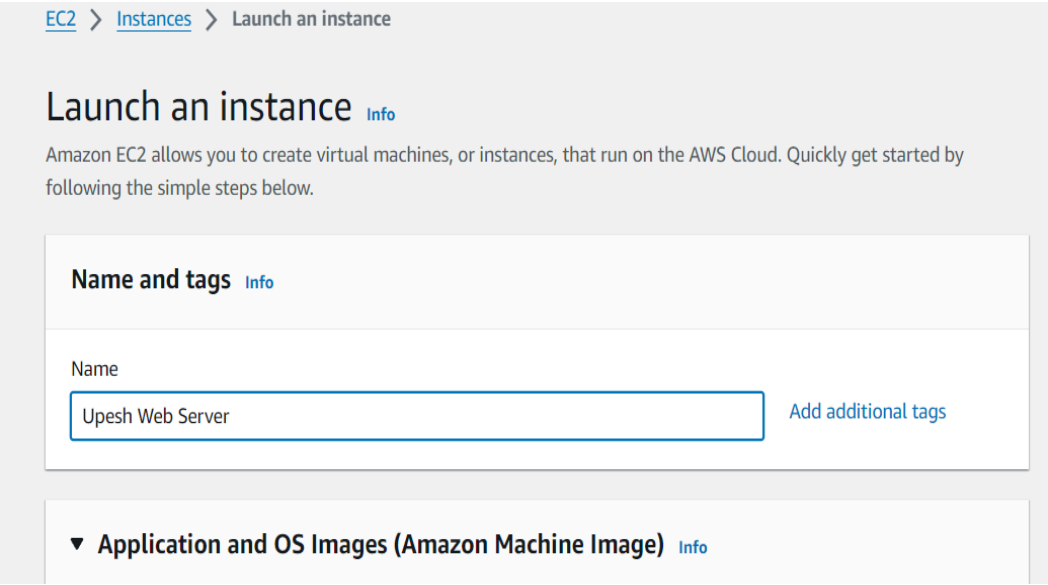
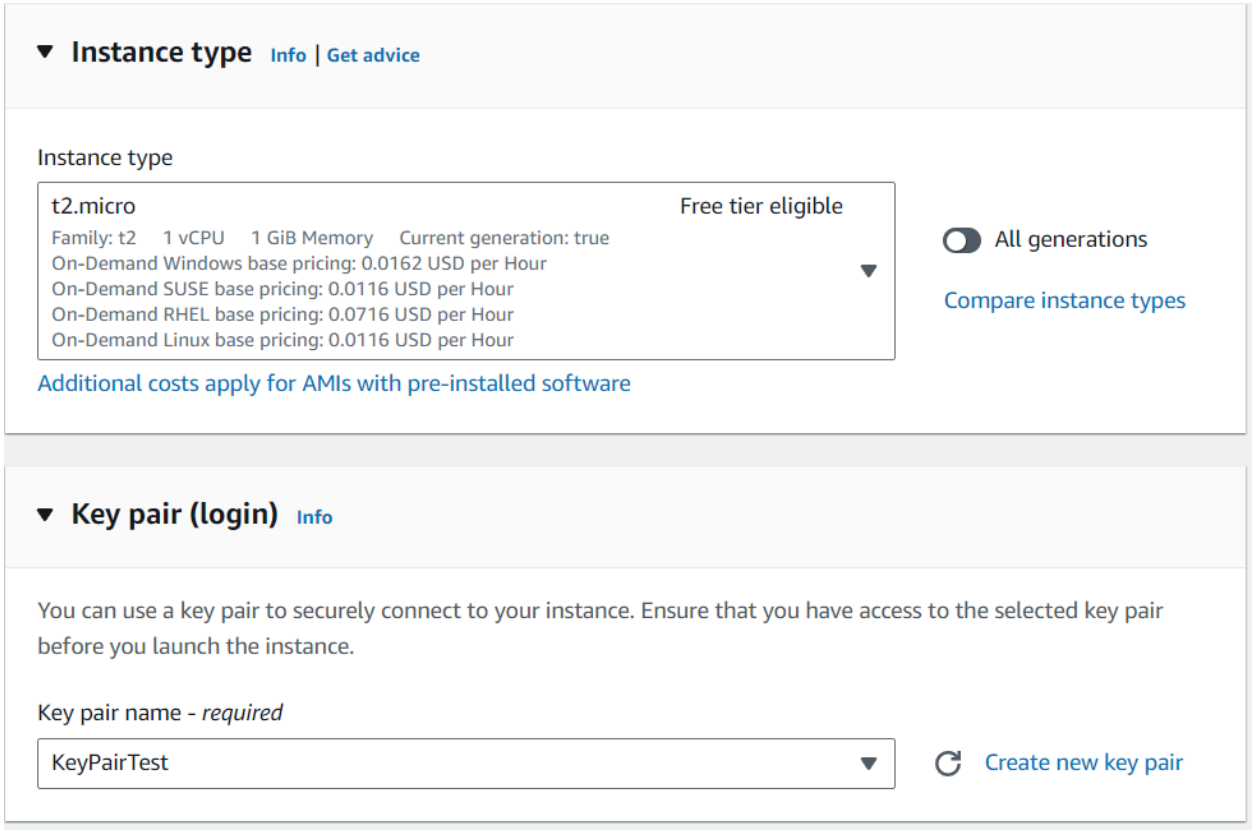
Basic Labs

