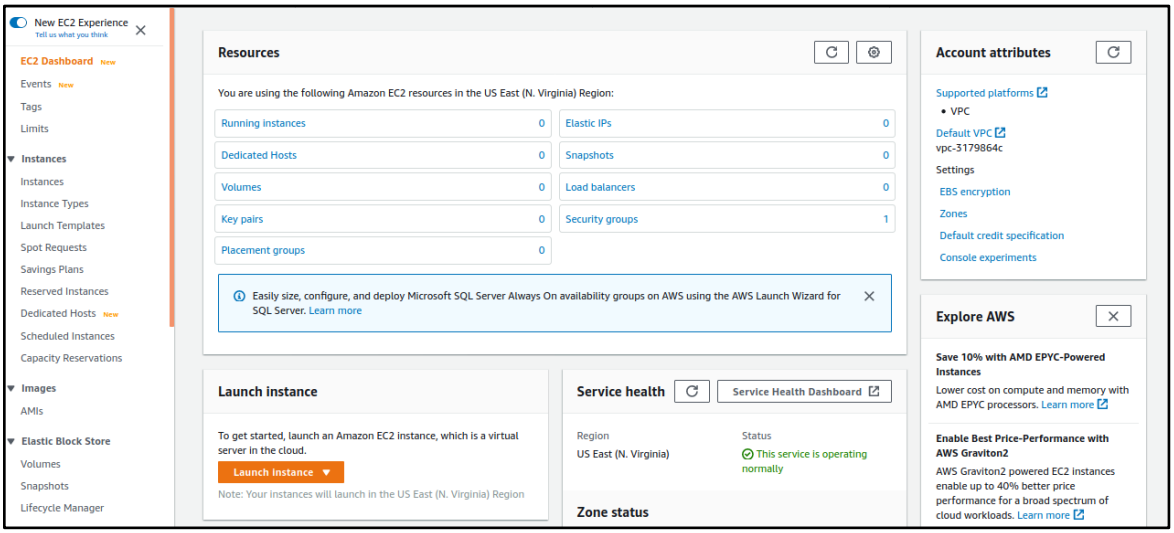
Course-End Project: Setting up a Website on Cloud

This section will guide you to:

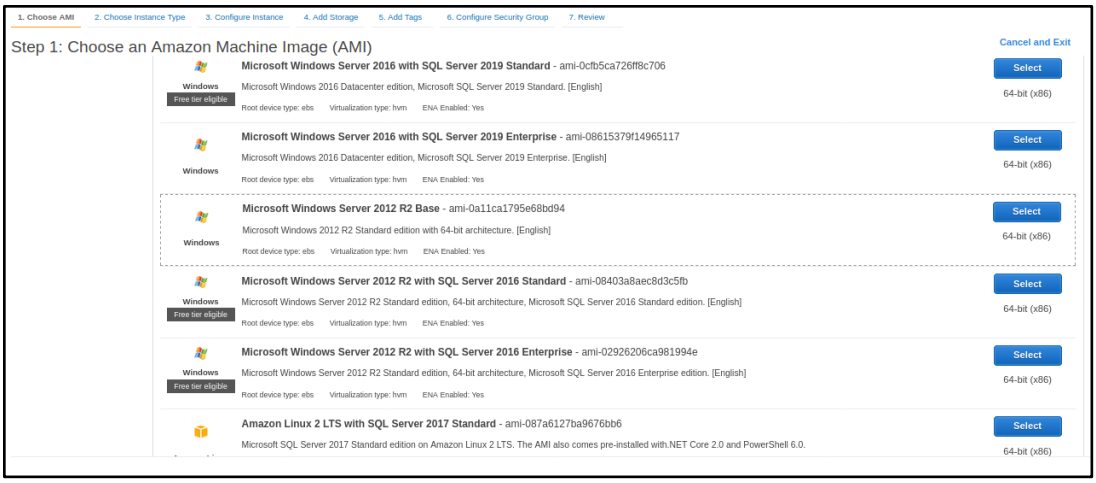
1. Create an EC2 instance
2. Install a web server (IIS) role
3. Create a static website and check on a localhost
4. Create an image of the machine and save the AMI
5. Create a new instance using the AMI you have saved
6. Create a Load Balancer and attach the instances mentioned above
7. Check the DNS name on the browser

Step 1: Create an EC2 instance

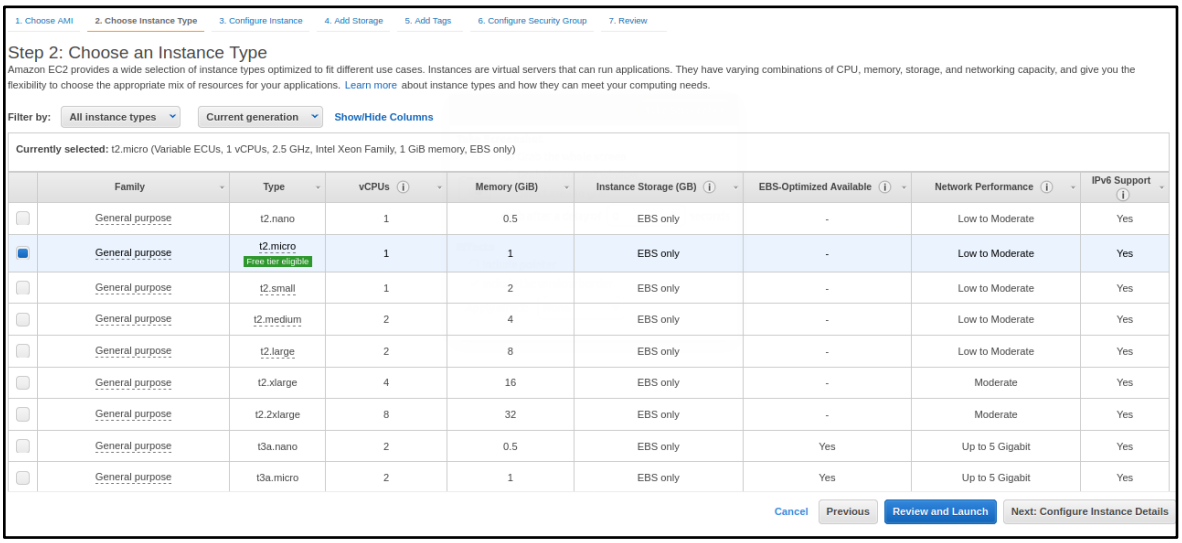
- On the **Services** menu, click on **EC2**
- On the EC2 dashboard, click on **Launch Instance**



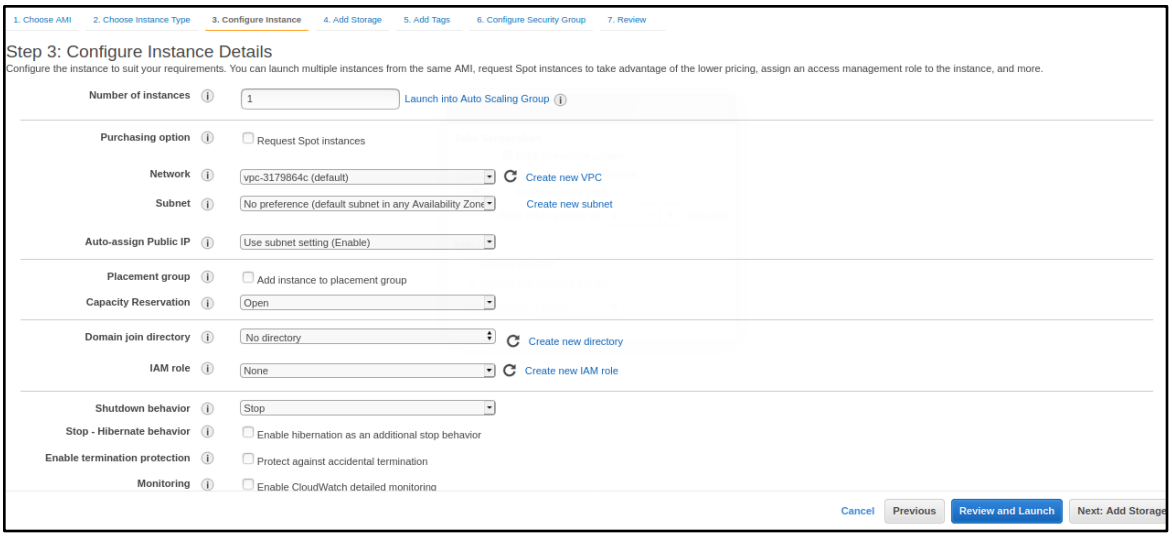
- Under **Amazon Machine Image** (AMI) select the **Windows Server 2012 R2 Base** image



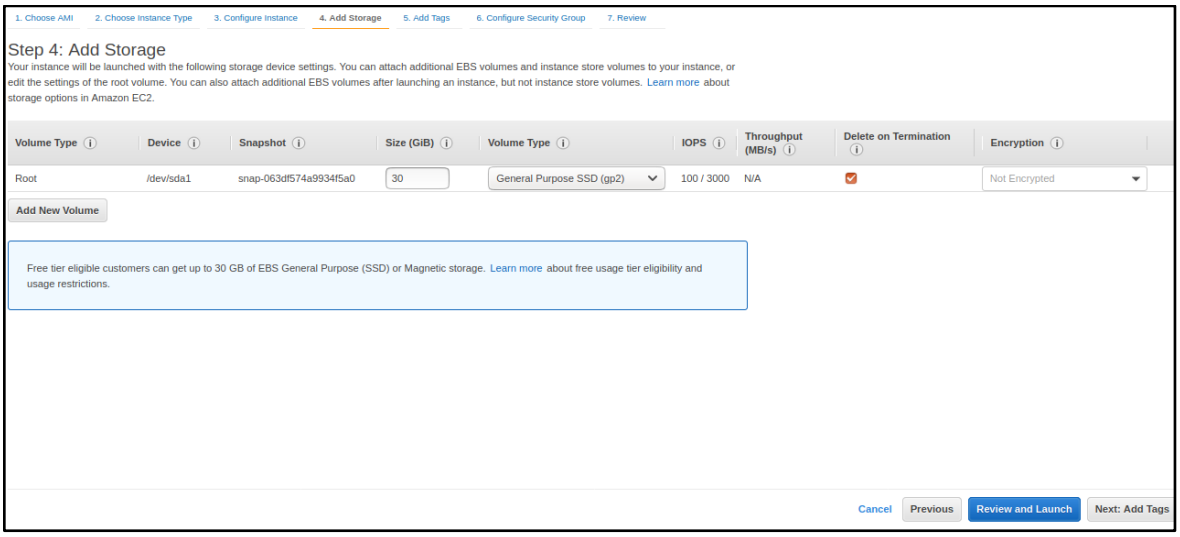
- Choose the instance type as **t2.micro**



