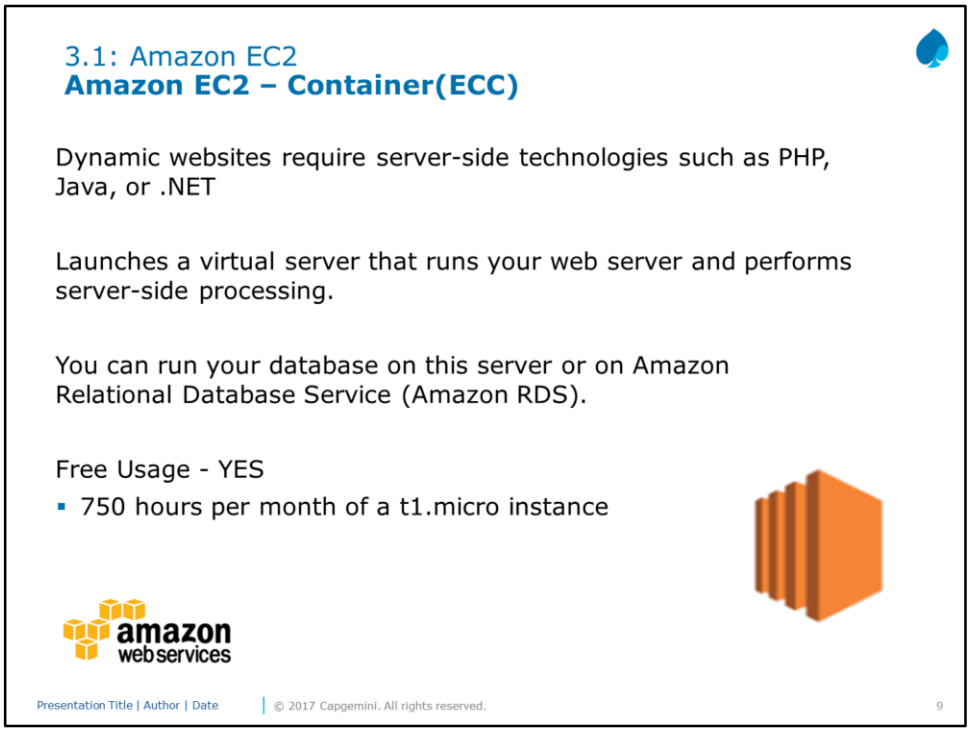

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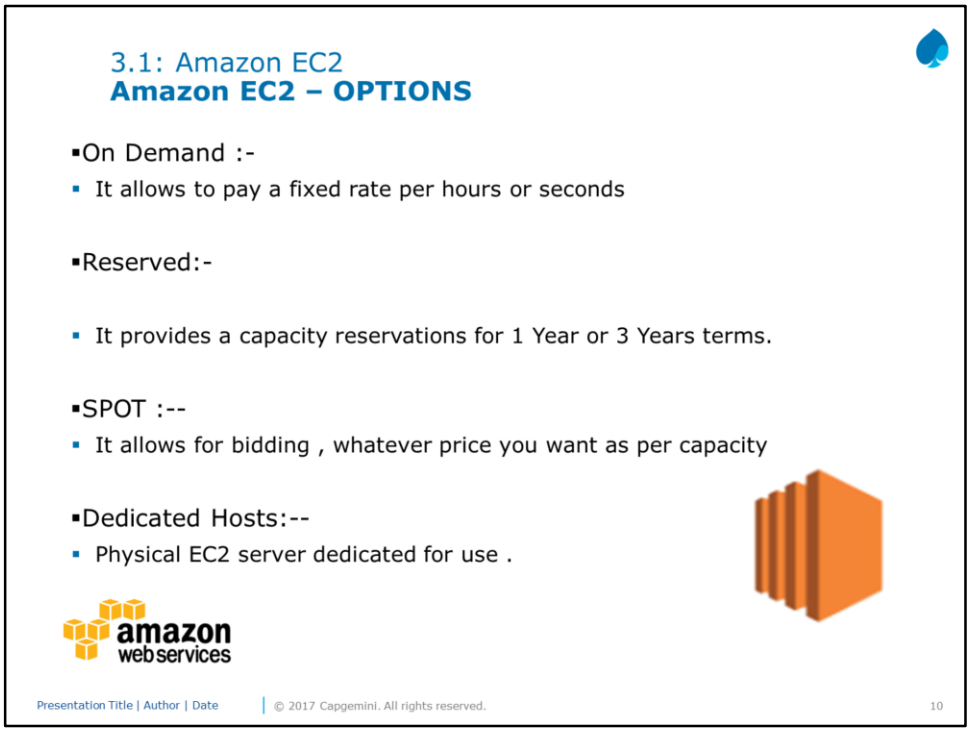