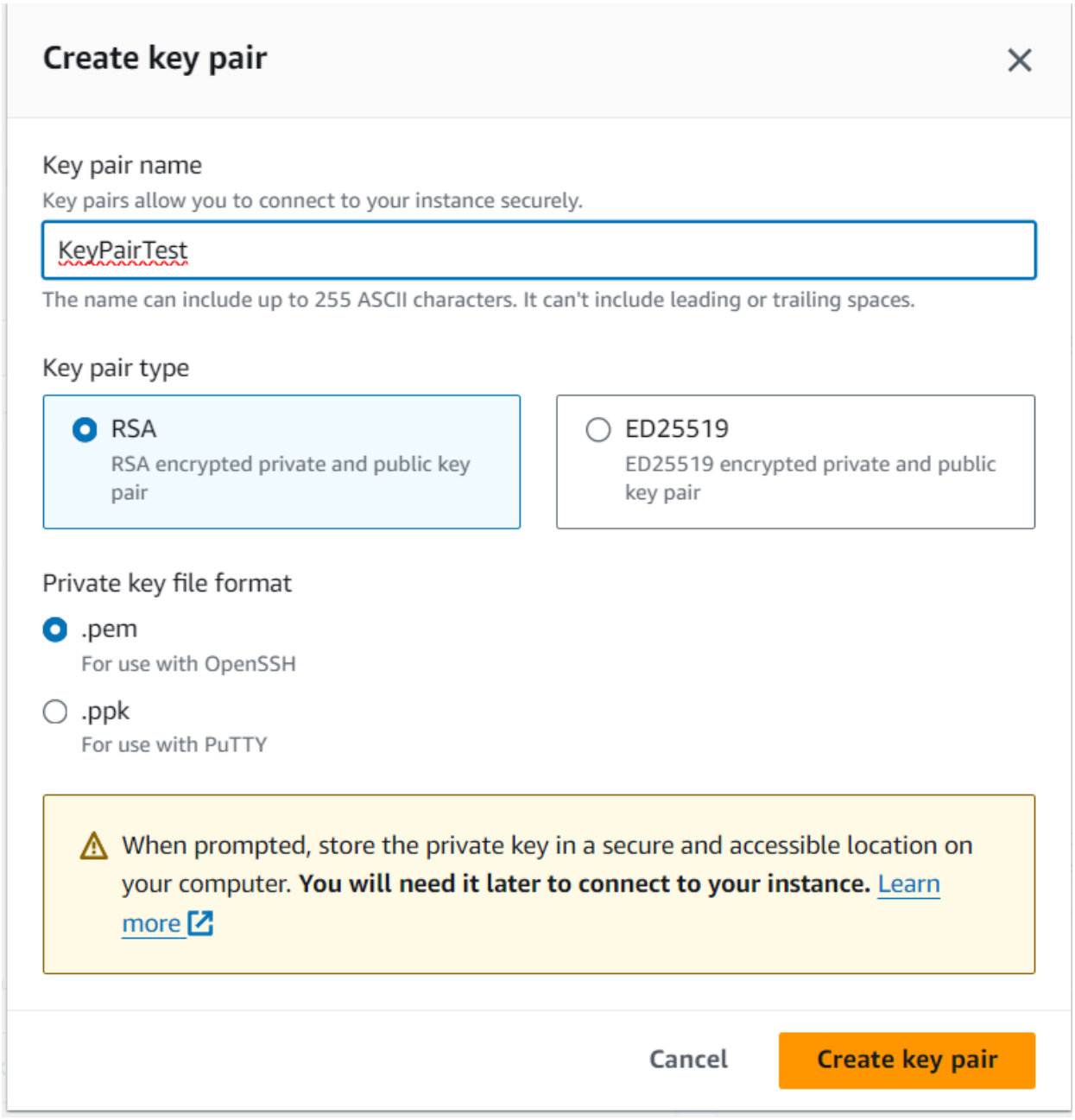
1. **EC2 Basics Lab**
    - **Objective**: To understand the process of setting up and managing an Amazon EC2 instance.
    - **Approach**: Students will start by launching a new EC2 instance, selecting an appropriate instance type and configuring the instance details. They will then create and configure a new Security Group, and allocate an Elastic IP address to the instance. The lab will also include connecting to the instance via SSH.
    - **Goal**: By the end of this lab, students should be able to launch and manage an EC2 instance, understand instance types, security groups, and IP addressing in AWS.

