Amazon Web Services

Technical Fundamentals

Amazon Elastic Compute Cloud (EC2)

Capgemini Public

Agenda : Elastic Compute Cloud (EC2)

- **Revisiting EC2**
- **Hands-On Lab**
  - Launch an Instance
  - Decrypt Password and download RDP shortcut client
  - Connect to the EC2 instance
  - Terminate the Instance
- **Free Lab**

Elastic Compute Cloud (EC2)

What Is Amazon EC2? http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html

Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) cloud. Using Amazon EC2 eliminates your need to invest in hardware up front, so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.

Features of Amazon EC2

Amazon EC2 provides the following features:

- Virtual computing environments, known as *instances*
- Preconfigured templates for your instances, known as *Amazon Machine Images (AMIs)*, that package the bits you need for your server (including the operating system and additional software)
- Various configurations of CPU, memory, storage, and networking capacity for your instances, known as *instance types*
- Secure login information for your instances using *key pairs* (AWS stores the public key, and you store the private key in a secure place)
- Storage volumes for temporary data that's deleted when you stop or terminate your instance, known as *instance store volumes*
- Persistent storage volumes for your data using Amazon Elastic Block Store (Amazon EBS), known as *Amazon EBS volumes*
- Multiple physical locations for your resources, such as instances and Amazon EBS volumes, known as *regions* and *Availability Zones*
- A firewall that enables you to specify the protocols, ports, and source IP ranges that can reach your instances using *security groups*
- Static IP addresses for dynamic cloud computing, known as *Elastic IP addresses*
- Metadata, known as *tags*, that you can create and assign to your Amazon EC2 resources
- Virtual networks you can create that are logically isolated from the rest of the AWS cloud, and that you can optionally connect to your own network, known as *virtual private clouds* (VPCs)

Demo : Hands-On Lab EC2

Elastic Compute Cloud (EC2)

Setting Up Environment for Amazon EC2

- **Setting Up with Amazon EC2**
  - Sign Up for AWS
  - Create an IAM User
  - Create a Key Pair
  - Create a Virtual Private Cloud (VPC)
  - Create a Security Group

Creating , Connect and Terminate Amazon EC2 Instance

- **Launching Amazon EC2 Instance**
  - Step 1: Launch an Instance
  - Step 2: Connect to Your Instance
  - Step 3: Clean Up Your Instance

- **Note : Additional Step for Windows instances**
  - Decrypt Password and download RDP shortcut client

Summary : Elastic Compute Cloud (EC2)

- **Revisiting EC2**
- **Hands-On Lab**
  - Launch an Instance
  - Decrypt Password and download RDP shortcut client
  - Connect to the EC2 instance
  - Terminate the Instance