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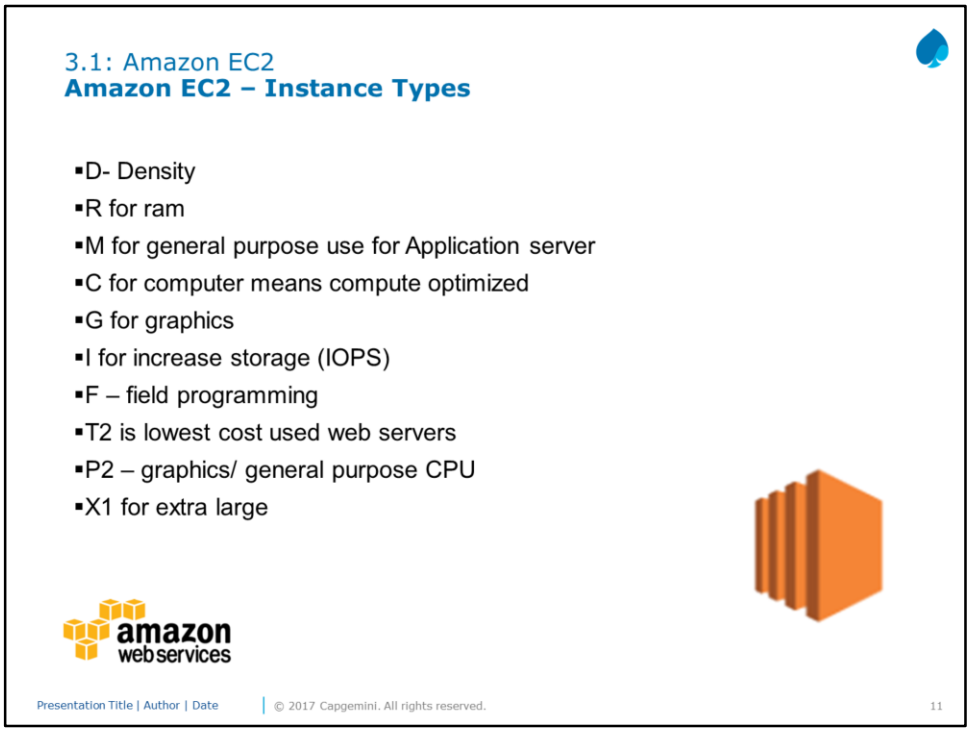

D- Density and 2 – for generation
How to remember tips:
R for ram means memory optimized
M for general purpose use for Application server. When we deploy the app server but we don't know what this App server will do , then M4 is the main choice.
C for computer means compute optimized
G for graphics intensive used for video encoding/streaming
I for increase storage (IOPS), i.e. high speed storage used (NoSQL db. ,data warehousing etc.)
F – field programming gateway (brand new)Hardware acceleration of code. You can choose hardware.
T2 is lowest cost used web servers , small DB
P2 – graphics/ general purpose CPU, used for Bit coin mining , machine learning etc.
X1 for extra large – extreme memory optimization (SAP , hana etc.)

