**AWS Task-4**

**Task Description:**

Launch an EC2 instance (Linux and Windows) along with a web server. Then, create an EBS volume of 5 GB, attach it to an EC2 machine (Linux and Windows), and take a snapshot. Finally, create an EBS volume using the taken snapshot.

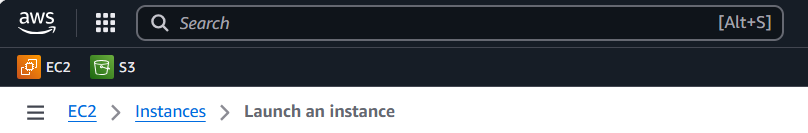
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1. **Launching EC2 Instance – Windows Part: -**
   1. Login to AWS Console using my AWS login credentials.
   2. Creating a instance by using “**Launch Instances**” option.

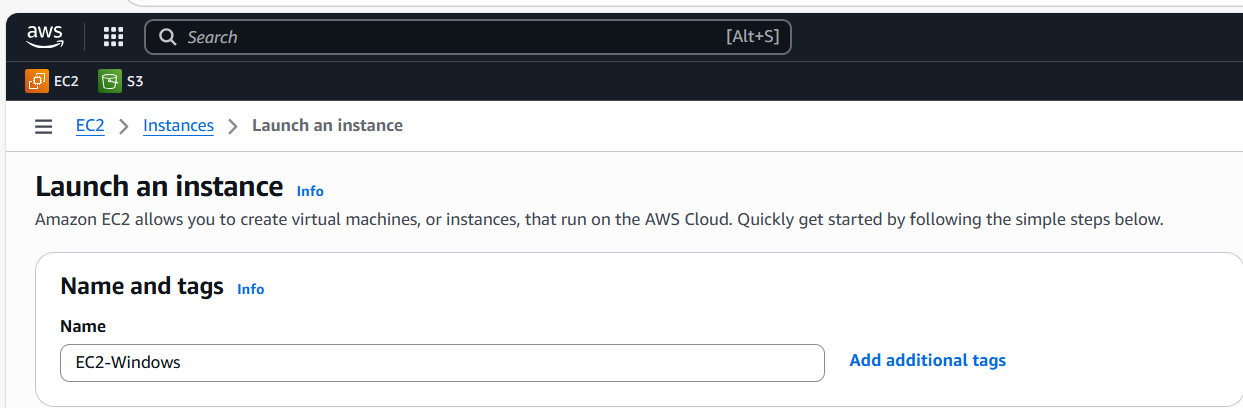
**Go to EC2 -> Instances ->** Click **Launch instances** (shown below)

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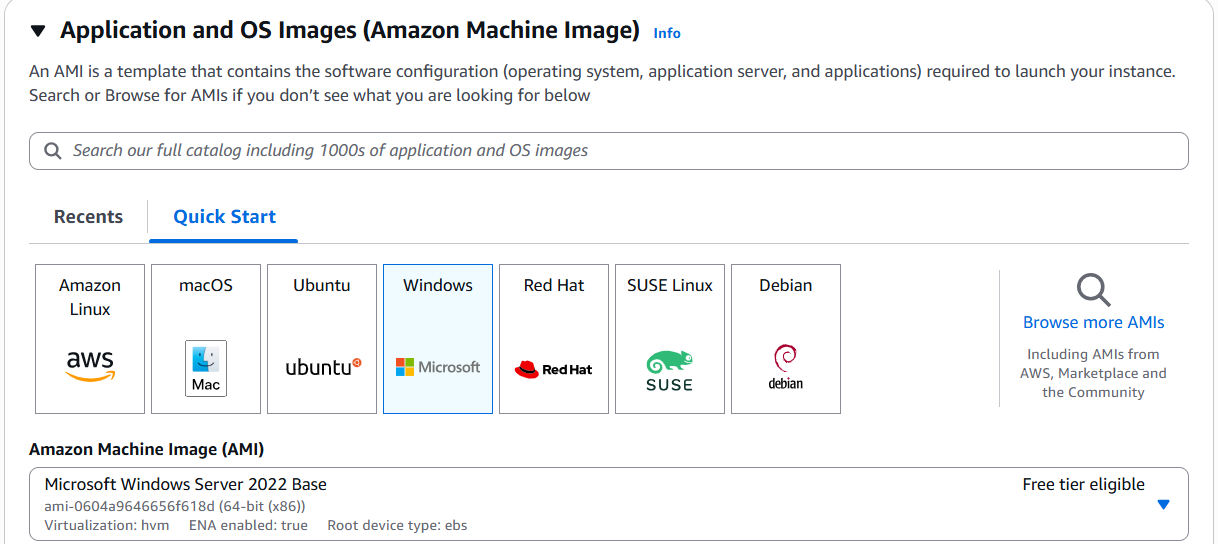
* 1. Once clicked “Launch Instances” and do the below configurations for VM that you want to create.

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* 1. In Name section -> Give EC2 VM name as “**EC2-Windows**”.

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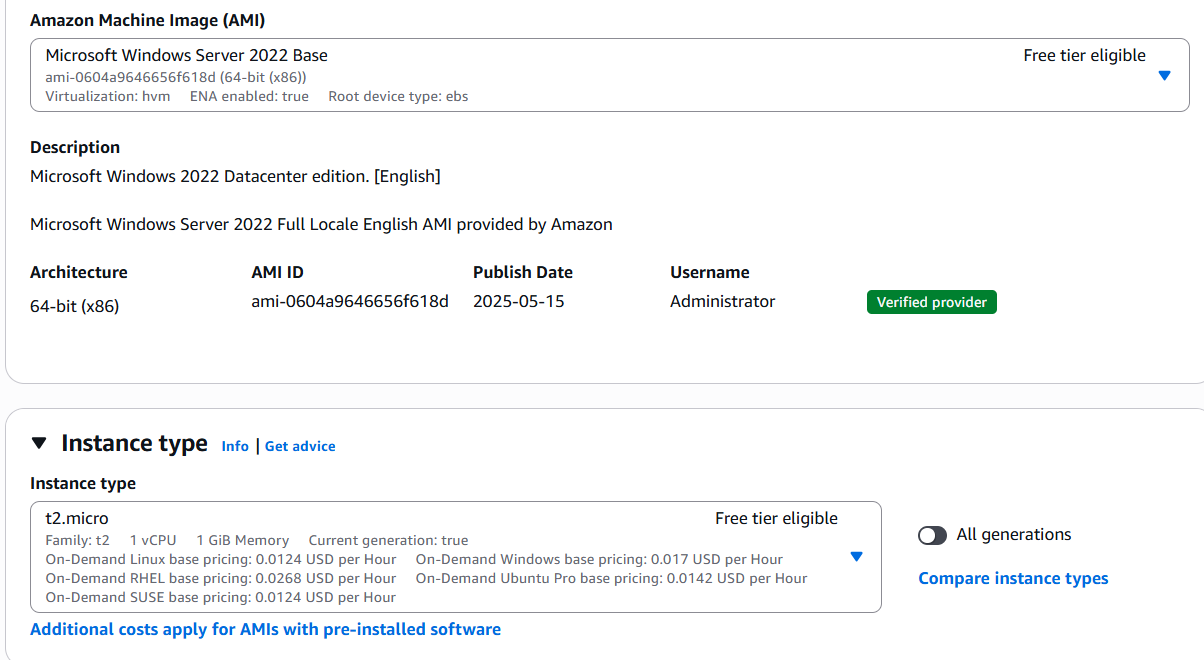
* 1. Choose AMI (i.e) OS -> Select “**Windows”**

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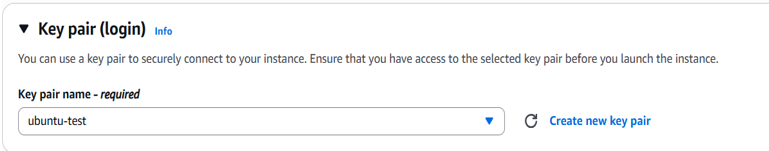
* 1. Select OS Version for Windows and it should be Free tier eligible is

**“** **Microsoft Windows Server 2022 Base “**.

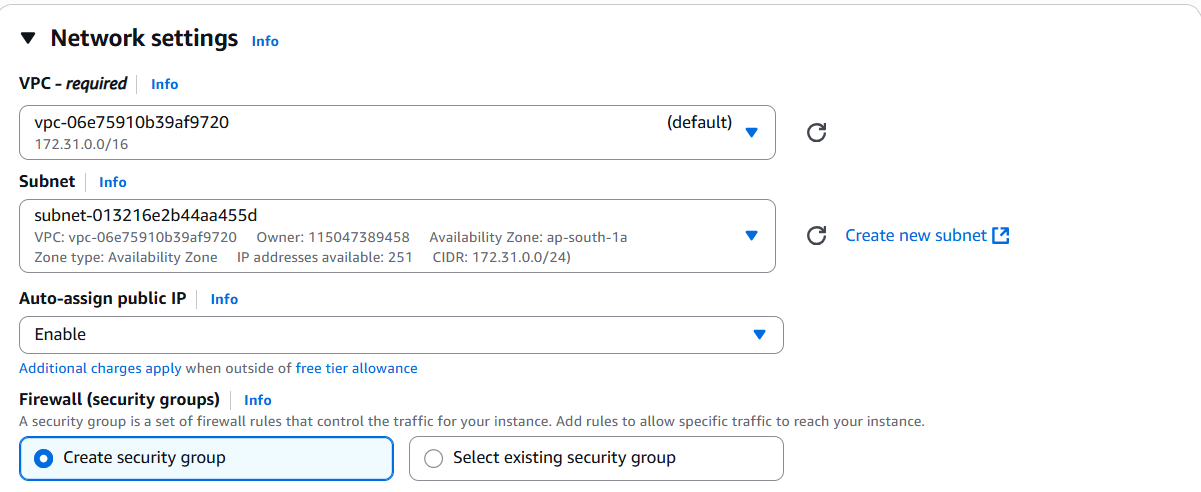
Select Instance and it should be Free tier eligible is **“** **t2.micro “**