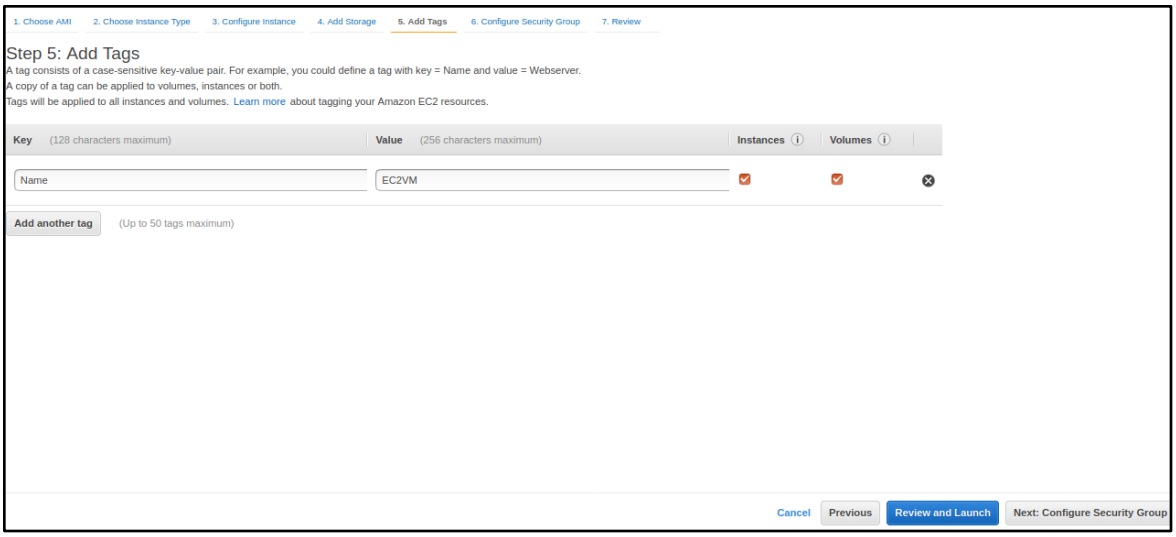
- On the **Configure Instance Details** page, specify the following settings:
  - Network: **Default VPC**
  - Subnet: **No Preference**
  - Auto-assign public IP: **Enabled**



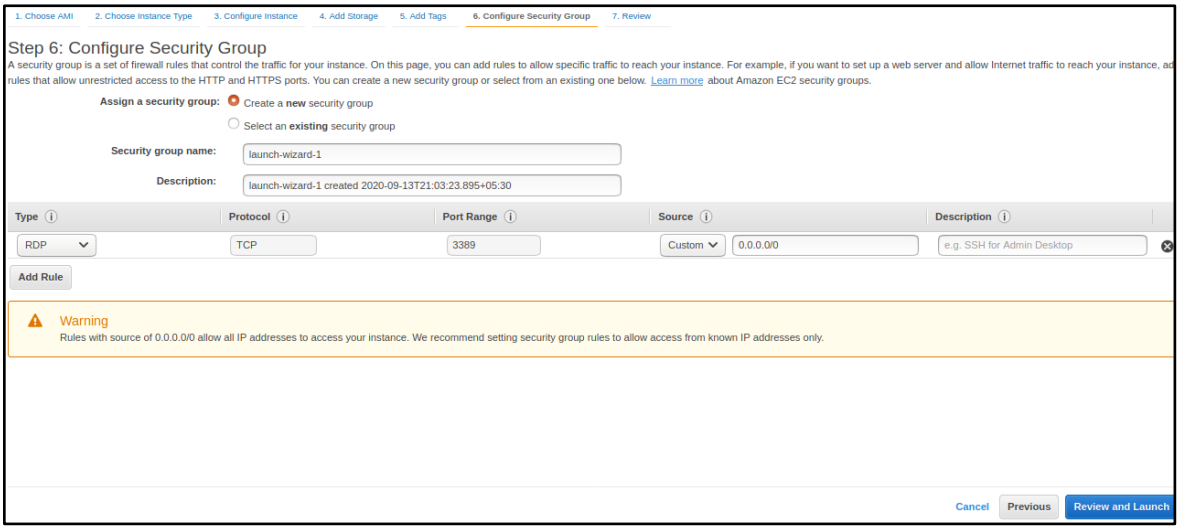
- Clickon **Next: Add storage**
- Accept the default storage details and click on **Next: Tag Instance**



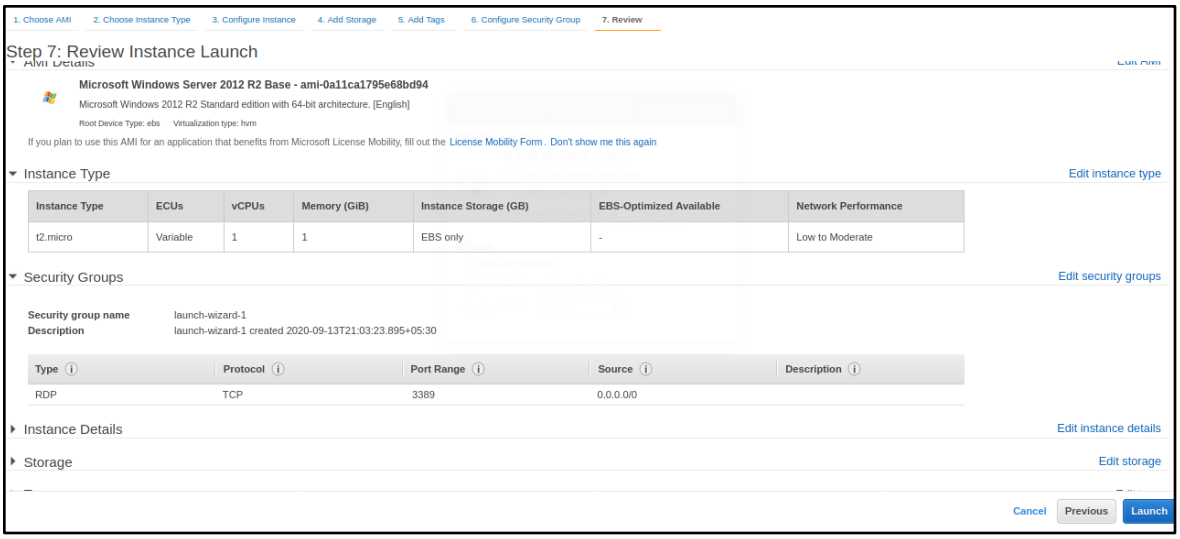
- In the **Value** box, type EC2VM and click on **Next: Configure Security Group**



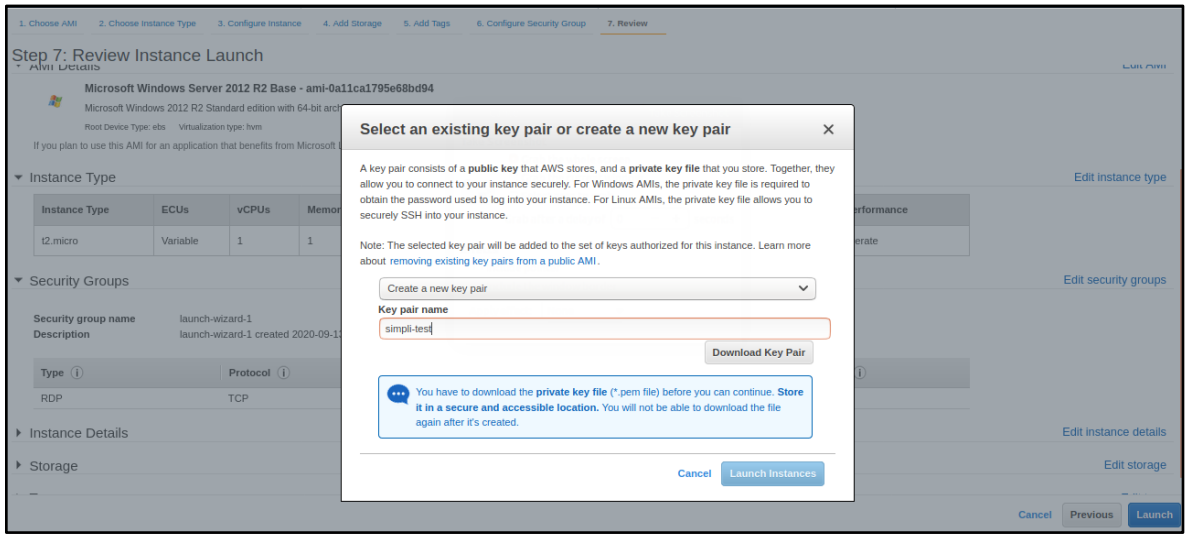
- In this step, you will configure a security group that will allow you to access the EC2VM instance by using an RDP connection. On the **Configure Security Group** page, use the following values:
  - **Assign a security group:** Click on **Create a new security group** option
  - **Security group name: RDP Access**



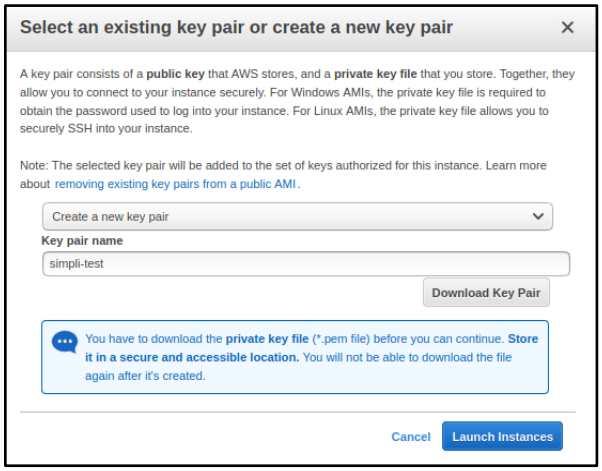
- Click on **Review and Launch**
- On the **Review Instance Launch** page, review the configuration of your instance and then click on **Launch**



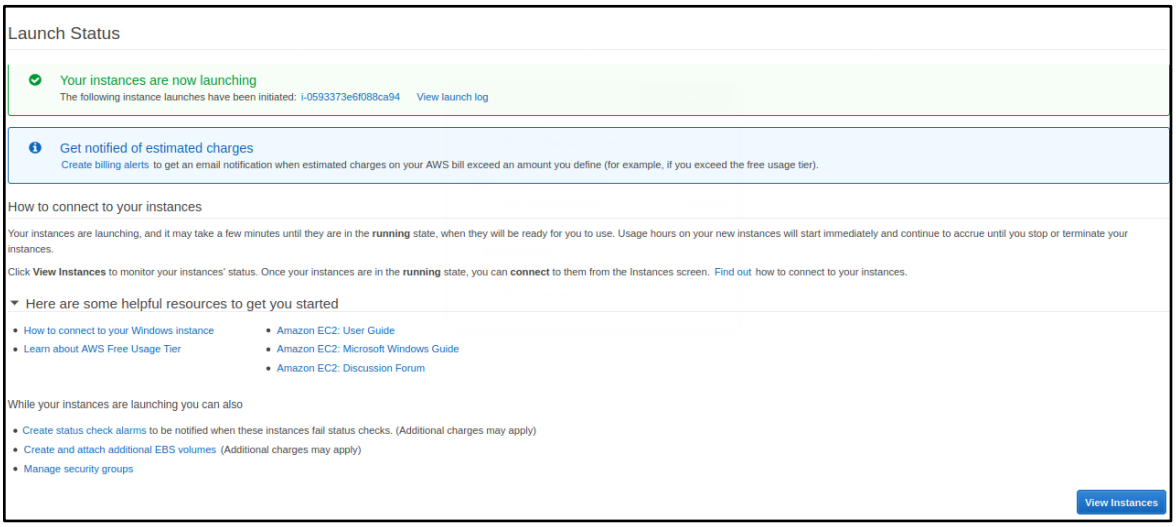
- Under **Select an existing key pair or create a new key pair**, enter the name of the key pair, accept, and click on **Download Key Pair**