1. Launching EC2 Instance



2. **Selecting Instance Type and creating key value pair**





3. **Selecting appropriate Network Settings**

Network settings Info

Edit

Network Info

vpc-09def53eb1315ff84

Subnet Info

No preference (Default subnet in any availability zone)

Auto-assign public IP Info

Enable

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

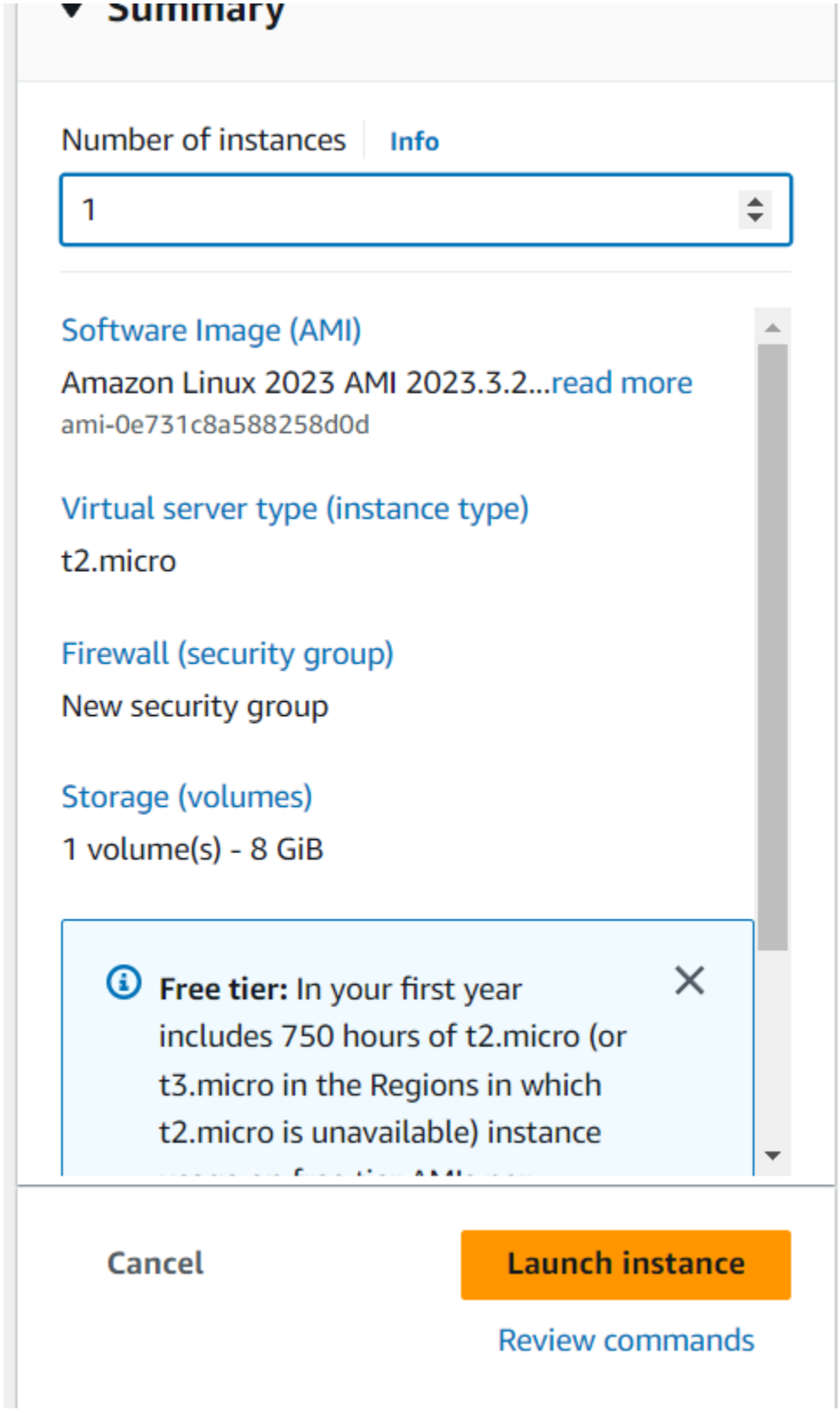
- (•) Create security group
- ( ) Select existing security group