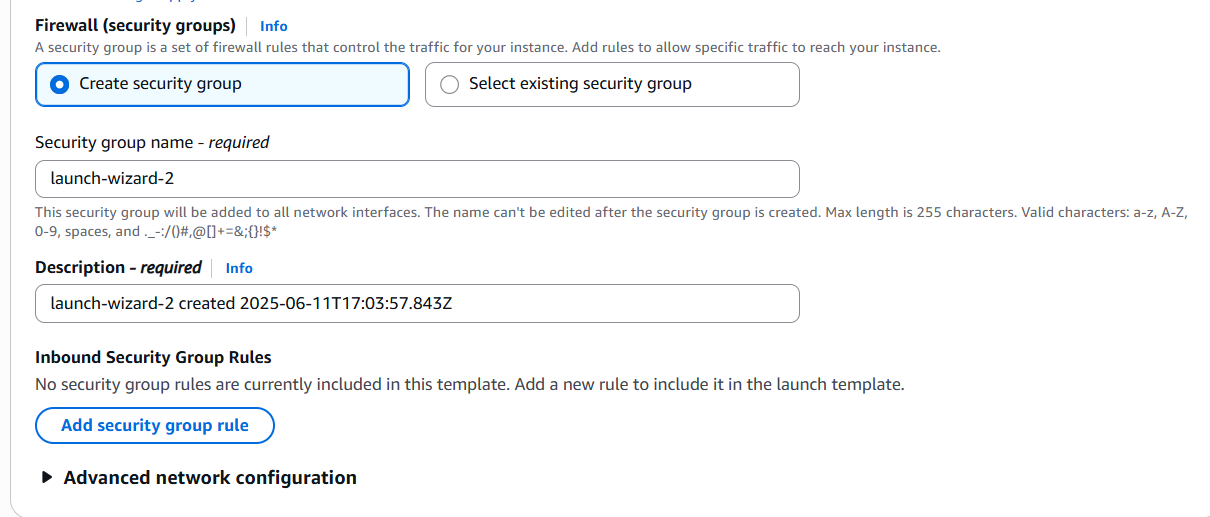
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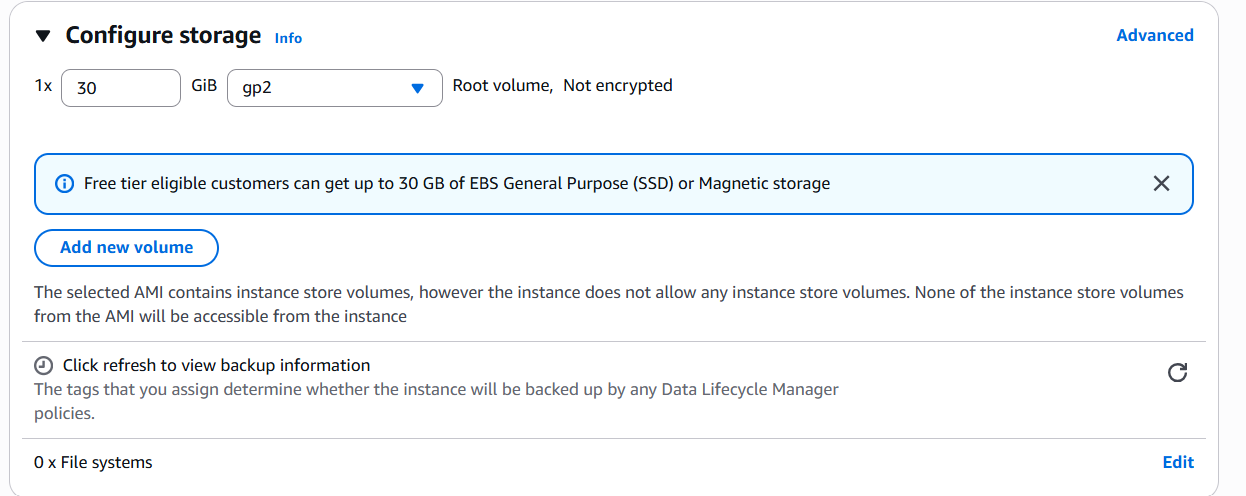
* 1. For SSH Authentication – Select the already generated **key pair is “ubuntu-test”**



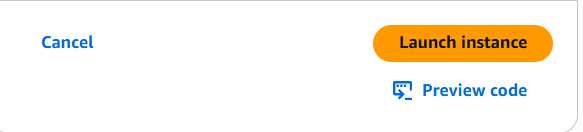
* 1. In the Network settings for windows: “Choose default option”

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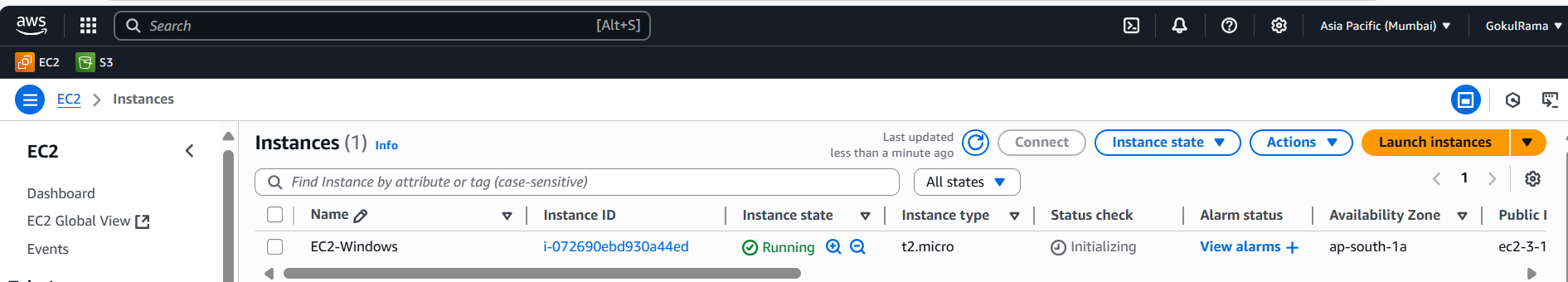
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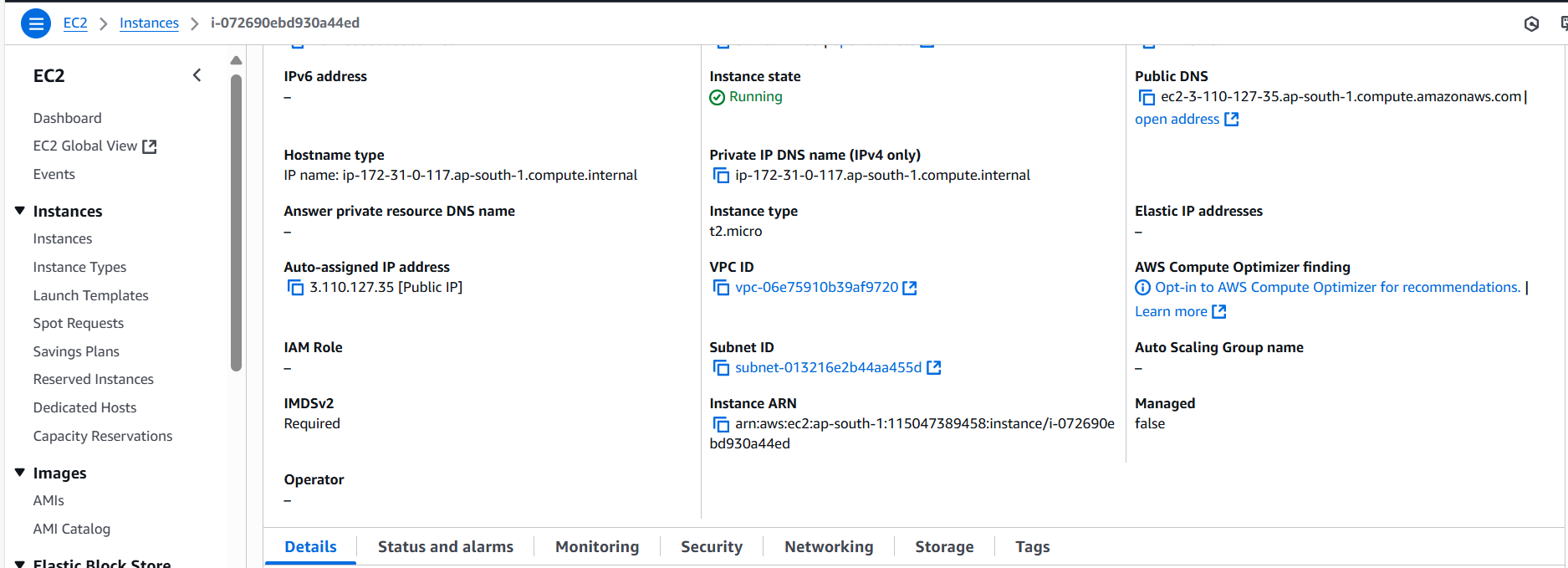
1.9 Click **Launch Instance**