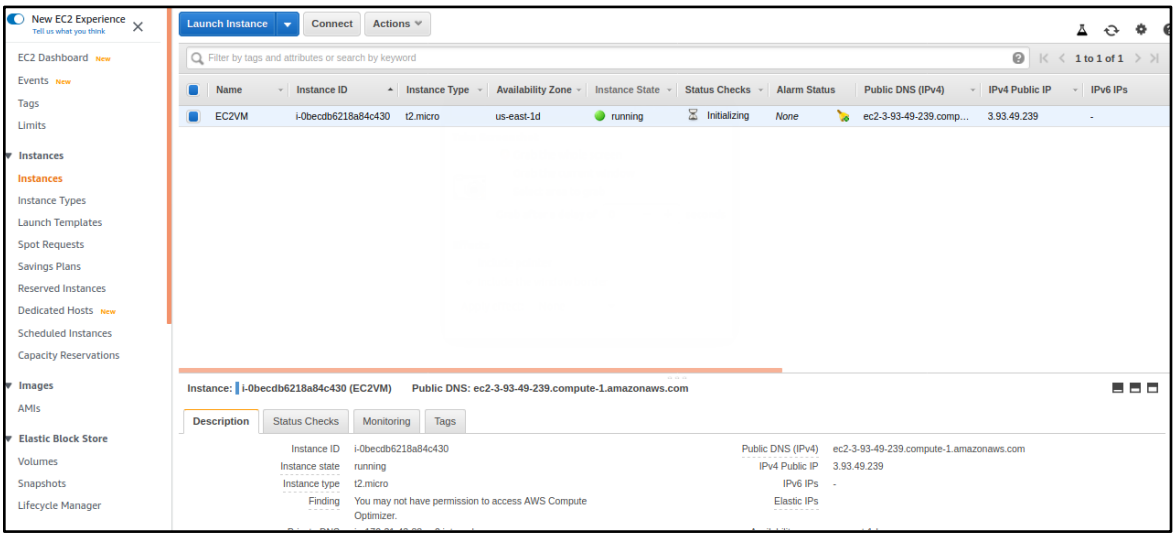
- Once it's downloaded, click on **Launch Instances**



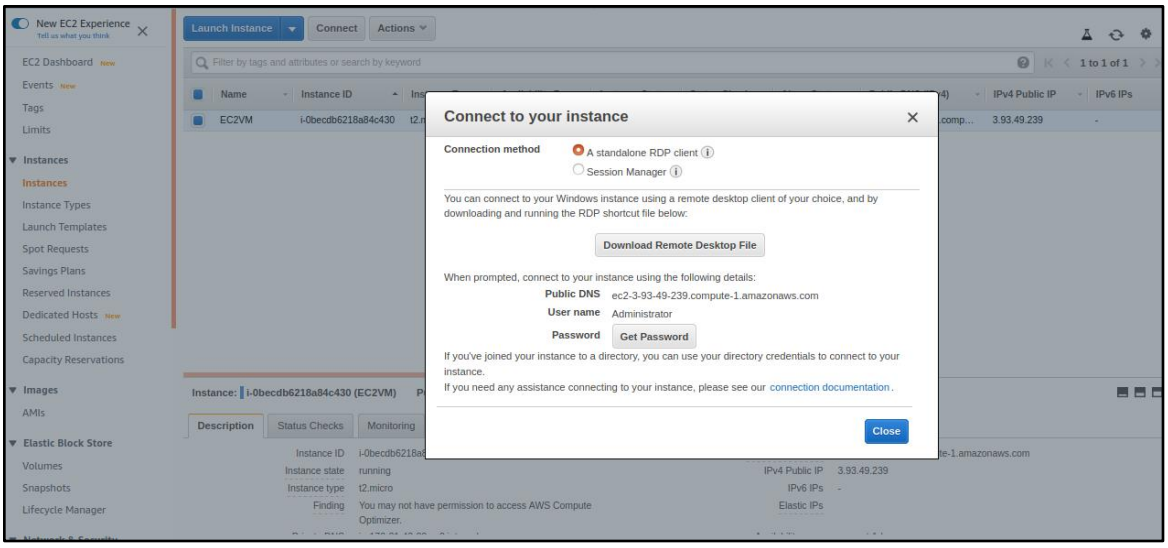
- On the **Launch Status** page, click on **View Instances**



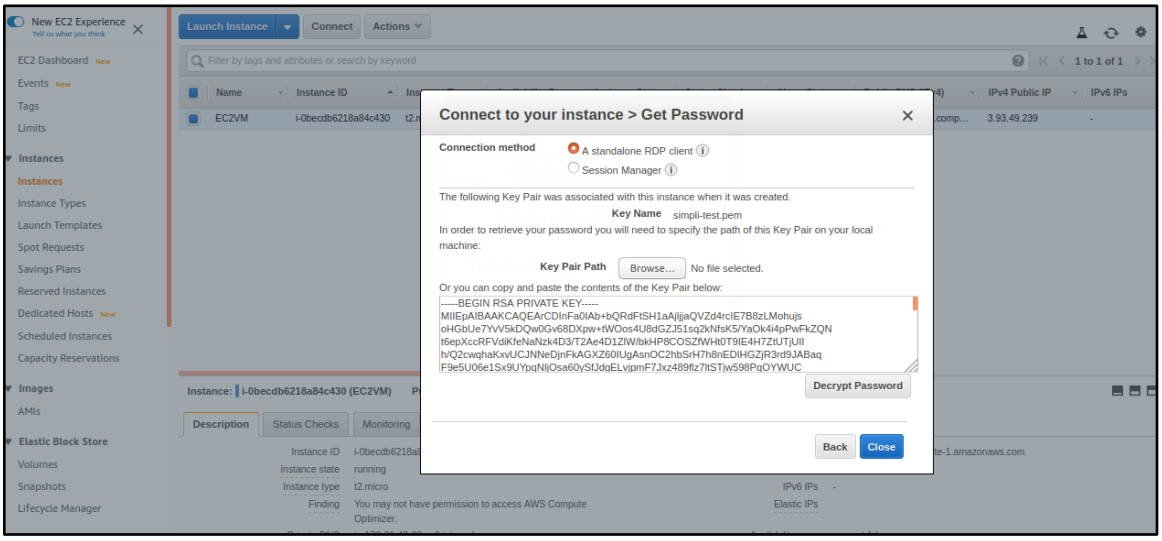
- Find the EC2 instance created successfully



- Click on the **Connect** button, and a new window pops up for you to decrypt the password using the **pem** key downloaded
- Click on **Get password**

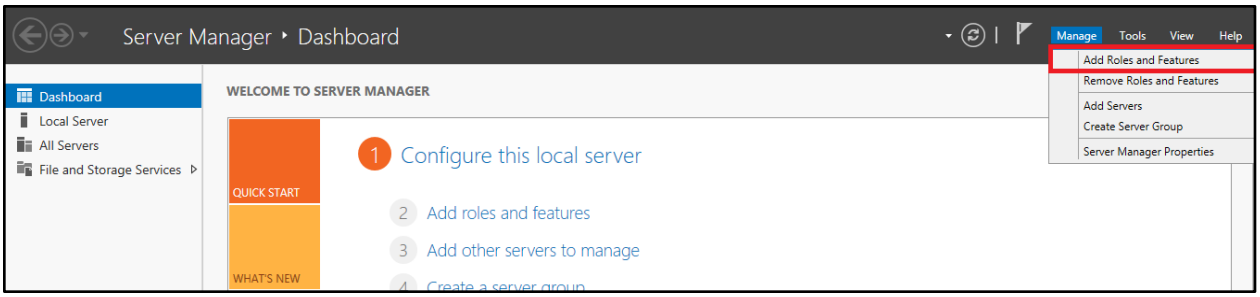


- Click on **Choose File** and select the file you have downloaded
- Click on **Decrypt Password** to get the system password
    - Please note the password file and download the remote desktop file to log in to the EC2 instance