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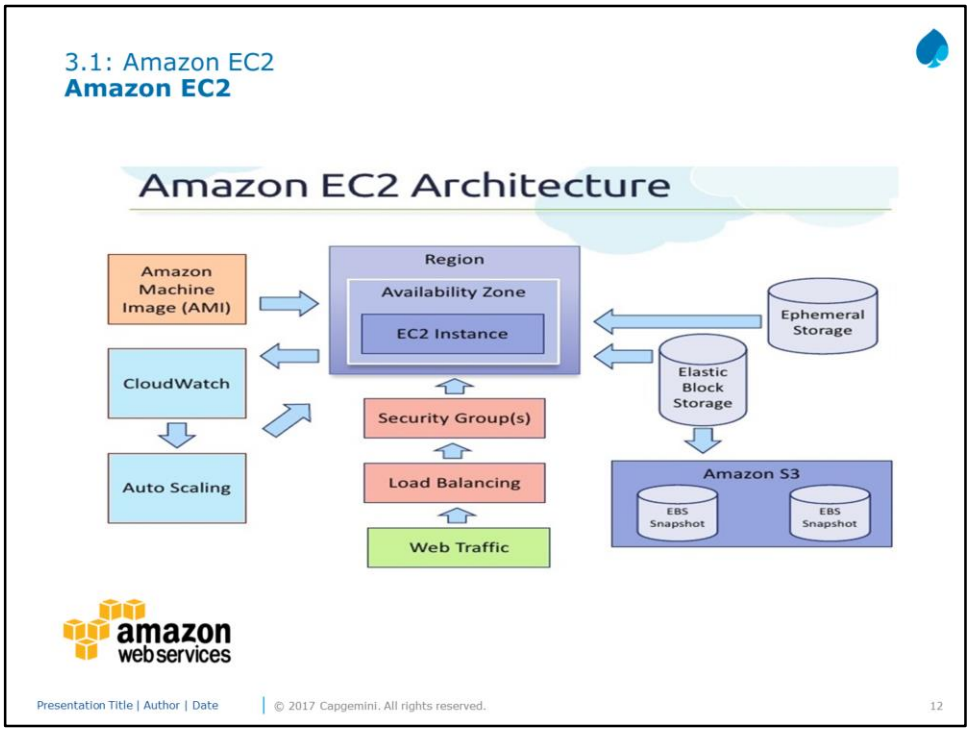
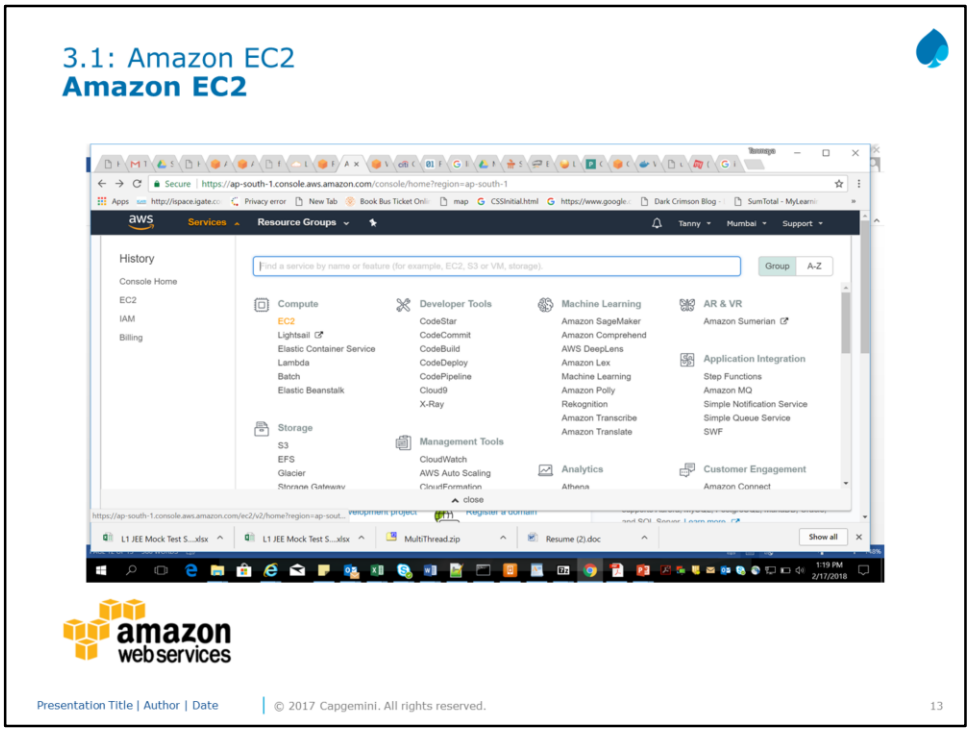