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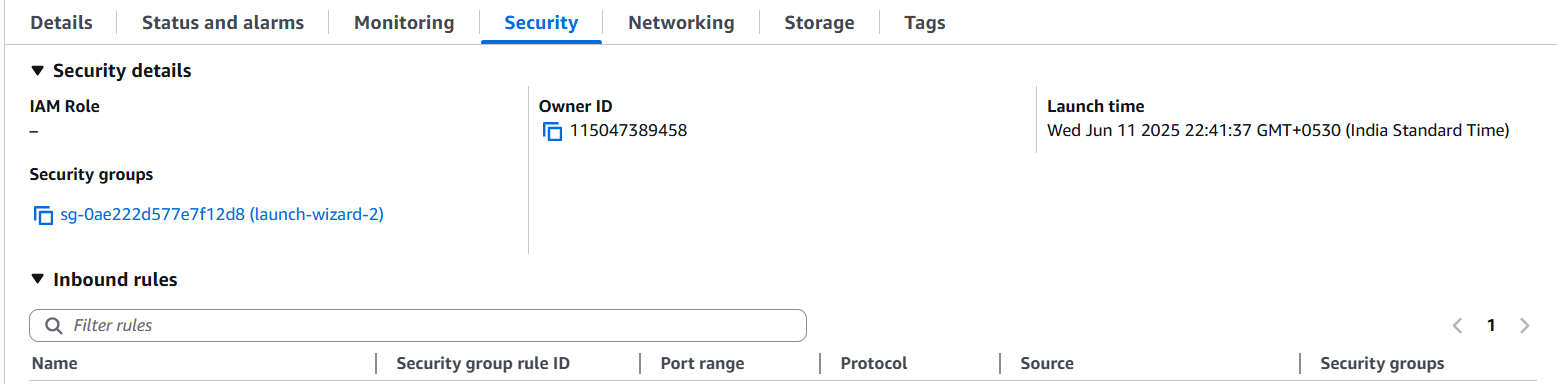
* 1. Once instance has been launched for windows look like below and instance

state seems like “ **Running** ”

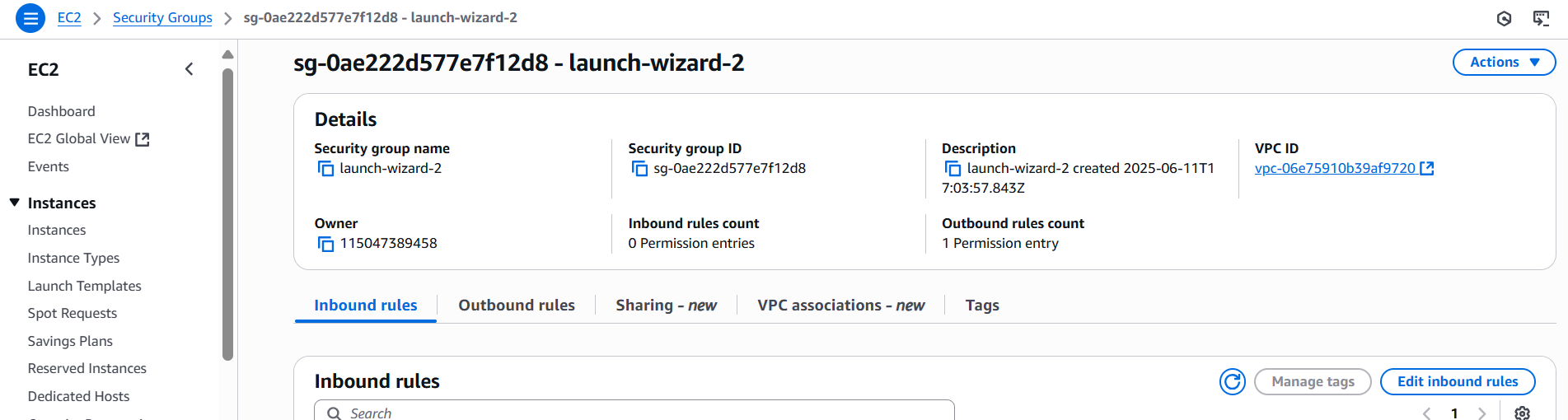
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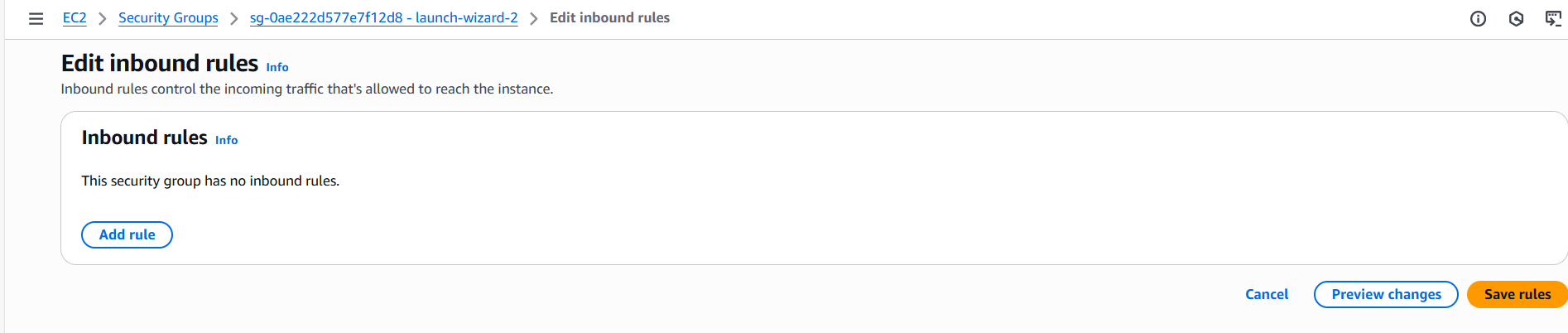
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* 1. Select respective **EC2 instance** -> Go to **Security ->** Choose corresponding **security groups.**

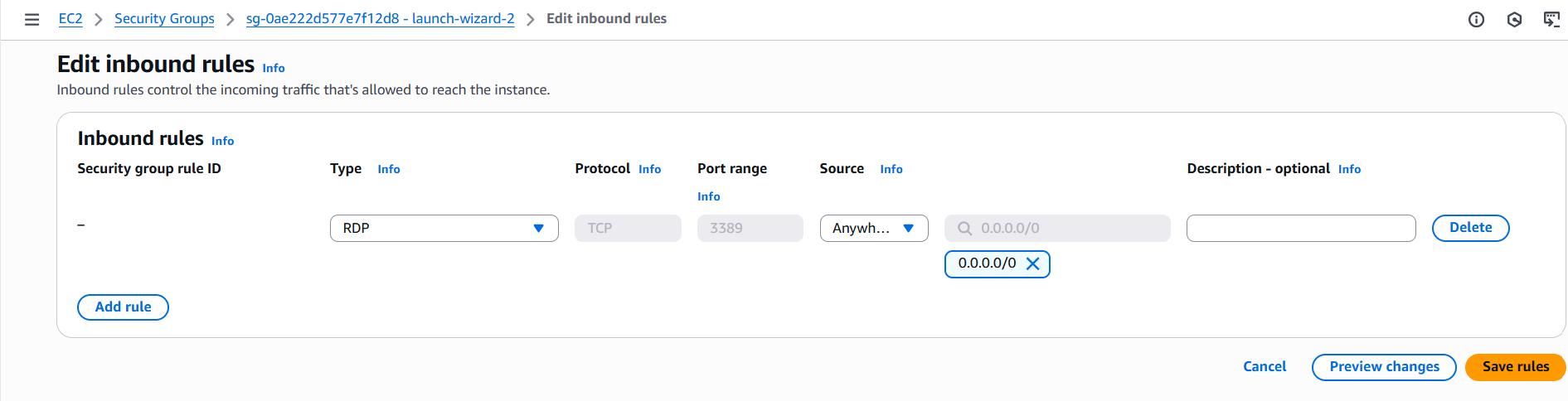
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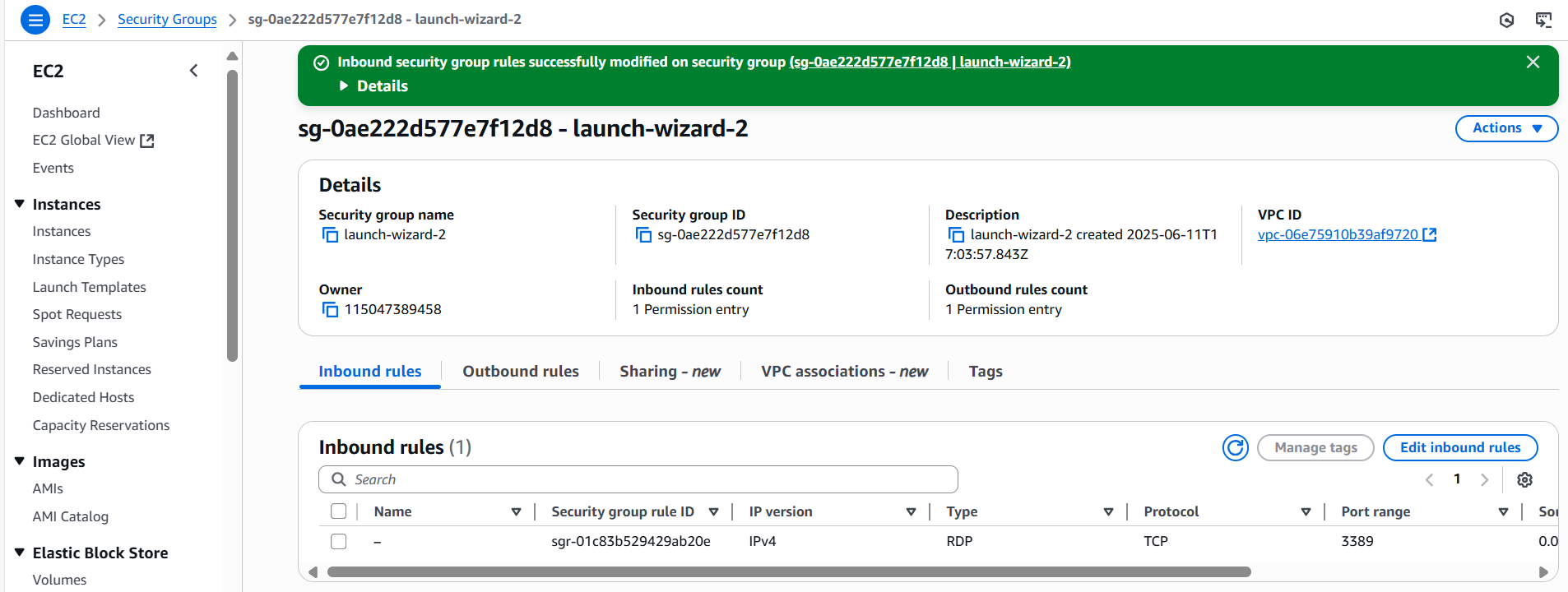
1.11 In the **respective security group** -> Click **Edit Inbound Rules**