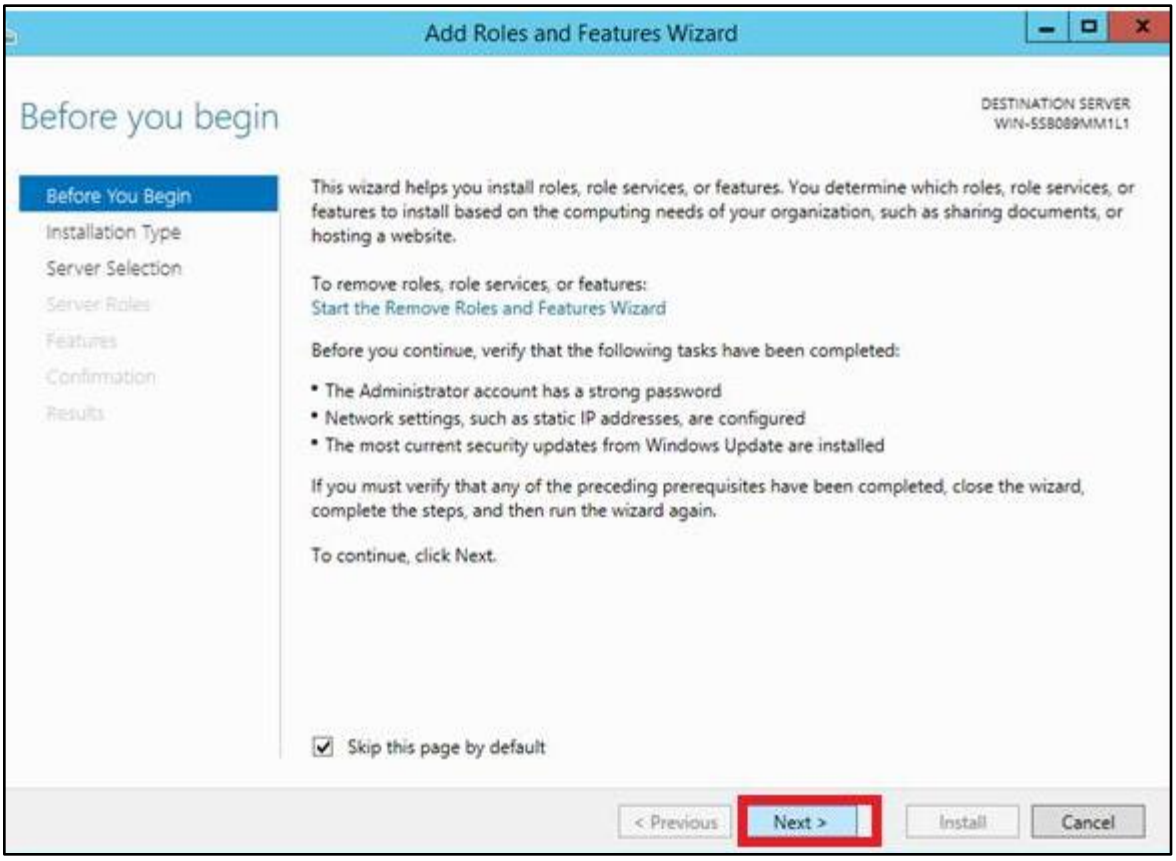


Step 2: Install a web server for IIS role

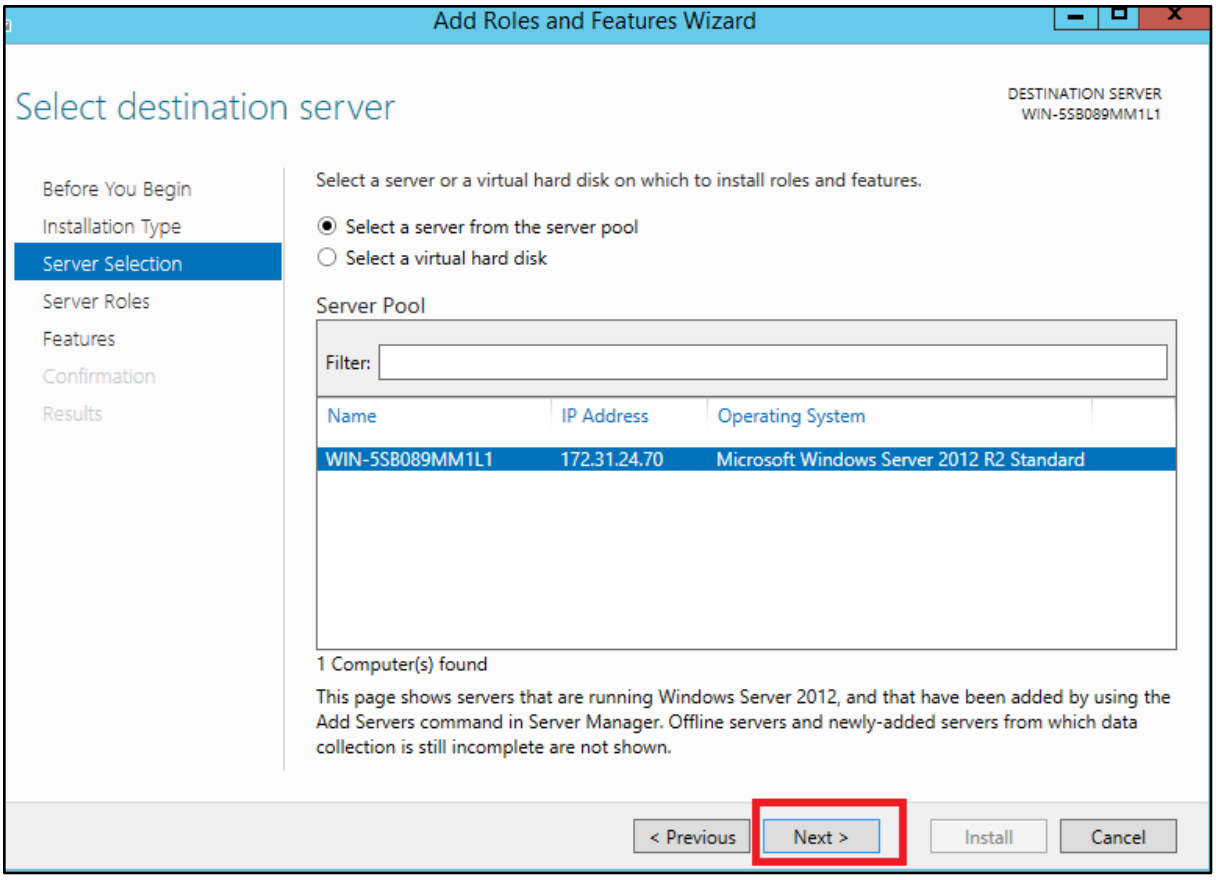
- After logging in to the instance, click on the **Server Manager** and then on **Manage**
- Select **Add Roles and Features**



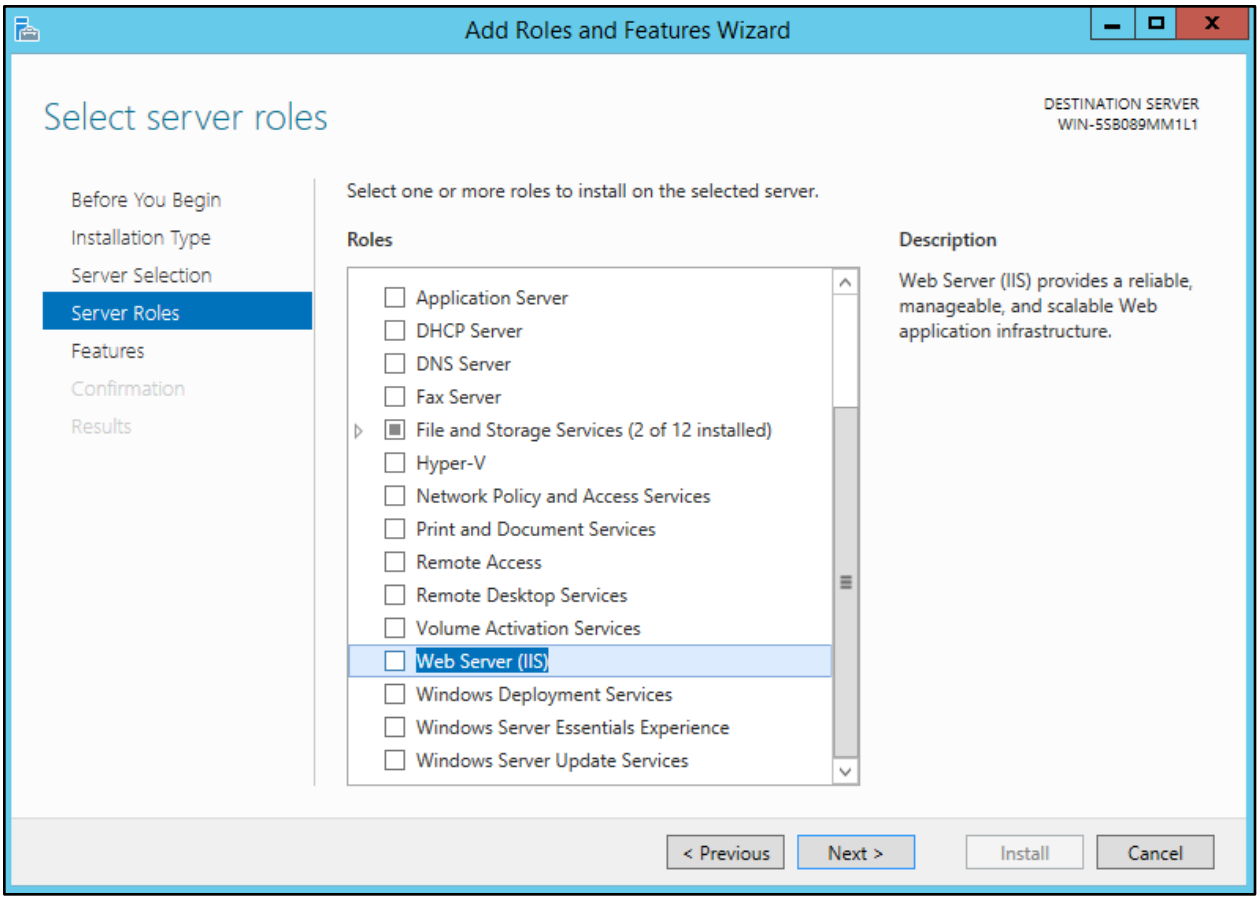
- In the **Before you begin** page, click on **Next**

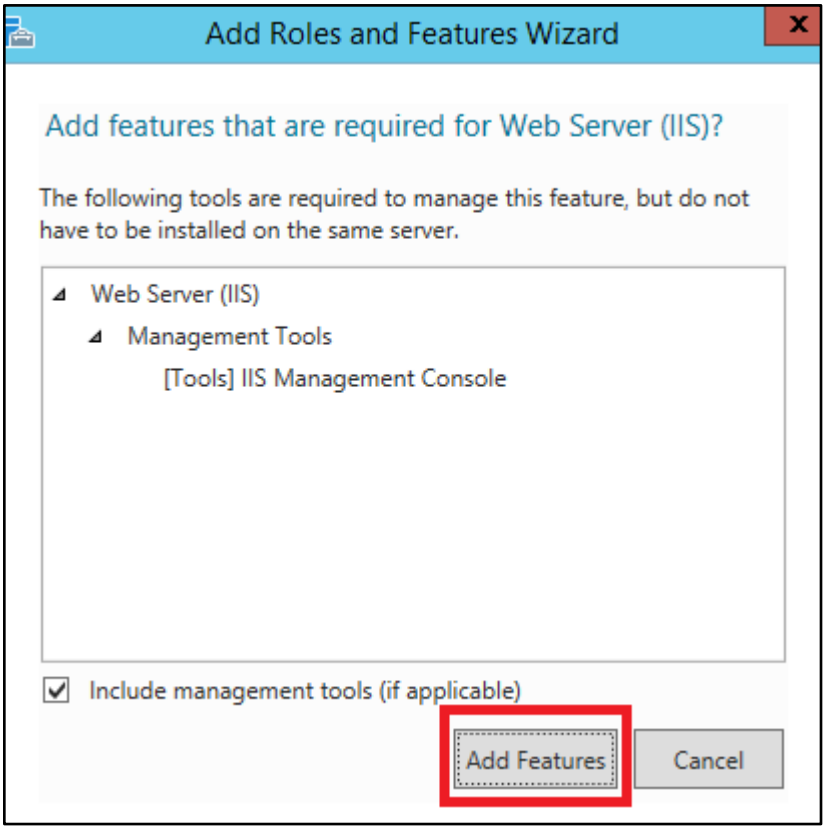


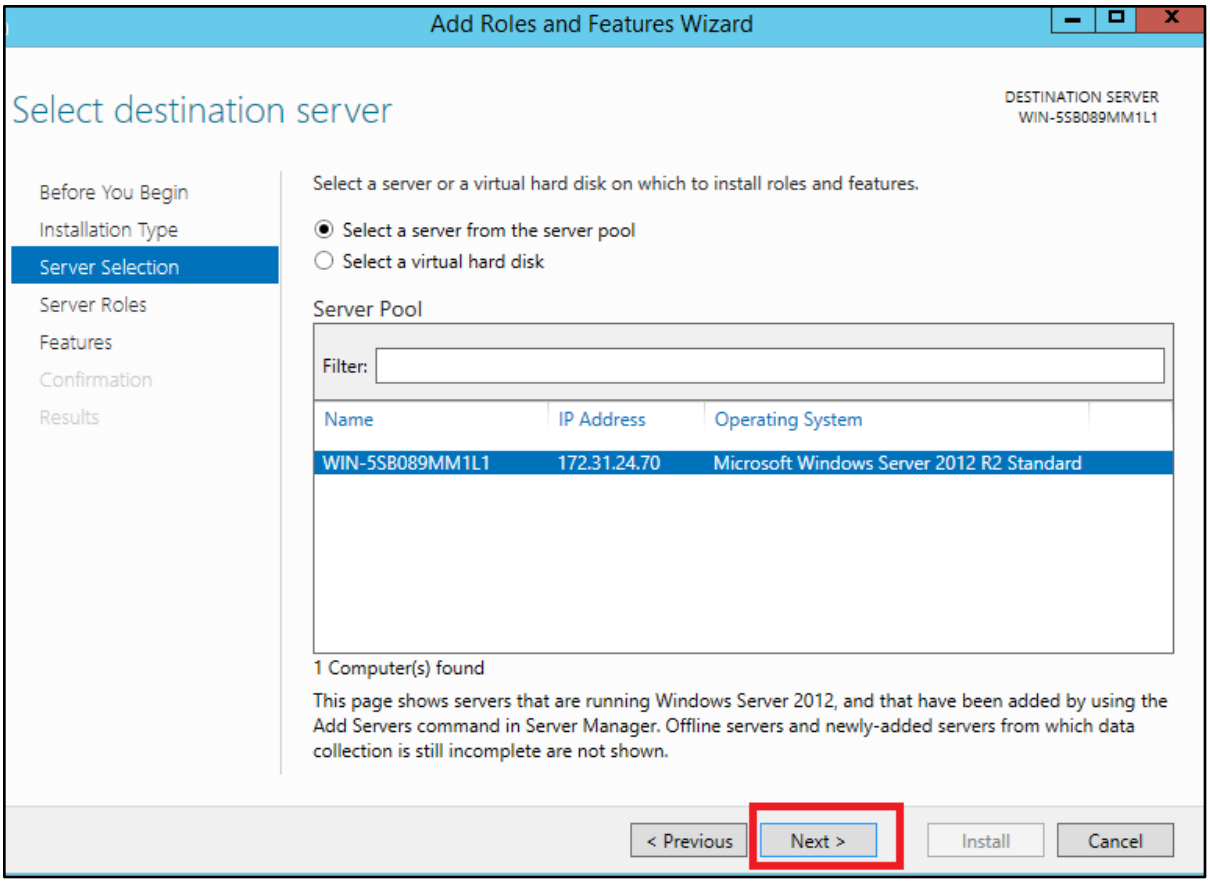
- Click on **Next** on the **Select destination server** page



