1. Amazon EC2 Basics Lab:

Objective:

The objective of this lab is to guide users the process of setting up and managing an Amazon Ec2 instance. Users will learn how to launch an EC2 instance, select an appropriate instance type, configure instance details, create and configure a new Security Group, allocate an Elastic IP address to the instance, and connect to the instance via SSH.

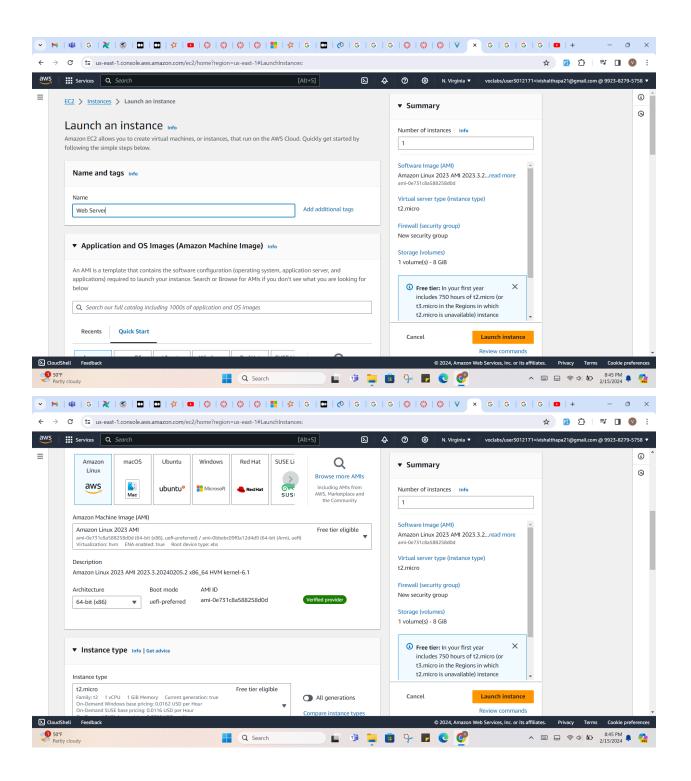
Steps involved:

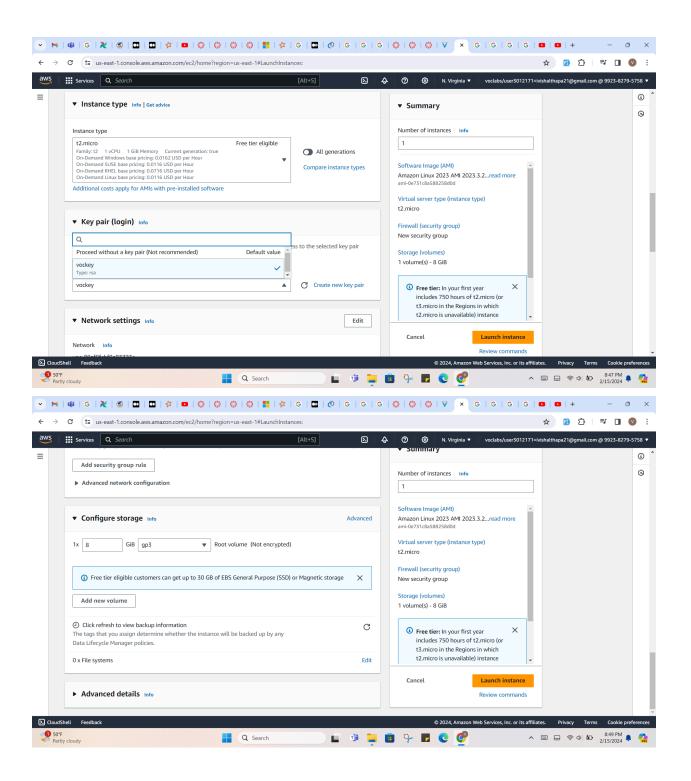
I. Launch new EC2 instance:

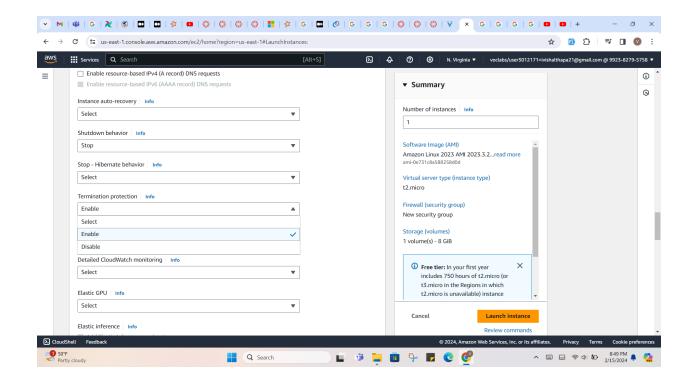
- a. Navigate to EC2 Dashboard
- b. Click on "Launch Instance"
- c. Choose an Amazon Machine Image(AMI): For this lab I used default Amazon Linux 2
- d. Select Instance type
 - We select the instance type based on our requirements. For this lab, I selected the "t2.micro" instance type.
- e. Configure Instance Details
 - Specify the number of instances, network settings, and storage
 - Add storage: choose the size and type of the storage for your instance, then click "Next" to proceed.