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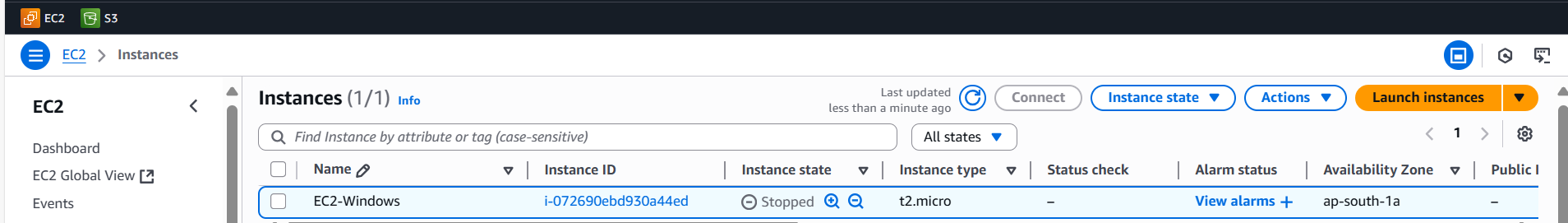
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* 1. Add the **inbound rule (Incoming traffic) ->** For **windows** (Add RDP port and port range is 3389 and allow traffic from anywhere from the internet) **-> Click Save Changes**

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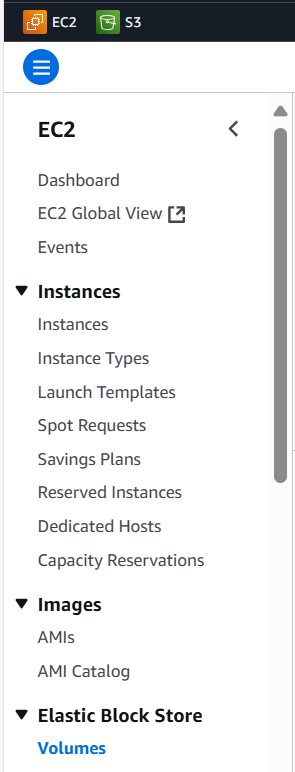
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* 1. **Stop the EC2 instance** by using **Stop instance option under Instance state**.

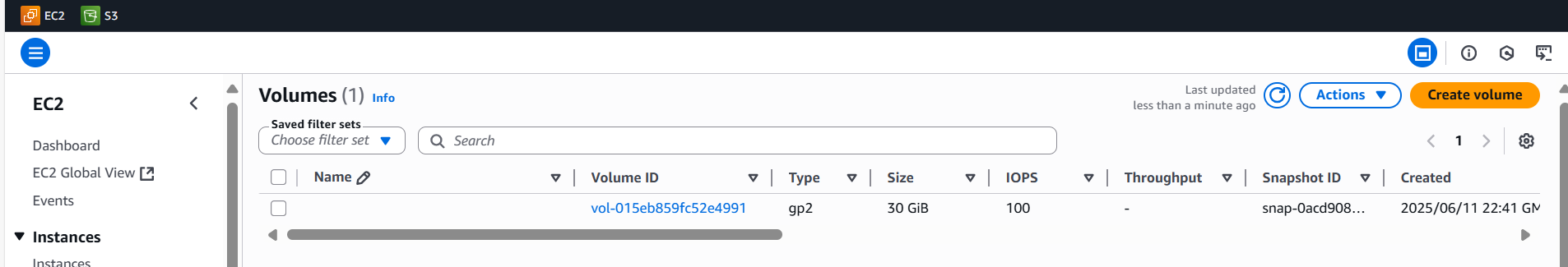
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1. **Creating EBS Volume: -**

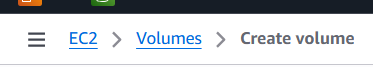
**2.1** Go to **Elastic Block Store ->** Select **Volumes.**

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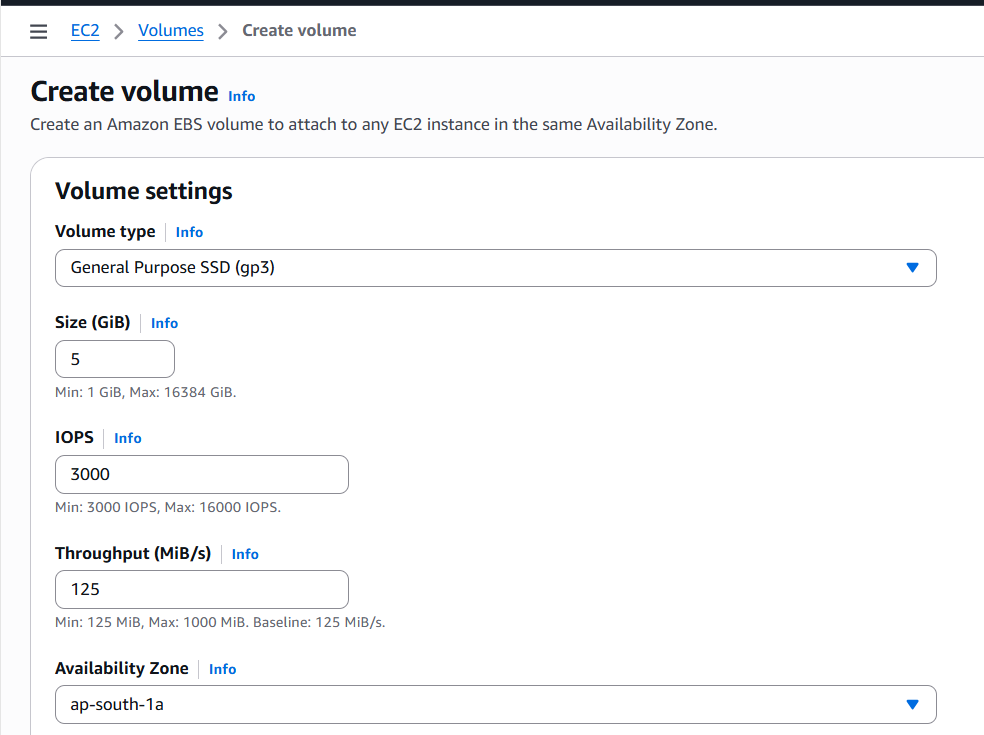
* 1. Click **Create Volume**

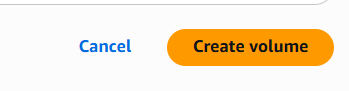
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* 1. Once **Created Volume looks like below,**

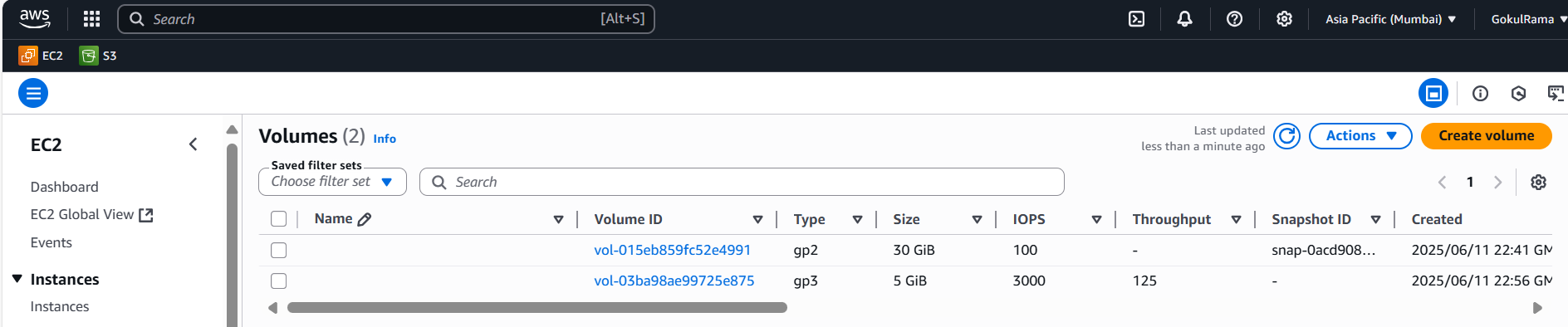


* 1. **In Create Volume,**
* Choose **Volume type -> General Purpose SSD (gp3).**
* **Size – 5 GiB.**
* Choose **Availability Zone – ap-south-1a (Note – Availability Zone of EBS and EC2 instance should be same only).**
* **Remaining option should be default only.**
* Click **Create Volume.**