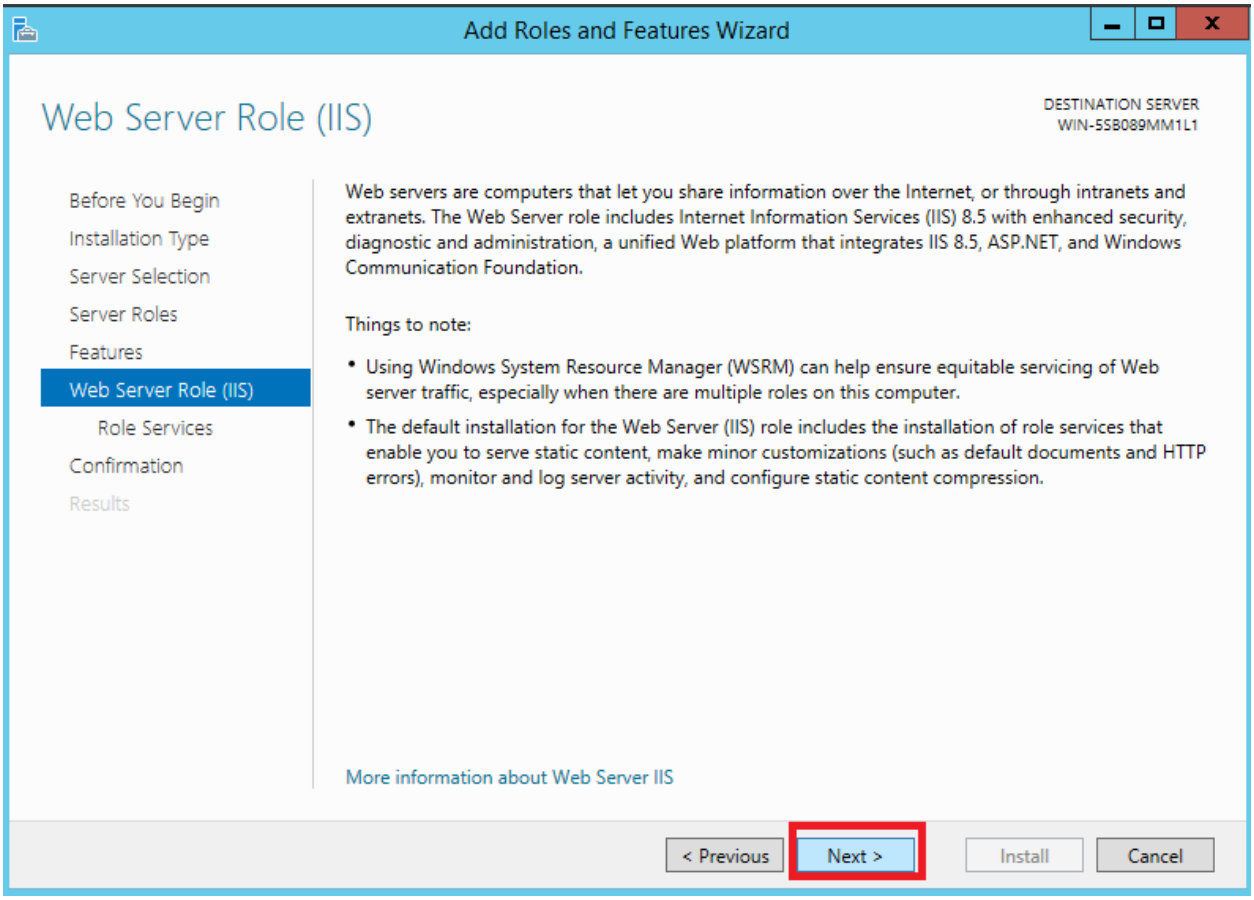
- On the **Select server roles** page, select **Web Server (IIS)**, and a window pops up showing the additional features required for the Web Server (IIS)
- Click on **Add Features** and then on **Next**


Add Roles and Features Wizard
Select server roles
DESTINATION SERVER
WIN-5SB089MM1L1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select one or more roles to install on the selected server.
Roles
Application Server
DHCP Server
DNS Server
Fax Server
File and Storage Services (2 of 12 installed)
Hyper-V
Network Policy and Access Services
Print and Document Services
Remote Access
Remote Desktop Services
Volume Activation Services
Web Server (IIS)
Windows Deployment Services
Windows Server Essentials Experience
Windows Server Update Services
Description
Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.
< Previous
Next >
Install
Cancel

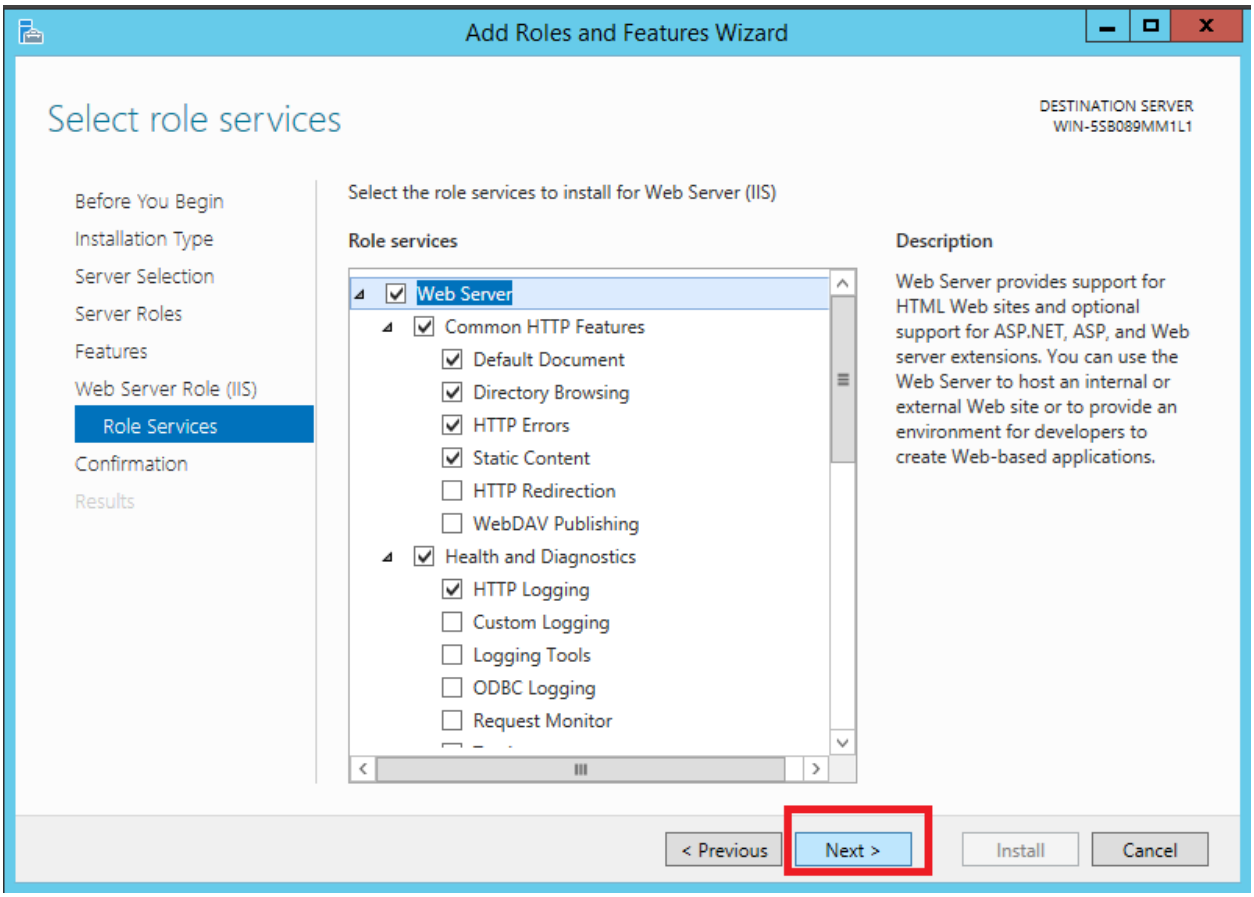

Add Roles and Features Wizard
Add features that are required for Web Server (IIS)?
The following tools are required to manage this feature, but do not have to be installed on the same server.
Web Server (IIS)
Management Tools
[Tools] IIS Management Console
Include management tools (if applicable)
Add Features
Cancel



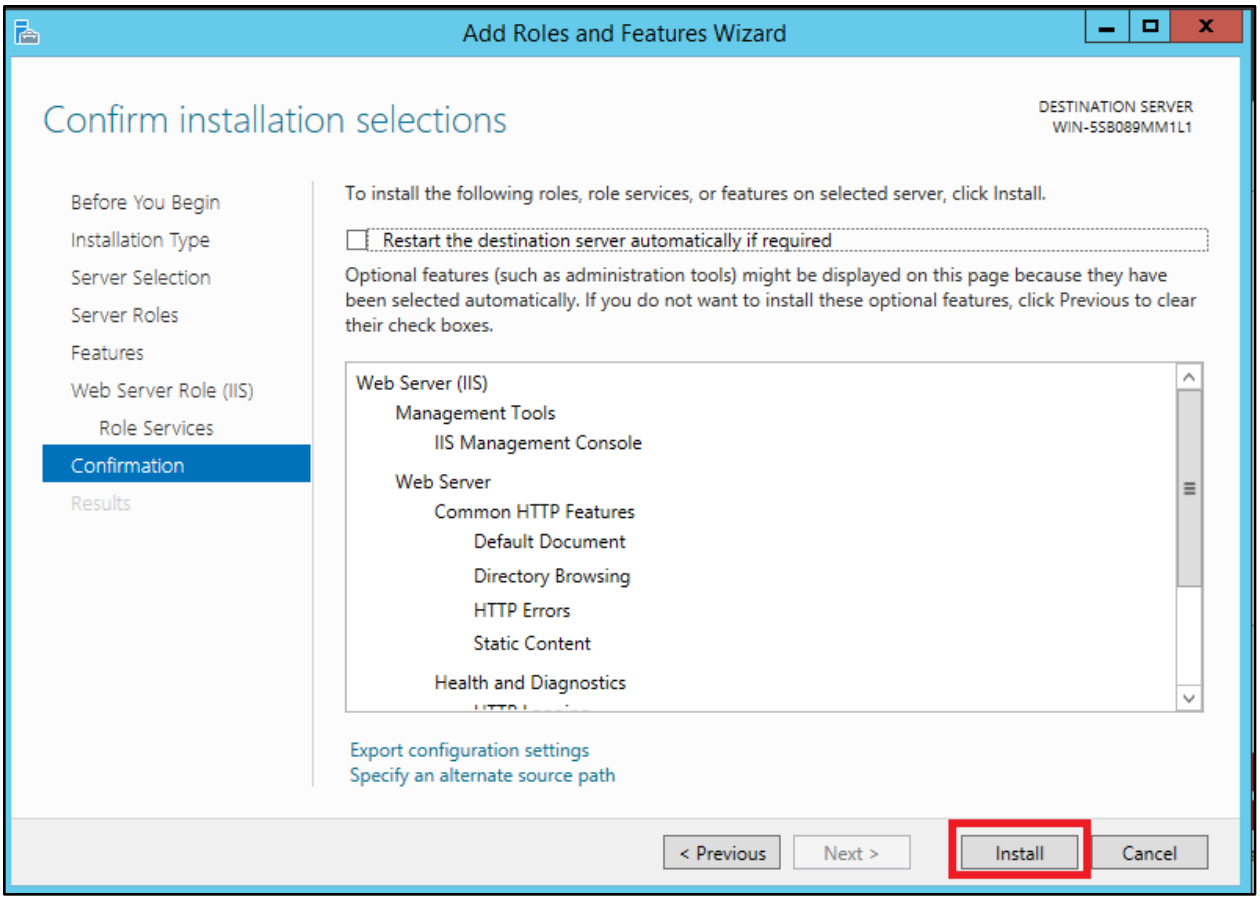
- On the **Web Server Role (IIS)** page, click on **Next**