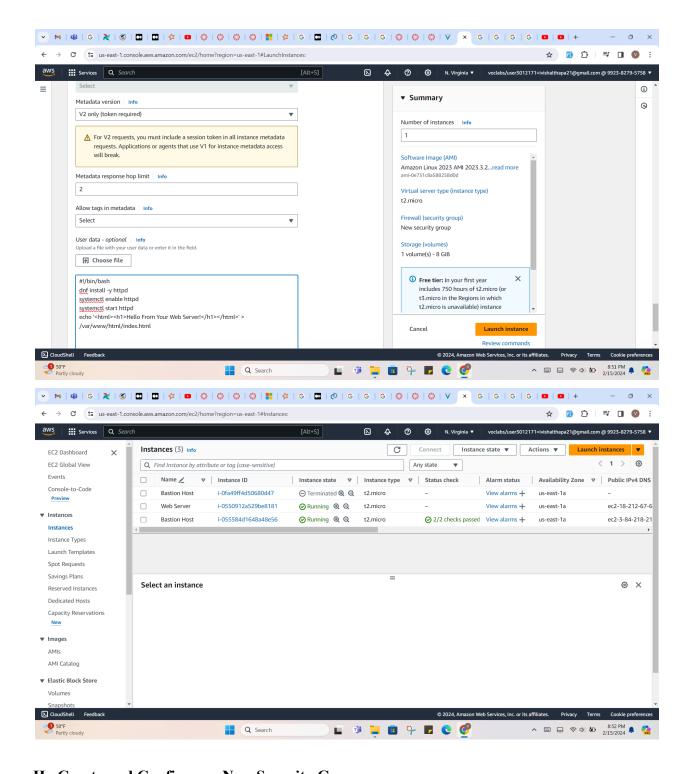
f. Add Tags (Optional)

- Generally tags are used so that it helps in easy identification.
- g. Configure Security Group
 - Create a new security group or use an existing one. Ensure port 22 (SSH) is open for inbound traffic. Click "Review and Launch"





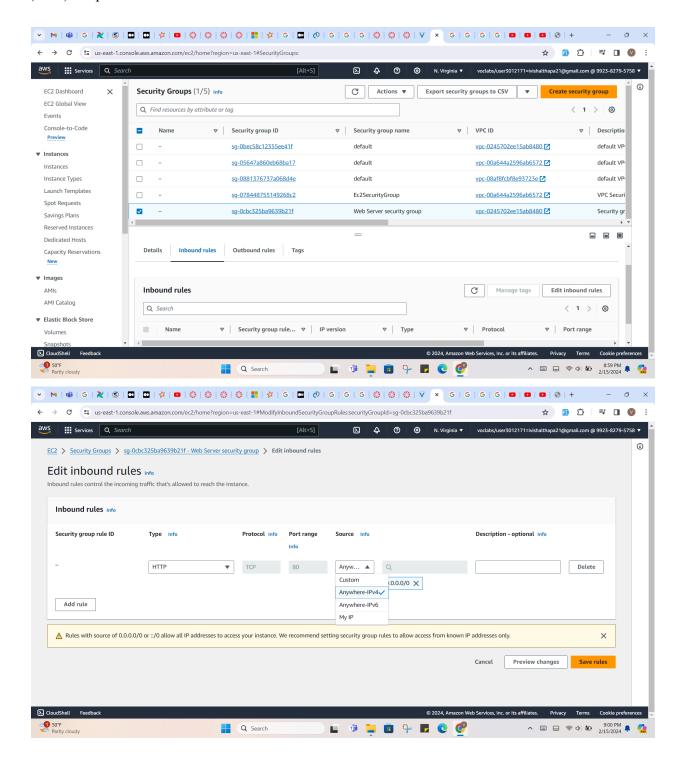




II. Create and Configure a New Security Group:

- a. Navigate to EC2 Dashboard
- b. Click on "Security Groups" from the sidebar
- c. Click on "Create Security Group"
- d. Give your security group a name and description

e. Configure inbound and outbound rules according to your requirements. Ensure port 22 (SSH) is open for inbound traffic.



III. Allocate an Elastic IP Address:

- a. Navigate to Elastic IPs in the EC2 dashboard
- b. Click on "Allocate new address" button
- c. Choose allocation method (Amazon's pool of IPV4 addresses) and confirm

IV. Associate Elastic IP Address with EC2 Instance:

- a. In the Elastic IPs dashboard, select the newly allocated Elastic IP address
- b. Click on "Actions" and then "Associate Address".
- c. Choose the instance that you launched earlier and confirm the association.