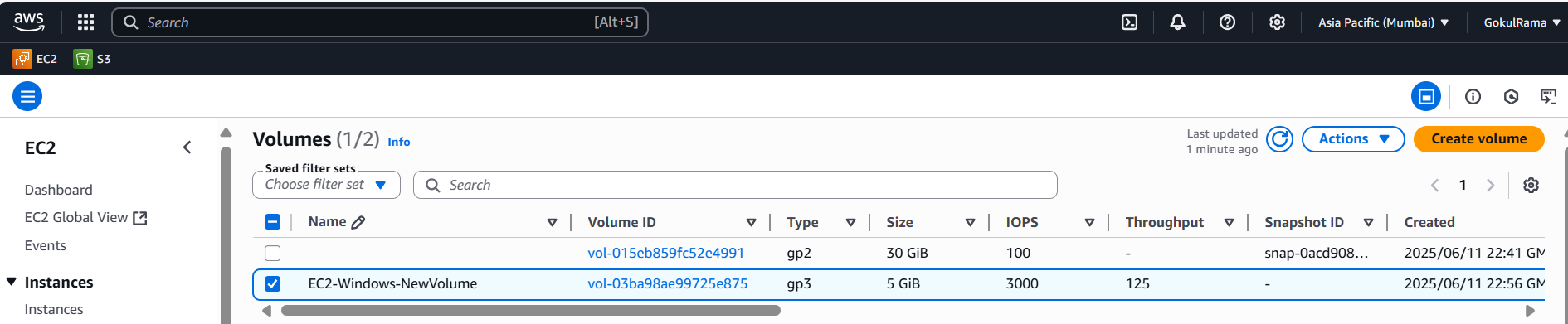
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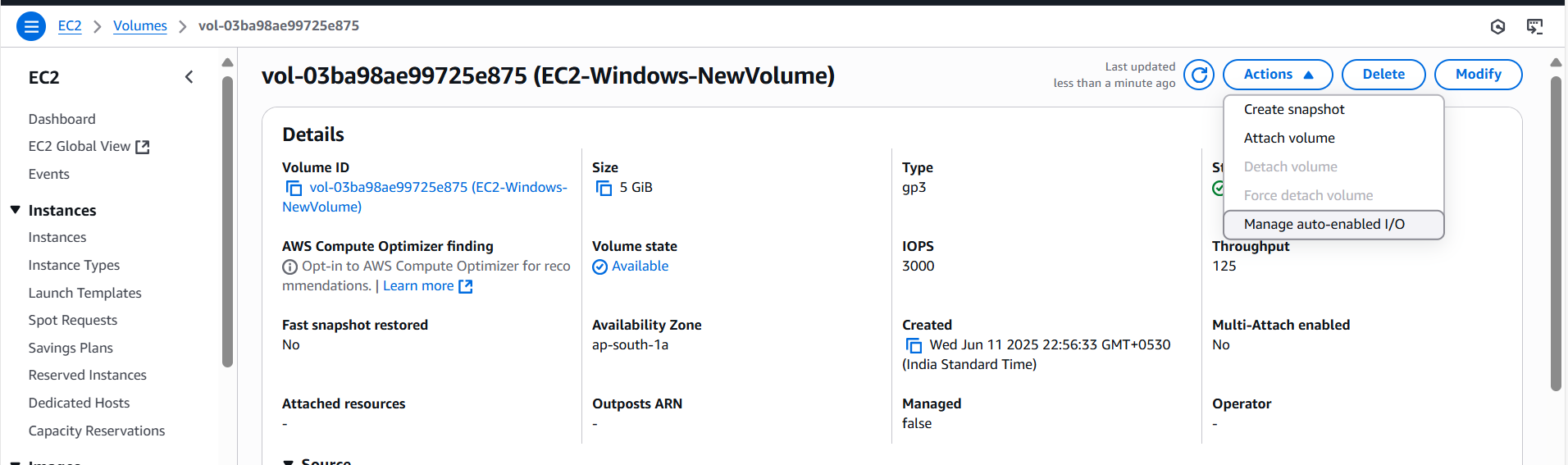
* 1. Now the **New Volume has been created** for **5 GB.**

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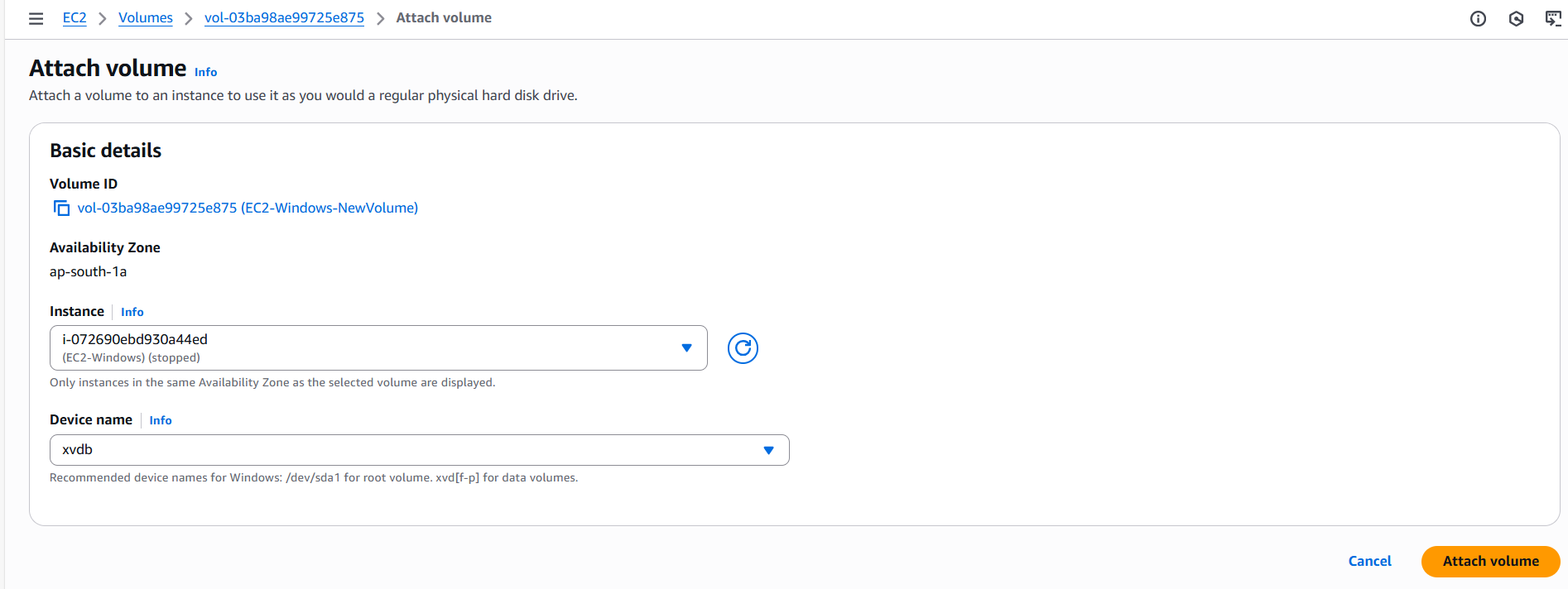
* 1. Renamed **the New Volume is EC2-Windows-NewVolume.**

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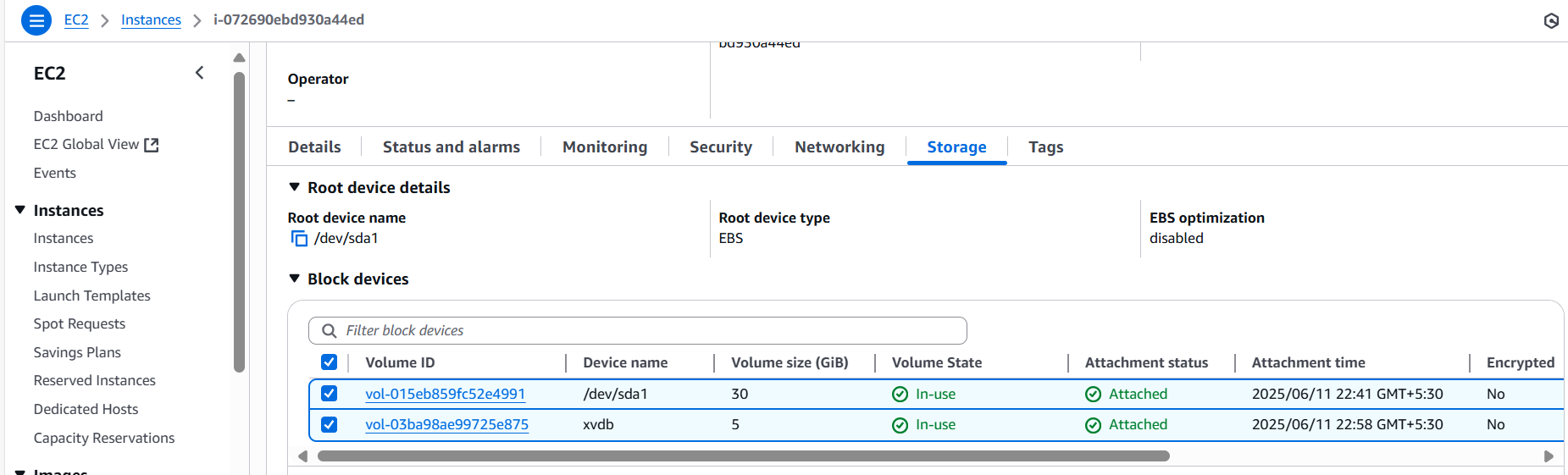
* 1. **Attach the New Volume (EC2-Windows-NewVolume) to EC2 instance by using Attach Volume option [ Actions -> Attach volume]**