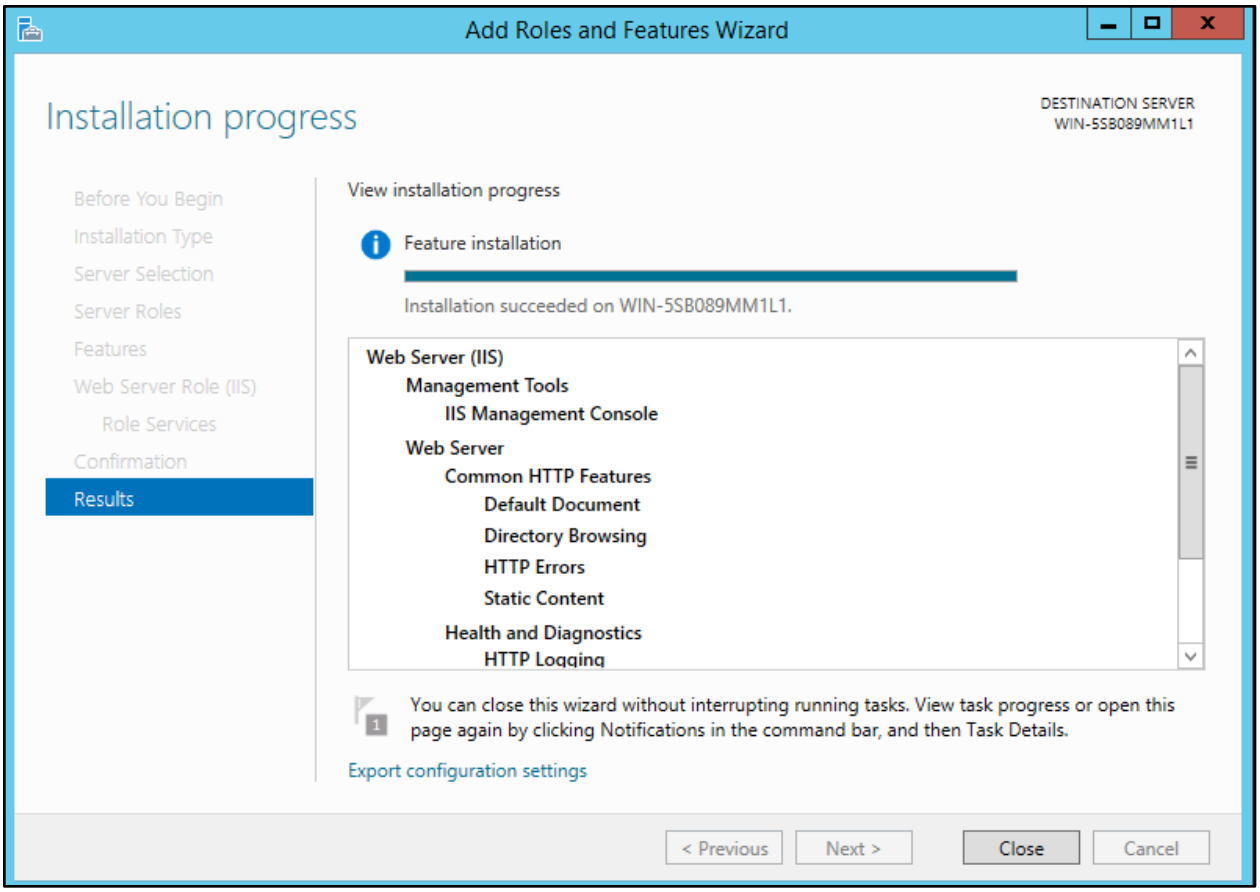
- In **Role services**, keep the default selection and click on **Next**



- On the **Confirm installation selections** page, click on **Install**

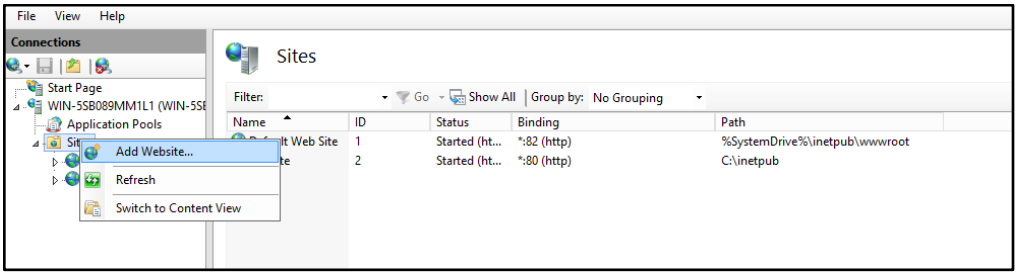


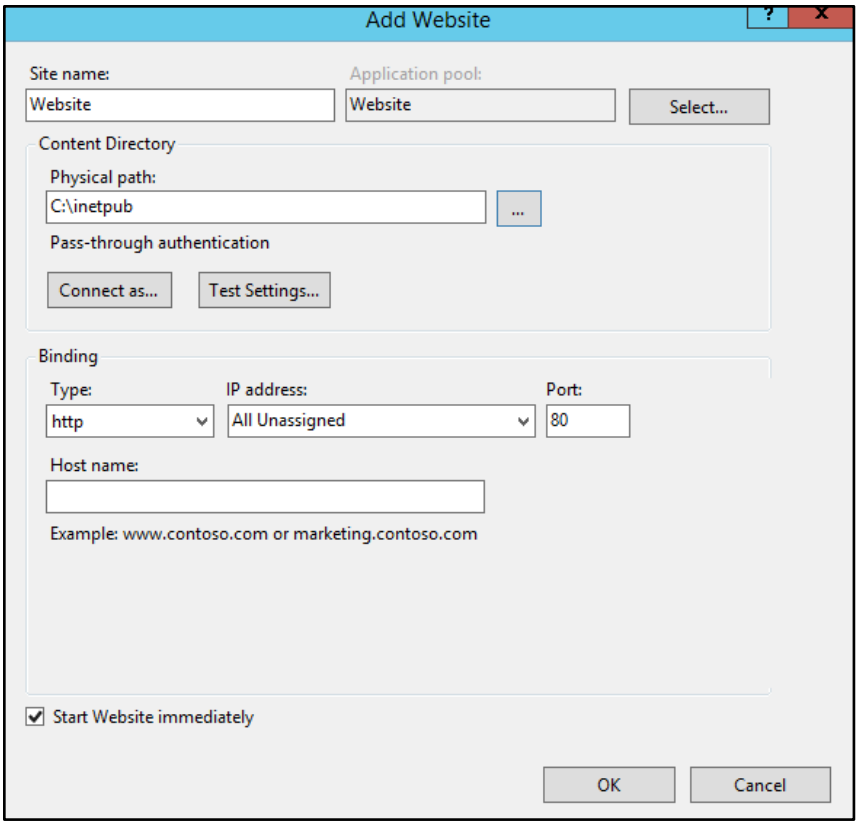
- After a couple of minutes, the IIS role will be installed successfully

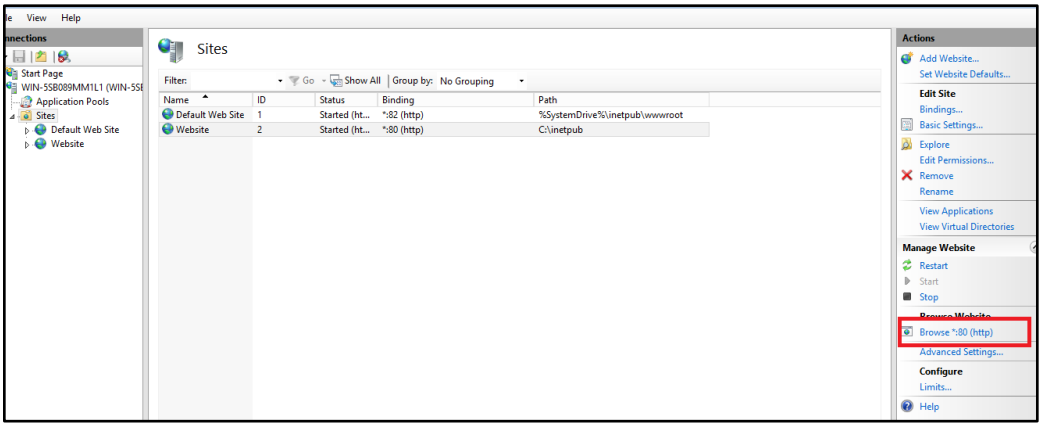


Step 3: Create a static website and check on a localhost

- Add website using the screenshots given below:

