

Cloud Compute with AWS

Amazon EC2 (Elastic Cloud Compute) Overview

- Provides compute capacity in the AWS cloud
- EC2 instances can be resized and the number of instances scaled up or down as per our requirement
- Eliminates your need to invest in hardware up front, so you can develop and deploy applications faster.



Hands-On:

- Launching an EC2 Instance running Linux
 - We'll be launching our first virtual server using the AWS Console
 - We'll get a first high level approach to the various parameters
 - We'll learn how to start / stop / terminate our instance.

Hands-on: How to SSH into your EC2 Instance

- Putty
 - <https://winscp.net/download/putty.exe>
- MobaXterm
 - https://download.mobatek.net/2032020060430358/MobaXterm_Portable_v20.3.zip
- EC2 Instance Connect

Amazon AMI

- As we saw, AWS comes with base images such as:
 - Ubuntu
 - Fedora
 - RedHat
 - Windows
 - Etc....
- These images can be customized at runtime using EC2 User data
- But what if we could create our own image, ready to go?
- That's an AMI – an image to use to create our instances



Hands-on: Creating an Amazon Machine Image

- A user can set up an instance using an existing Amazon Machine Image, customize it then save the updated configuration as a custom machine image.

Hands-on: How to Use Amazon Machine Images

- After creating and registering an Amazon Machine Image, the developer can use it to set up new instances

Hands-on: Launching EC2 instance

- With Windows and
- Linux OS

Hands-on: Attaching EBS volume

- Step 1: Create a new volume of your preferred size and type.
- Step 2: Select the created volume, right-click and select the “attach volume”.
- Step 3: Login to ec2 instance and list available disks using:
 - `lsblk`
- Step 4: Check if the volume has any data using the following command:
 - `sudo file -s /dev/sdb`
- Step 5: Format volume to ext4 filesystem using the following command:
 - `sudo mkfs -t ext4 /dev/sdb`
- Step 6: Mount the volume:
 - `sudo mkdir /newvolume`
 - `sudo mount /dev/xvdf /newvolume/`

Thanks