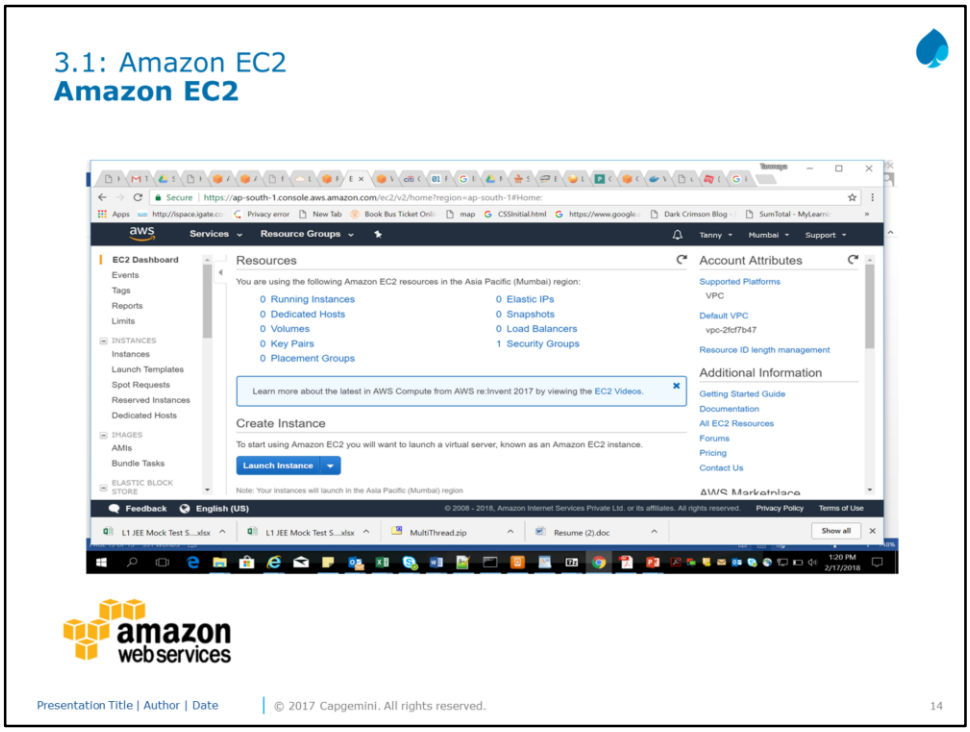
Click on EC2 Dashboard
Click on Launch Instances

Instructor Notes:



First Create an Account in AWS .
Click On Services and choose EC2 options

Instructor Notes:



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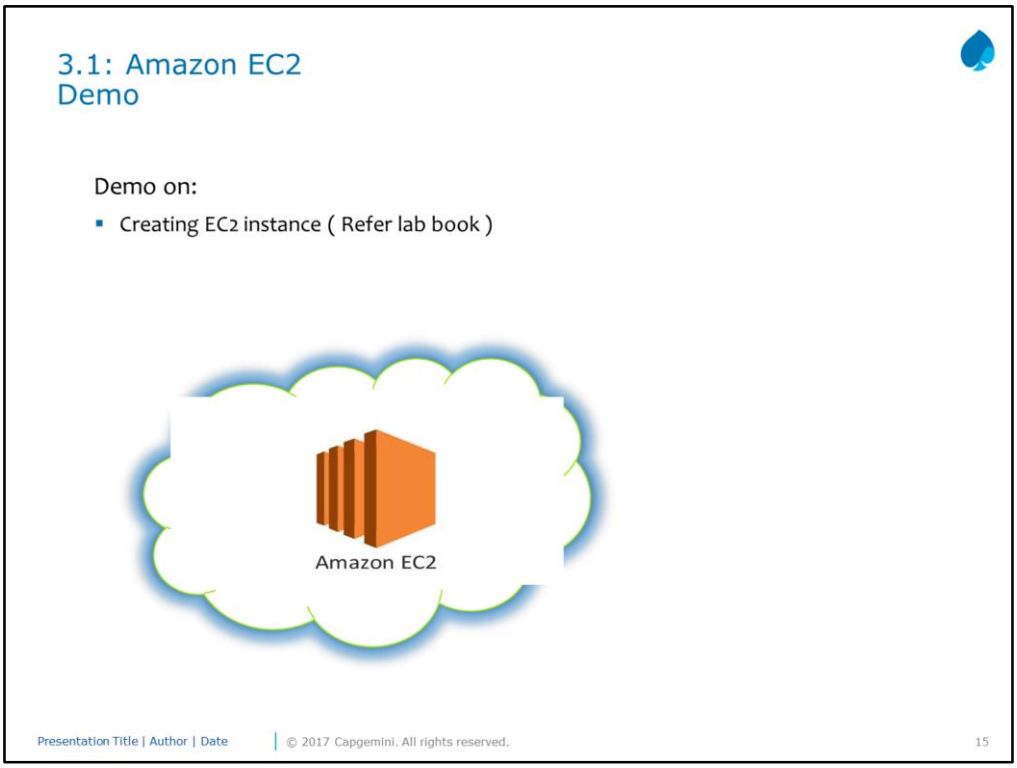