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* 1. **Attach Volume configuration is,**
* Select **Instance** – Choose **respective EC2 instance.**
* **Device name** – Choose **xvdb** (any device names its optional)
* Click **Attach volume.**

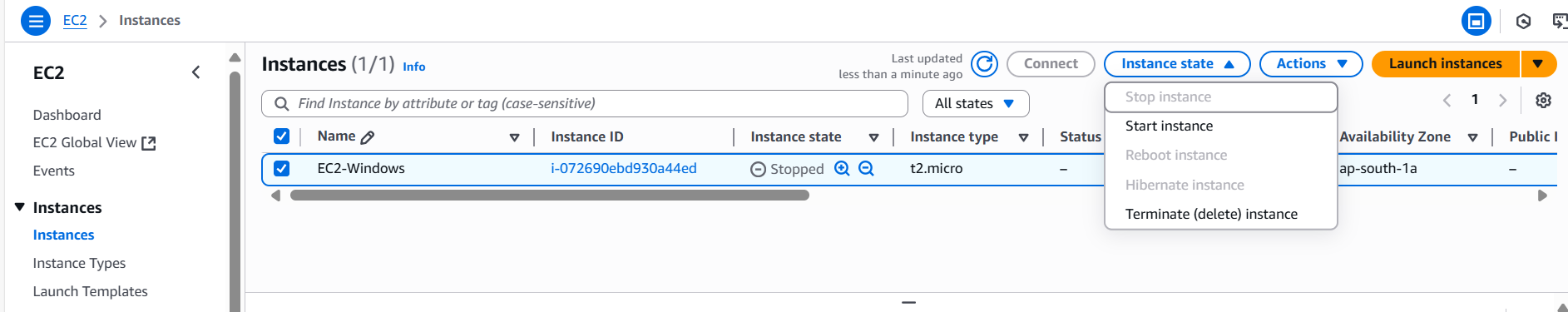
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* 1. Once the **New Volume has been attached to EC2 instance -> Go back to EC2 instance screen -> Open respective EC2 instance -> Goto Storage -> See the New Volume [xvdb] is available in EC2 instance.**

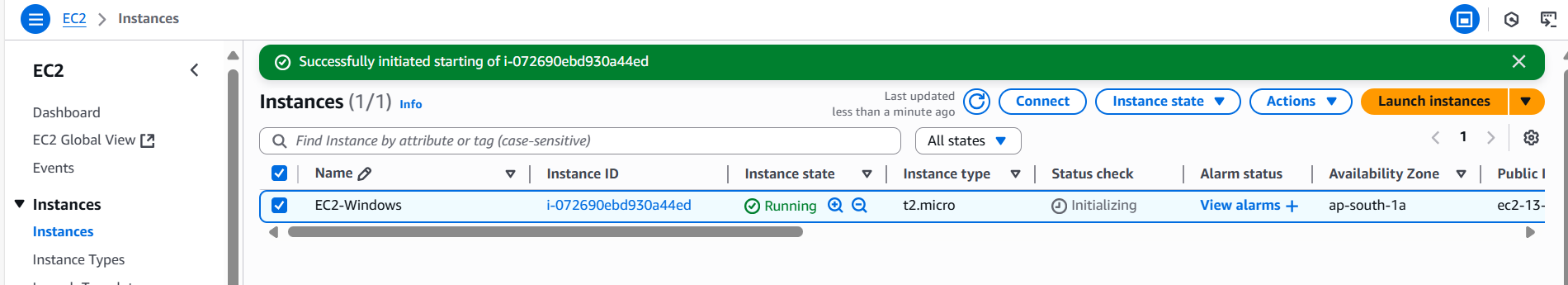
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* 1. Select respective **EC2 instance (EC2-Windows)** -> Go to **instance state** ->

select **Start instance**.

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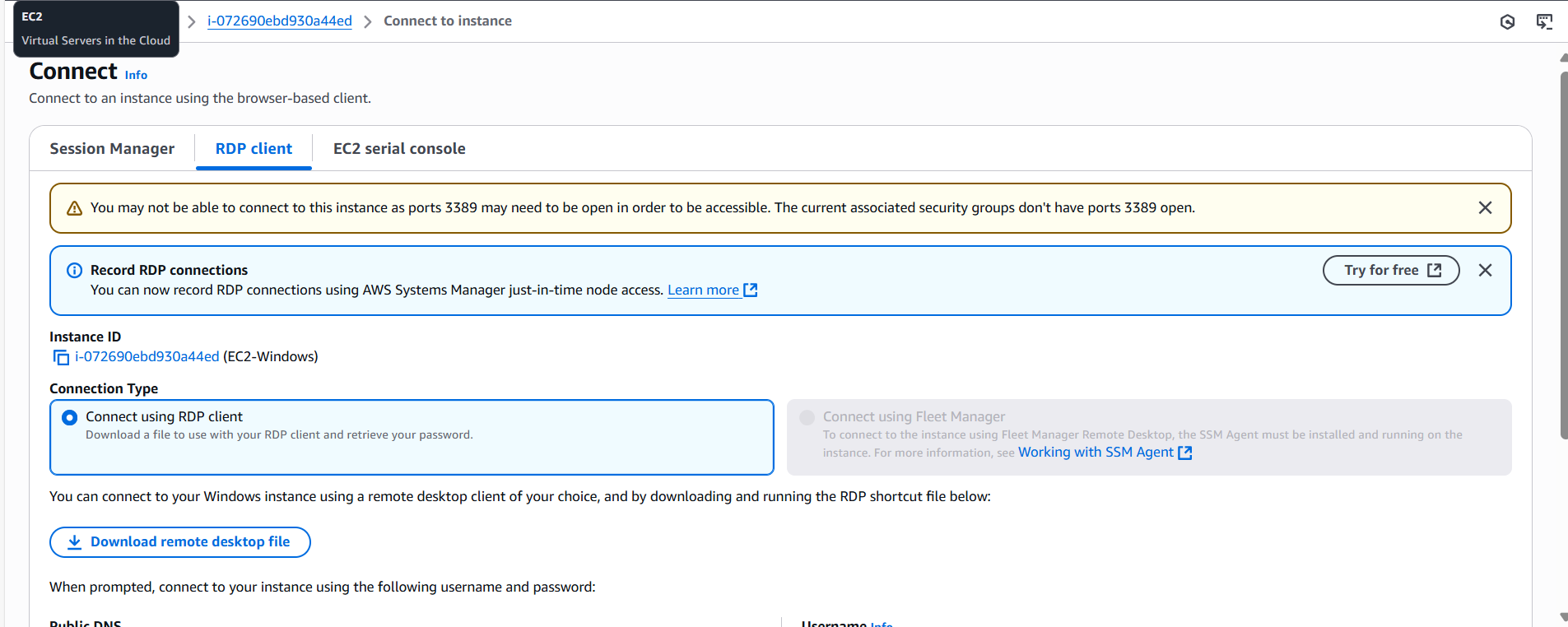
* 1. Once instance has been launched for windows look like below and instance state seems like “**Running**”.

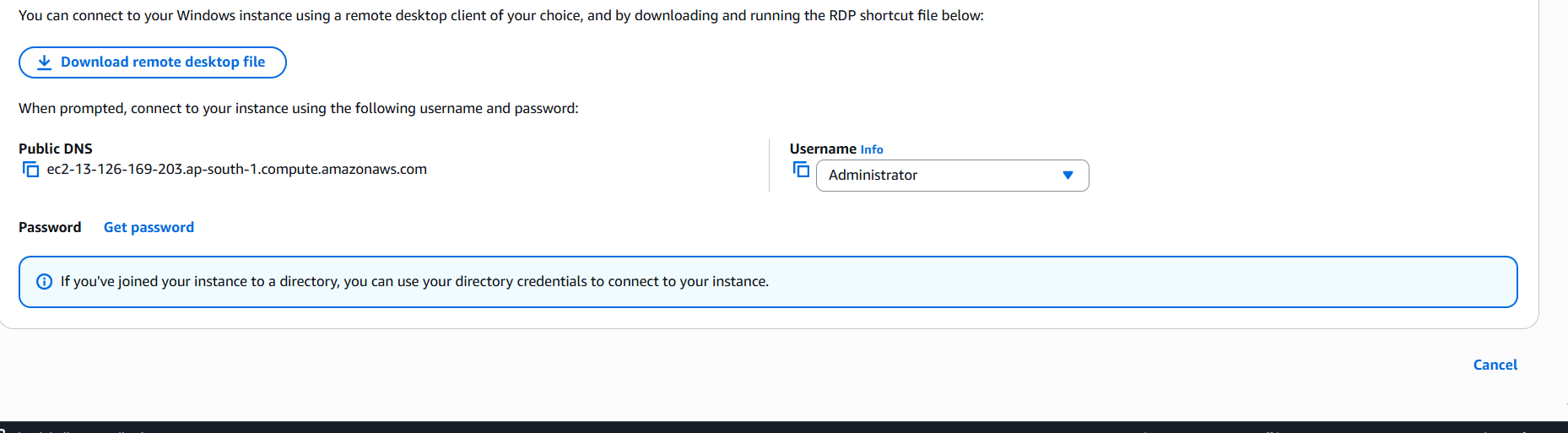
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* 1. Click “Connect**”** option and do “RDP **Client**” configurations for windows -> Go

to “RDP Client”.