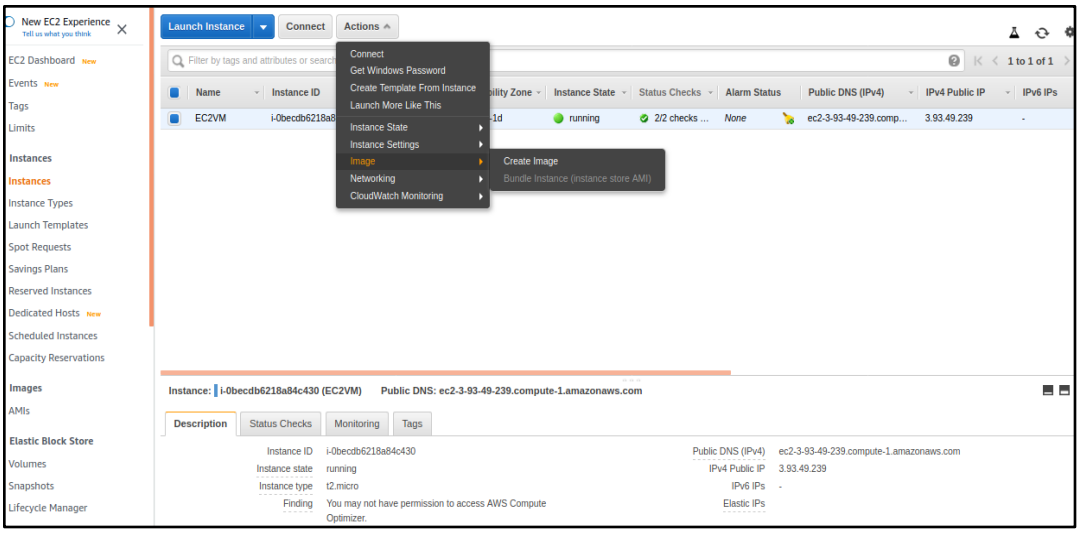


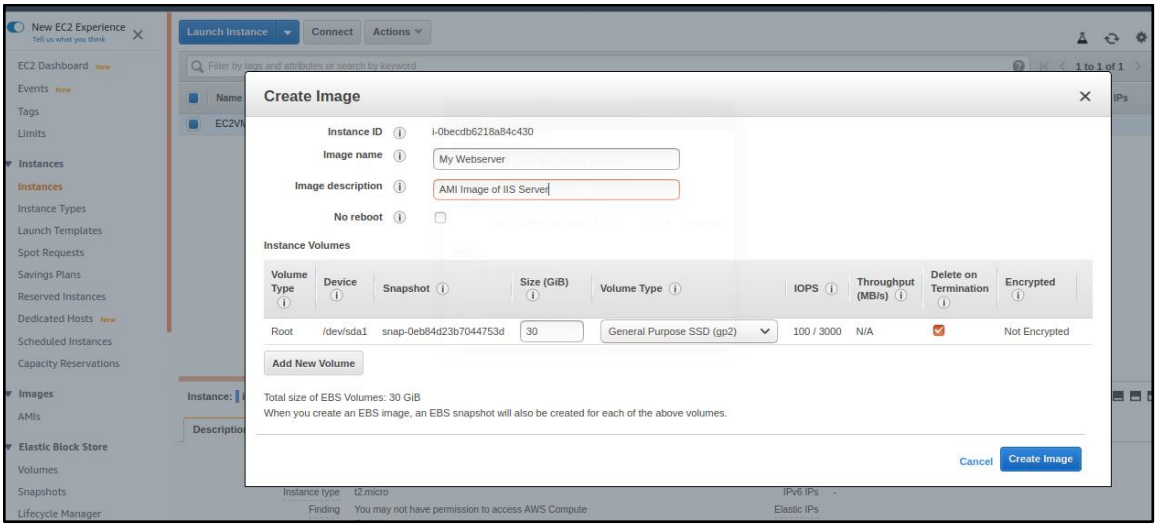




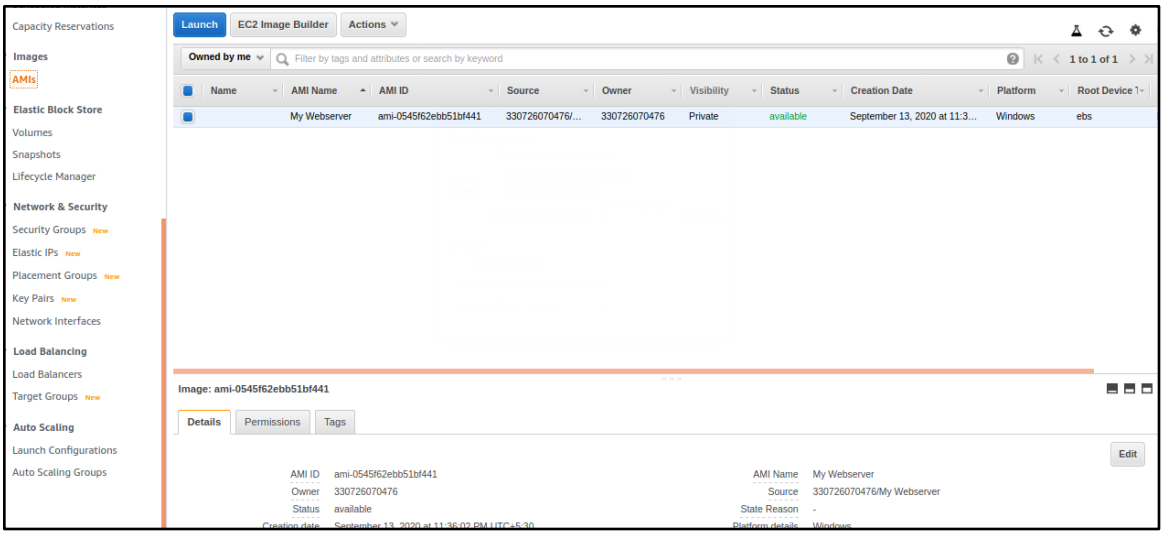
Step 4: Create an image of the machine and save the AMI

- Go to EC2 instance and select the **instance**
- Go to the drop-down option named **Actions>Image>select Create Image**



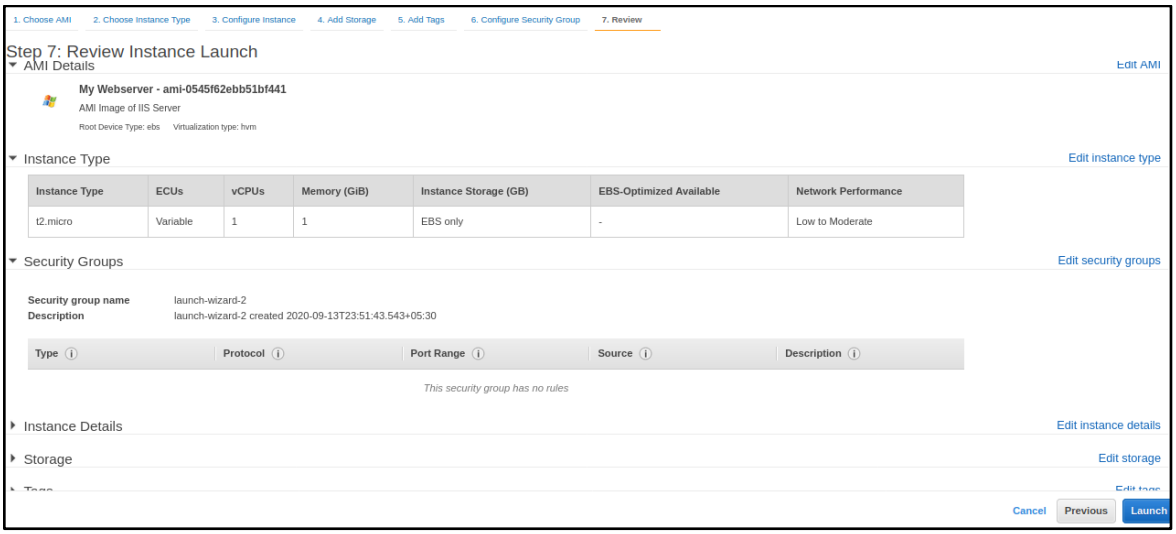


- Go to to the new image and check its status
- See the new AMI under **Images/AMI**
    - Reuse this image whenever you want to provide a similar instance, which will save time while installing application binaries.
    - We can reuse such custom AMIs during auto-scaling and provisioning instances using Elastic Beanstalk.



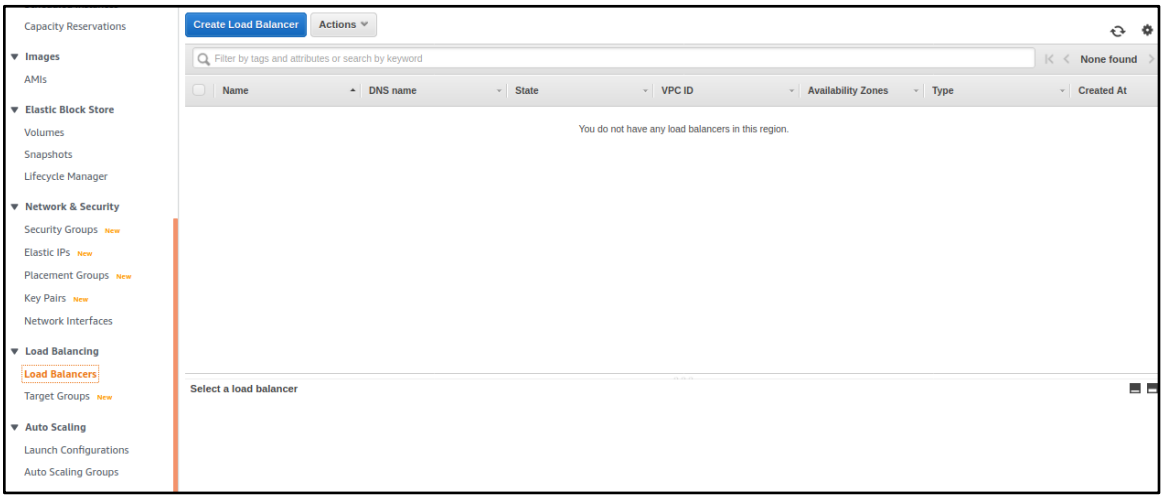
Step 5: Create a new instance using the AMI you have saved

- To launch the instance, select the AMI and click on **Launch**

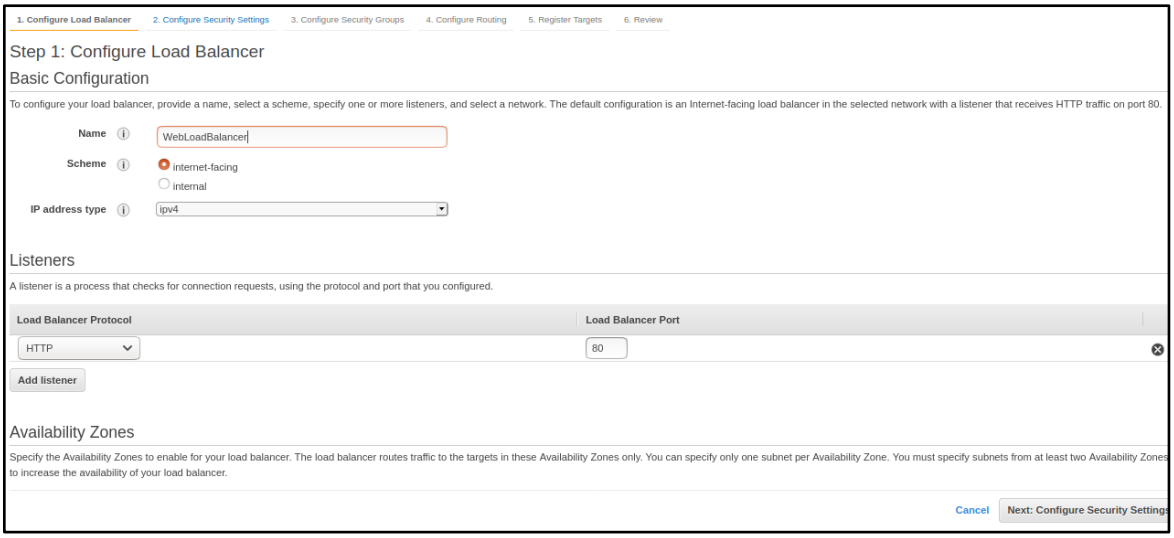


Step 6: Create a Load Balancer and attach the instances mentioned above

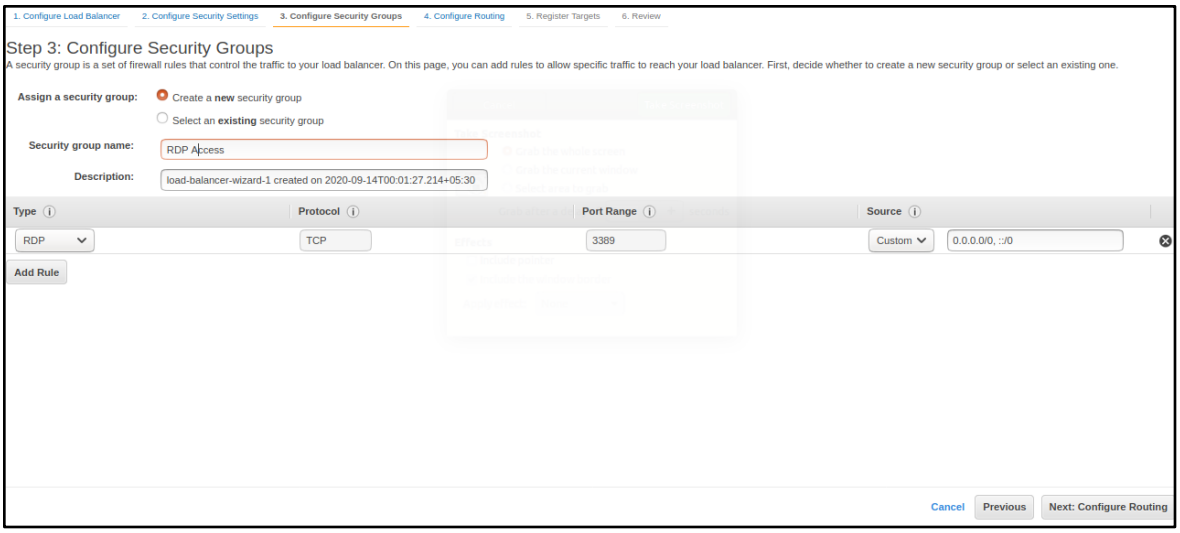
- On the navigation pane, select a Load Balancer under **Load balancing**