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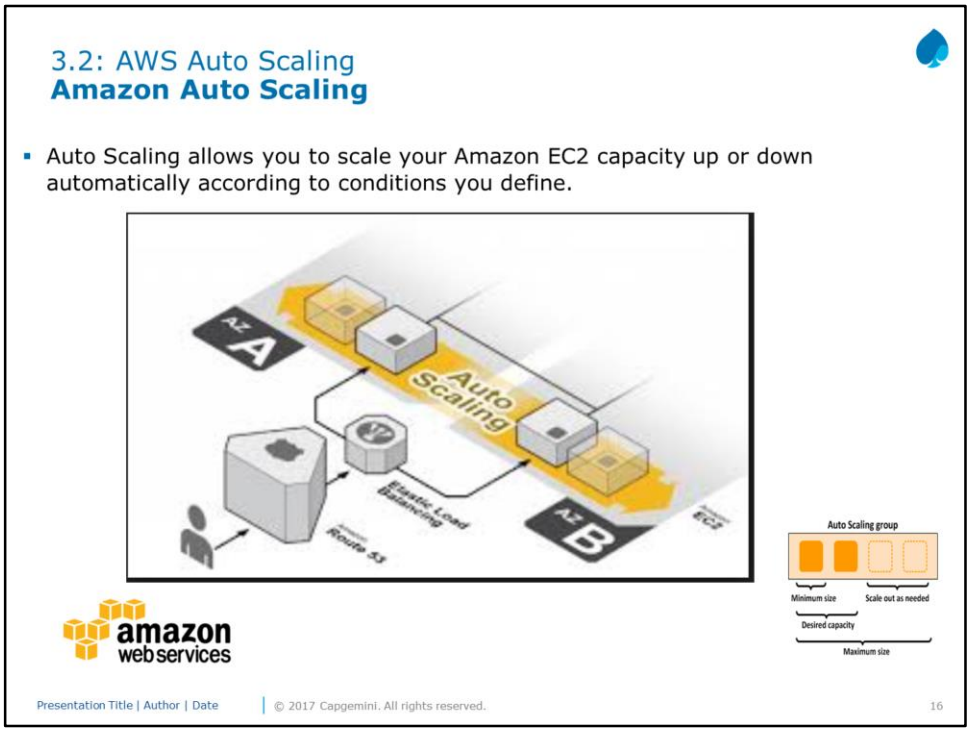

Auto Scaling

▪With Auto Scaling, one can ensure that the number of Amazon EC2 instances are using increases seamlessly during demand spikes to maintain performance, and decreases automatically during demand lulls to minimize costs.

▪Auto Scaling is particularly well suited for applications which experience hourly, daily, or weekly variability in usage.

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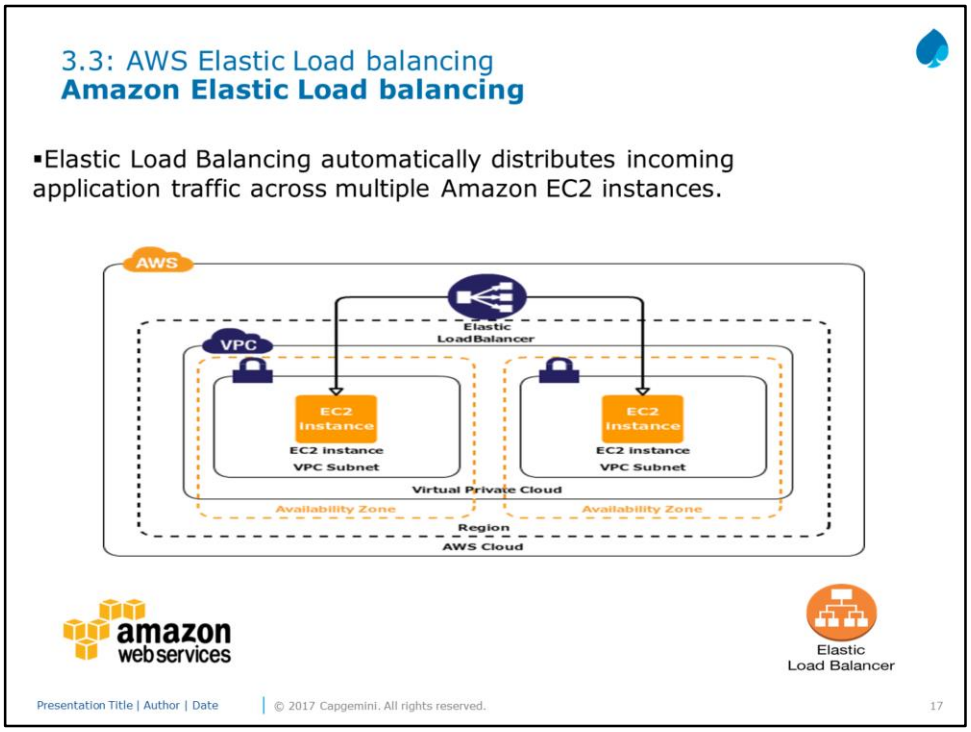


Elastic Load Balancing

▪It enables you to achieve even greater fault tolerance in our applications, seamlessly providing the amount of load balancing capacity needed in response to incoming application traffic.