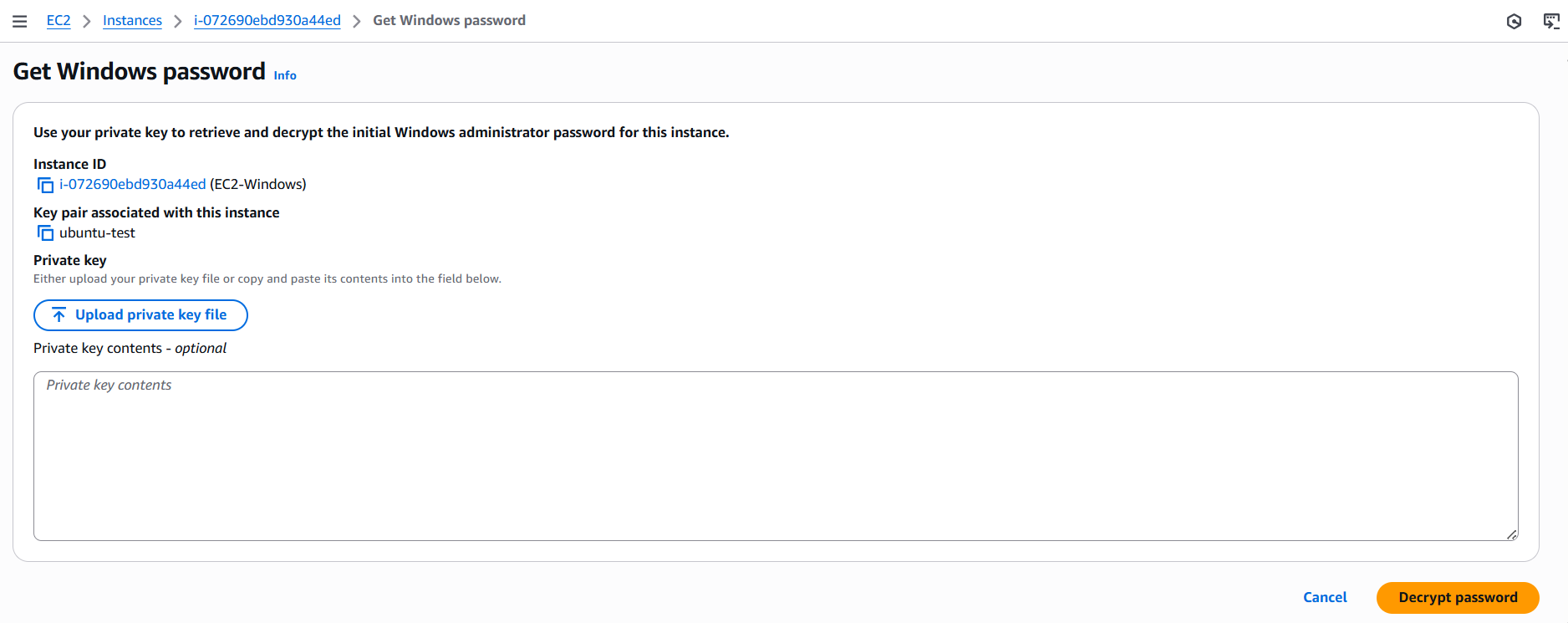
Click “ **Get Password** ” option

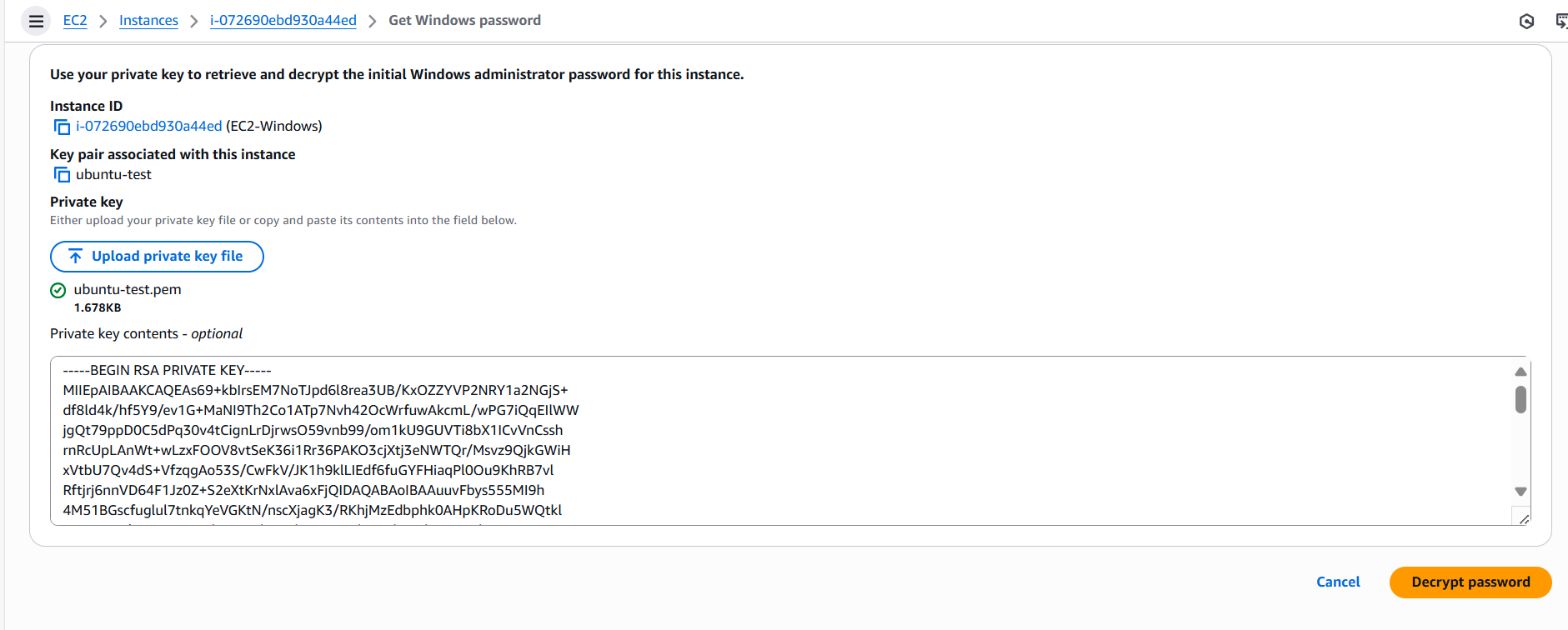
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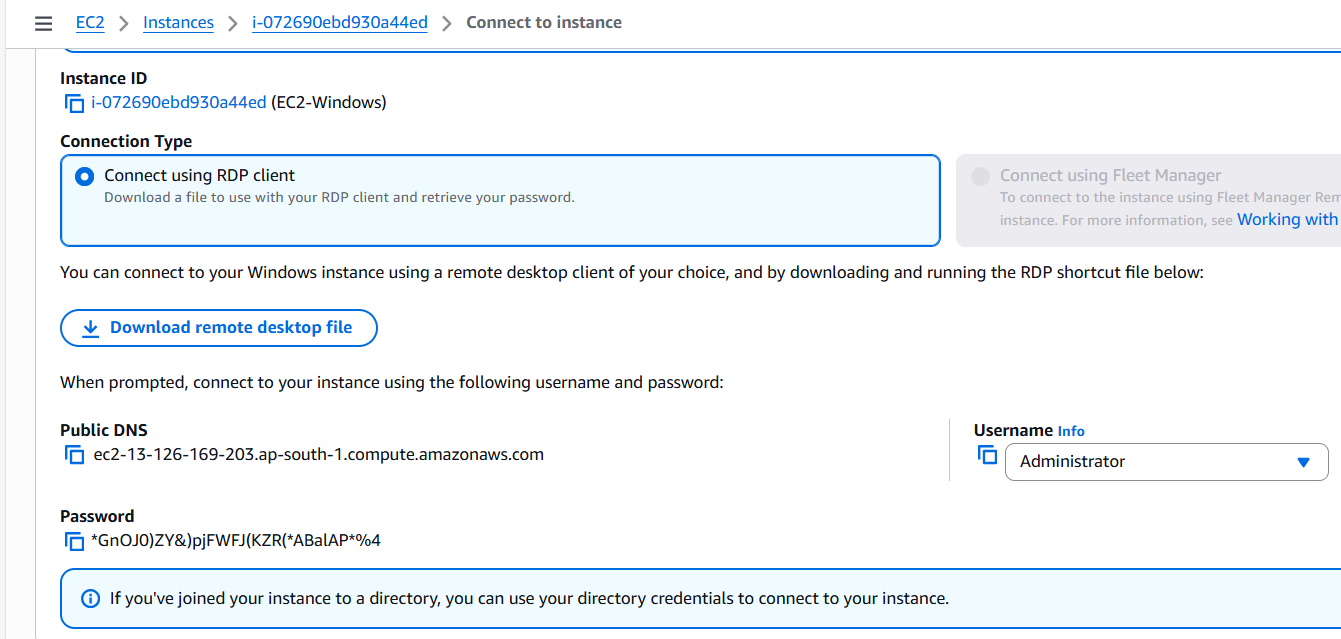
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* 1. Choose the respective “Private Key” file that we downloaded for respective “

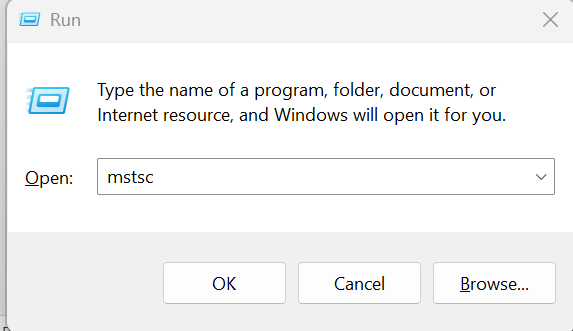
Public key” and click “Decrypt password “.