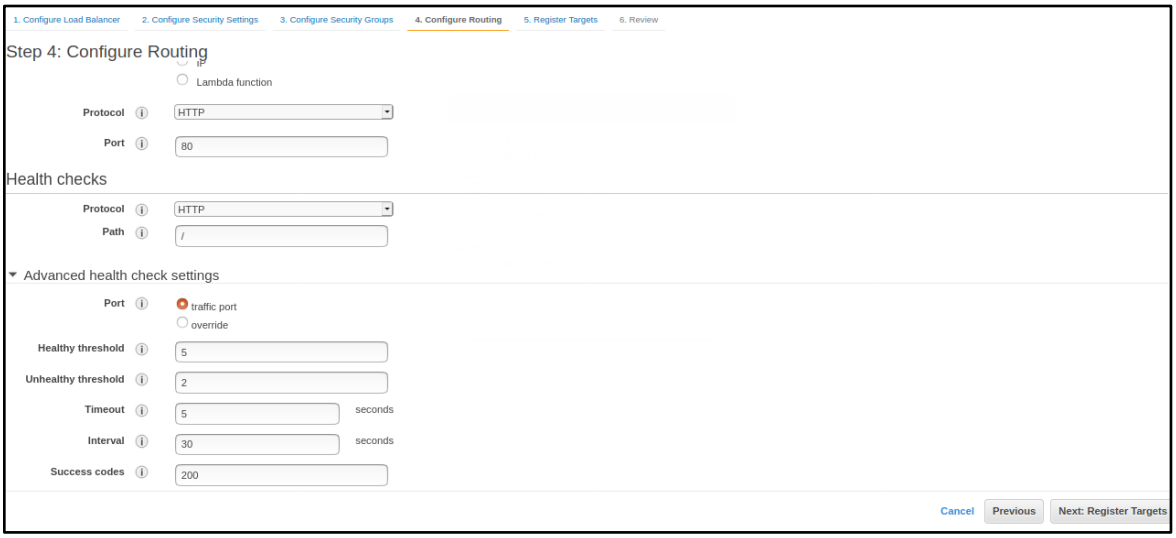
- Type a name for your Load Balancer, and select **Next: Configure Security Settings**



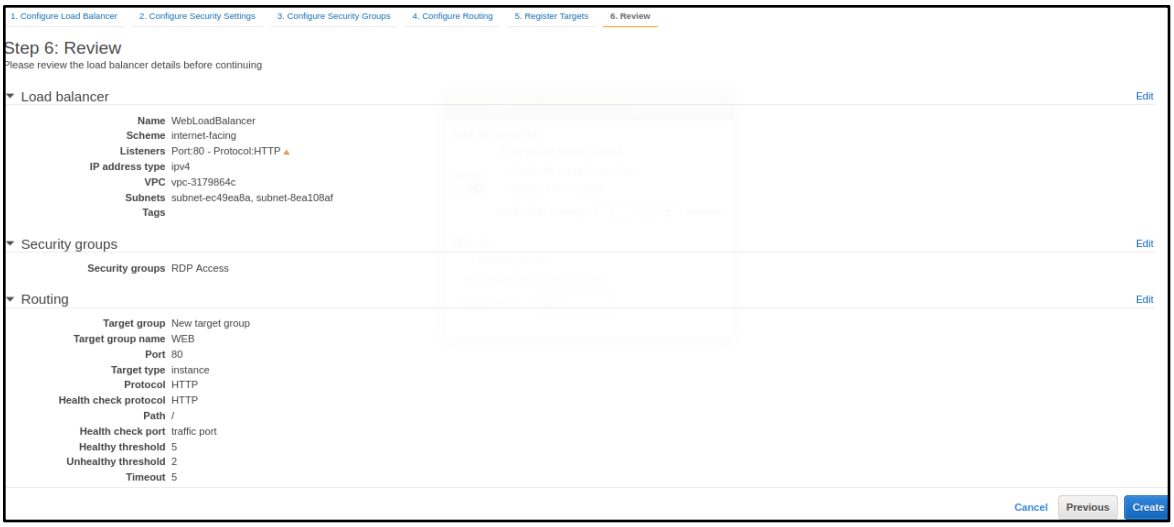
- Create a new security group to allow RDP access and select **Next: Configure Routing**

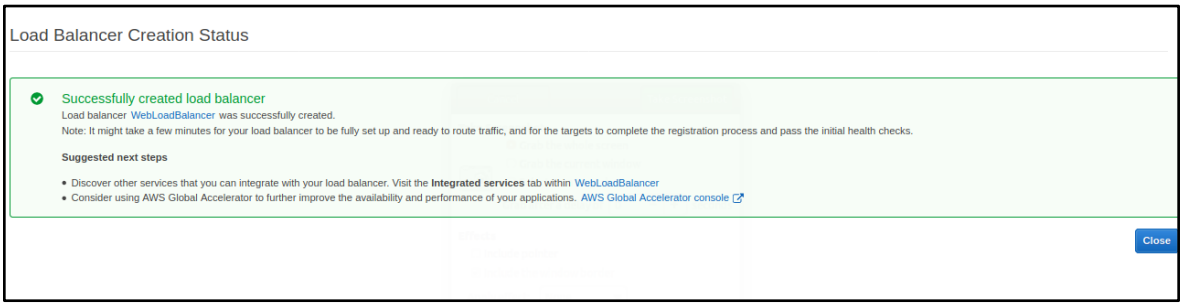


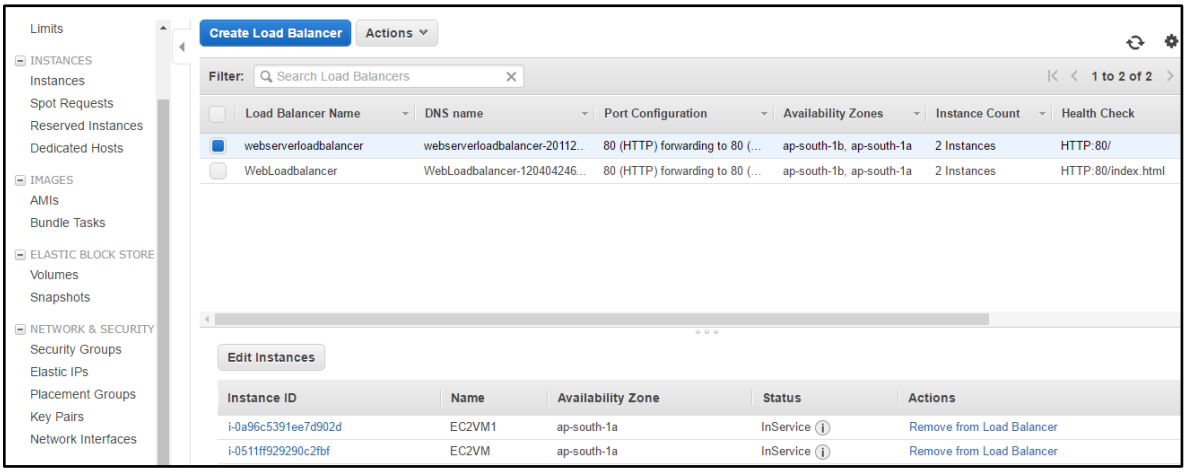
- Keep the default security settings



- Review the configuration and select **Create**
  - ELB is created successfully
  - Check the ELB settings and status of the instance

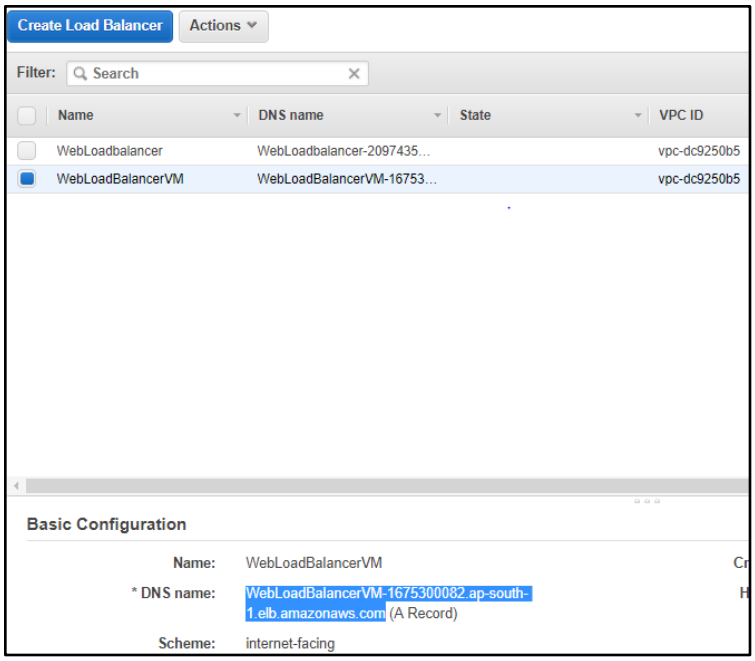


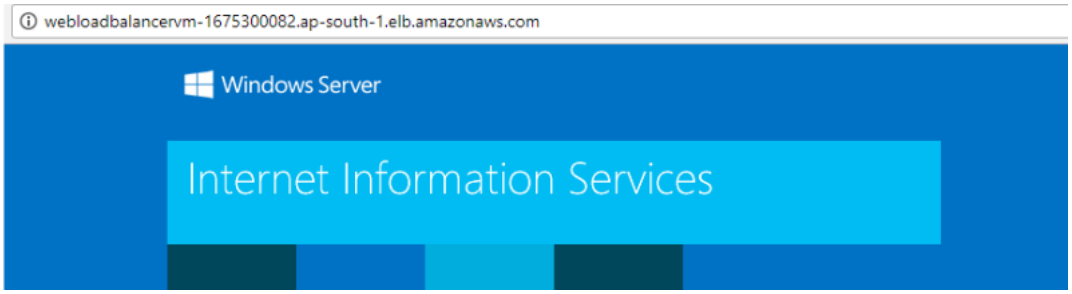




Step 7: Check the DNS name on the browser

- Copy the DNS Name in the address bar of your browser


Create Load Balancer
Actions
Filter:
Search
Name
DNS name
State
VPC ID
WebLoadbalancer
WebLoadbalancer-2097435...
vpc-dc9250b5
WebLoadBalancerVM
WebLoadBalancerVM-16753...
vpc-dc9250b5
Basic Configuration
Name:
WebLoadBalancerVM
* DNS name:
WebLoadBalancerVM-1675300082.ap-south-1.elb.amazonaws.com (A Record)
Scheme:
internet-facing


webloadbalancervm-1675300082.ap-south-1.elb.amazonaws.com
Windows Server
Internet Information Services