We'll create a new security group called '**launch-wizard-5**' with the following rules:

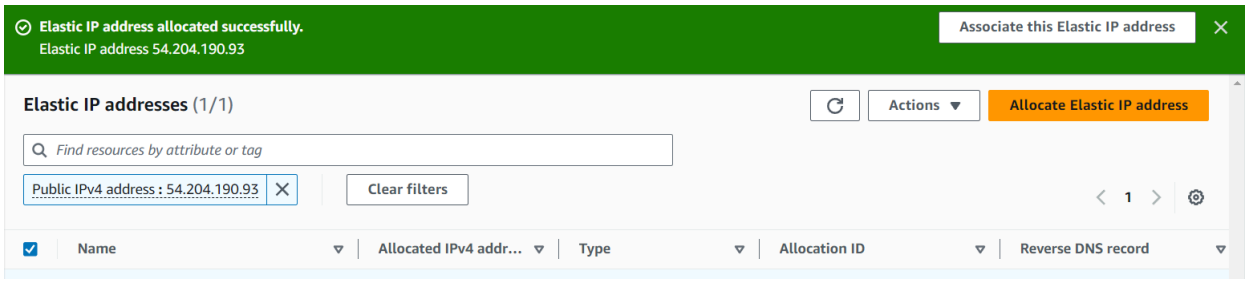
- [x] Allow SSH traffic from
  Helps you connect to your instance
  Anywhere
  0.0.0.0/0
- [x] Allow HTTPS traffic from the internet
  To set up an endpoint, for example when creating a web server
- [x] Allow HTTP traffic from the internet
  To set up an endpoint, for example when creating a web server

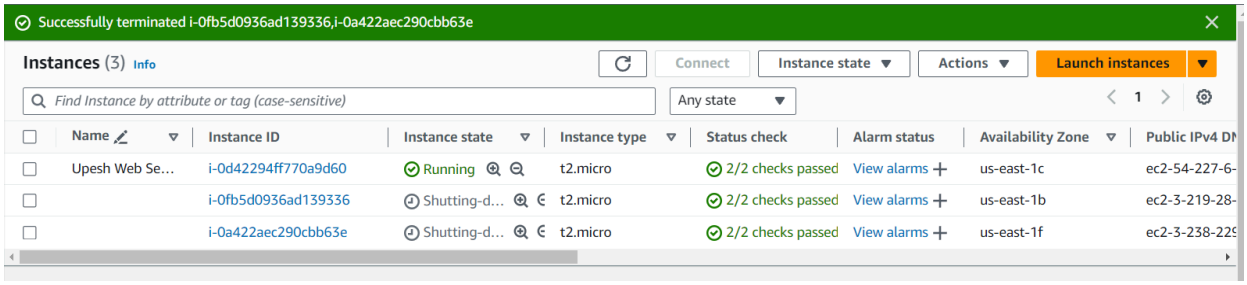
⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting

4. **Creating a single Instance**



5.Elastic Ip allocation for Instance





Elastic IP address: 54.204.190.93

Resource type

Choose the type of resource with which to associate the Elastic IP address.

- (•) Instance
- ( ) Network interface

⚠ If you associate an Elastic IP address with an instance that already has an Elastic IP address associated, the previously associated Elastic IP address will be disassociated, but the address will still be allocated to your account. Learn more

If no private IP address is specified, the Elastic IP address will be associated with the primary private IP address.

Instance

i-0d42294ff770a9d60

Private IP address

The private IP address with which to associate the Elastic IP address.

Choose a private IP address

Reassociation

Specify whether the Elastic IP address can be reassociated with a different resource if it already associated with a resource.

- [ ] Allow this Elastic IP address to be reassociated

Cancel | Associate

Instance: i-0d42294ff770a9d60 (Upesh Web Server)

Details | Status and alarms New | Monitoring | Security | Networking | Storage | Tags

▼ Instance summary Info

Instance ID i-0d42294ff770a9d60 (Upesh Web Server)	Public IPv4 address 54.204.190.93 |open address	Private IPv4 addresses 172.31.80.164
IPv6 address –	Instance state Running	Public IPv4 DNS ec2-54-204-190-93.compute-1.amazonaws.com |open address
Hostname type IP name: ip-172-31-80-164.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-80-164.ec2.internal	

7. **Connecting to the instance via SSH**