▪It detects unhealthy instances and automatically reroutes traffic to healthy instances until the unhealthy instances have been restored.

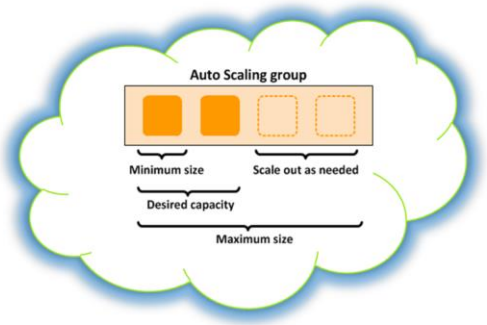
▪Customers can enable Elastic Load Balancing within a single Availability Zone or across multiple zones for even more consistent application performance.

Instructor Notes:

3.1: Amazon EC2 Demo

Demo on:

- Creating AutoScaling on EC2 instance (Refer lab book)



Instructor Notes:

Summary

In this lesson, you have learnt:

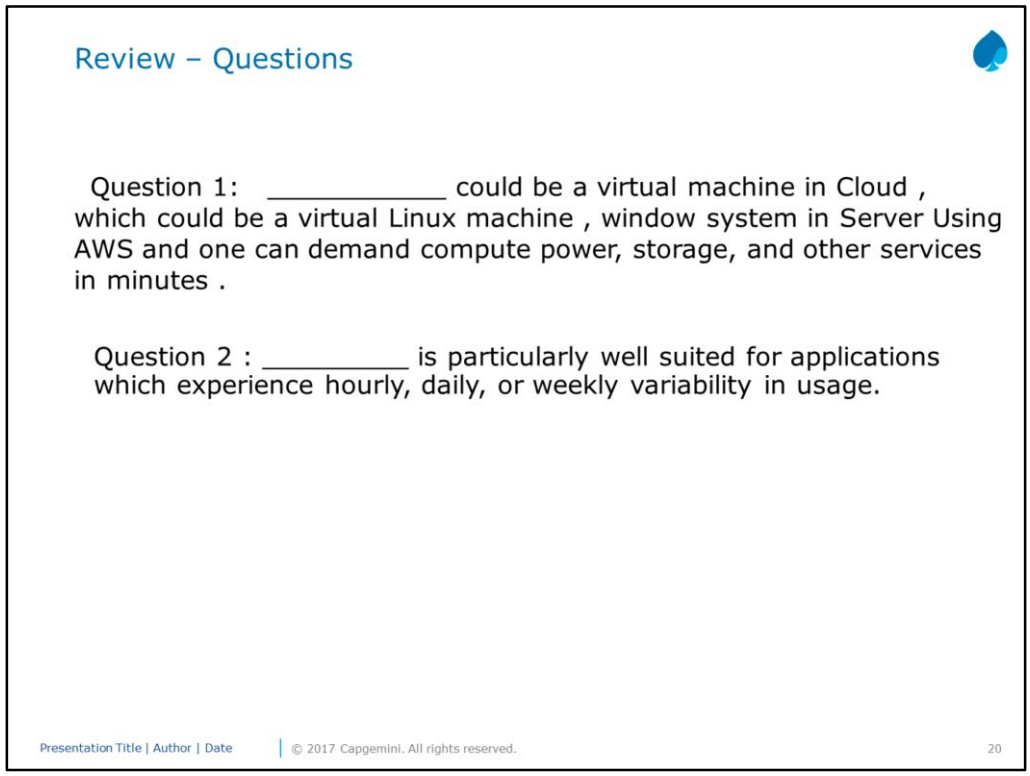
- What is Amazon EC2
- How to demand Amazon EC2
- Amazon Auto scaling
- Amazon Auto Load balancing

Instructor Notes:

Answers for the Review Questions:

Answer 1: Amazon EC2

Answer 2: Auto Scaling



Instructor Notes:

Answers for the Review Questions:

Answer 3 Elastic Load Balancing

Answer 4: Option 4