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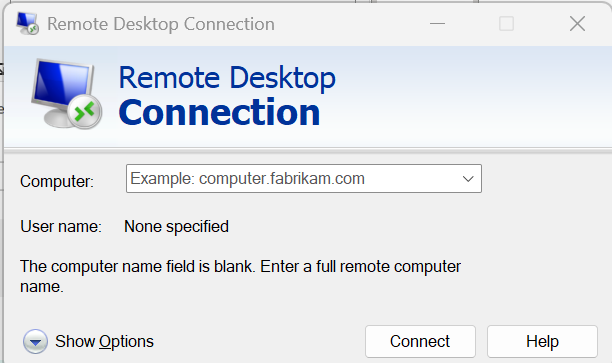
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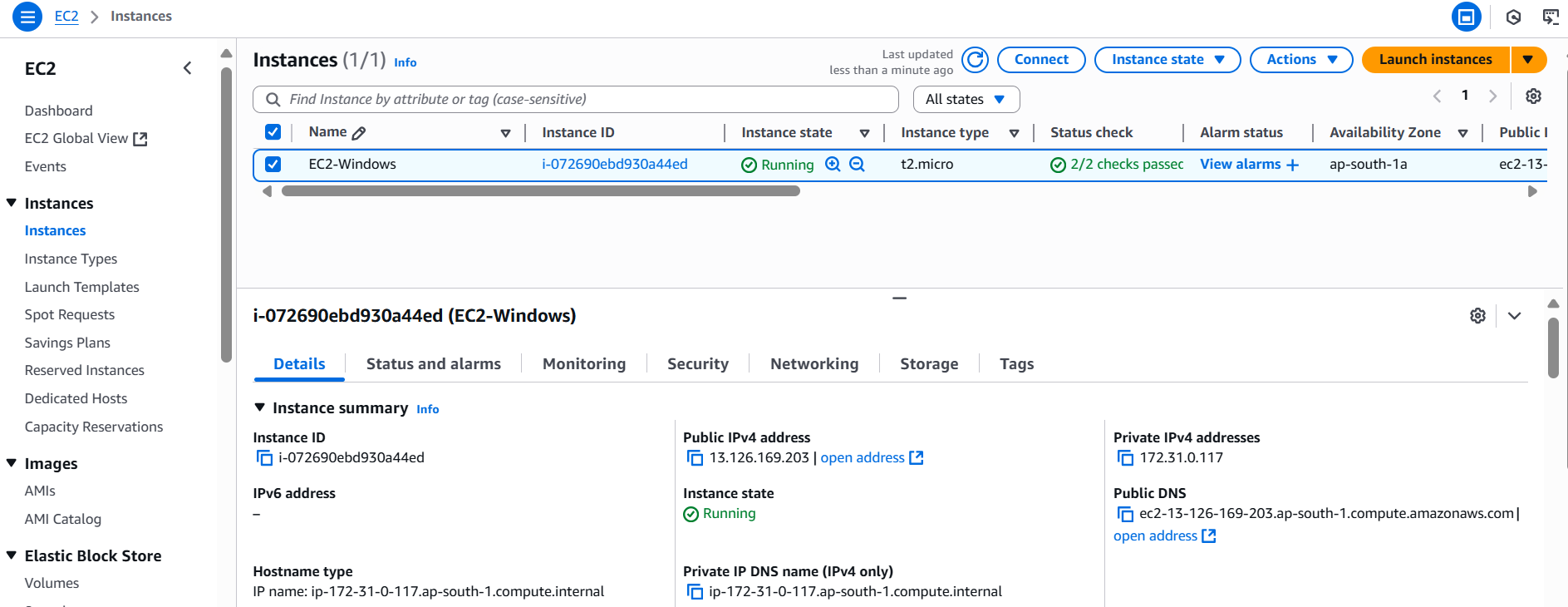
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* 1. Go to my local machine -> Go to Run -> Type mstsc (For RDP).

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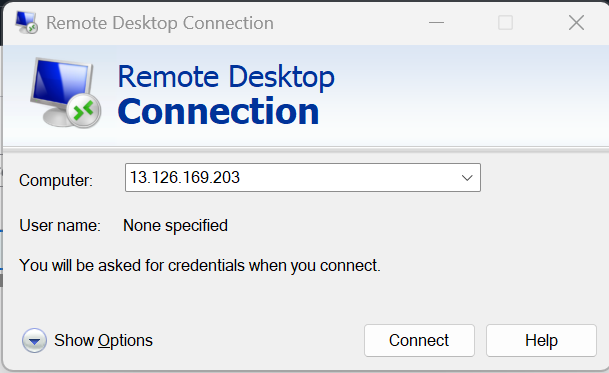
**RDP will appear,**

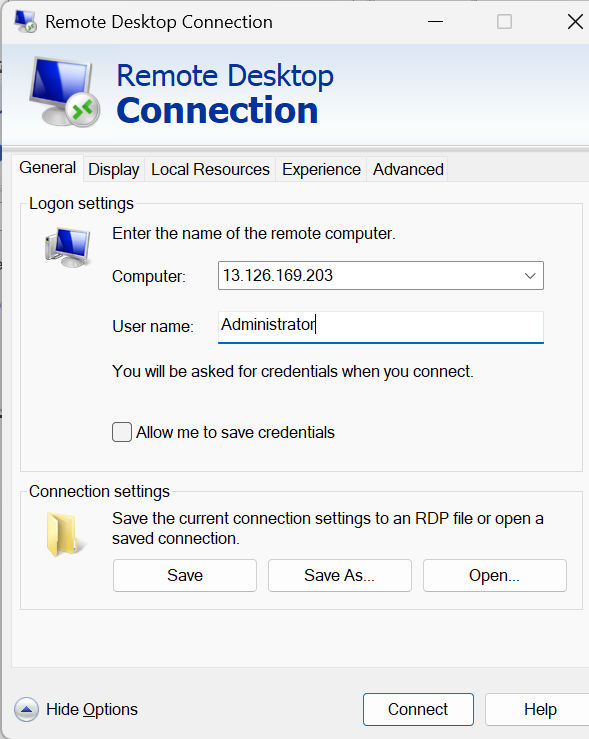
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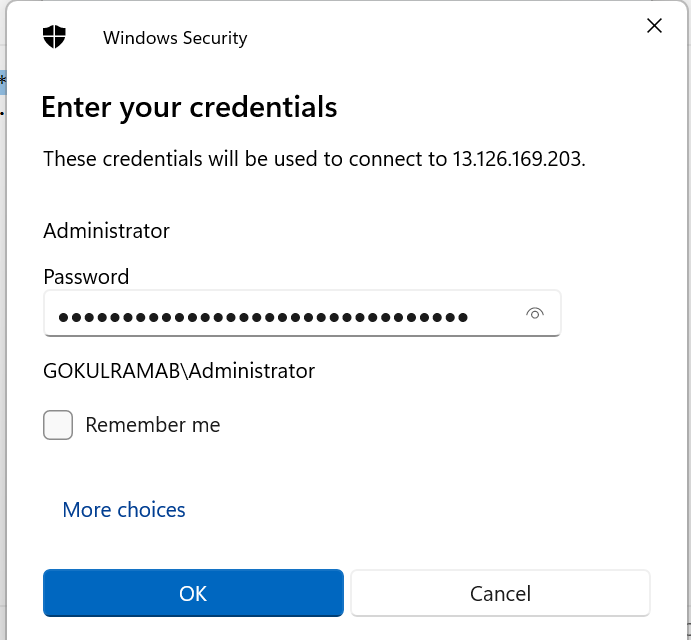
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* 1. Enter “Public IP “of respective VM and enter username (Windows) as “

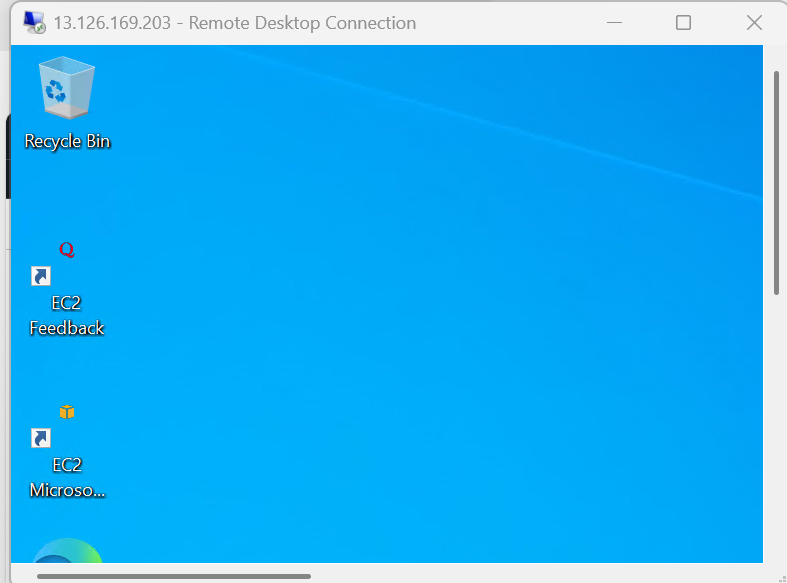
Administrator “

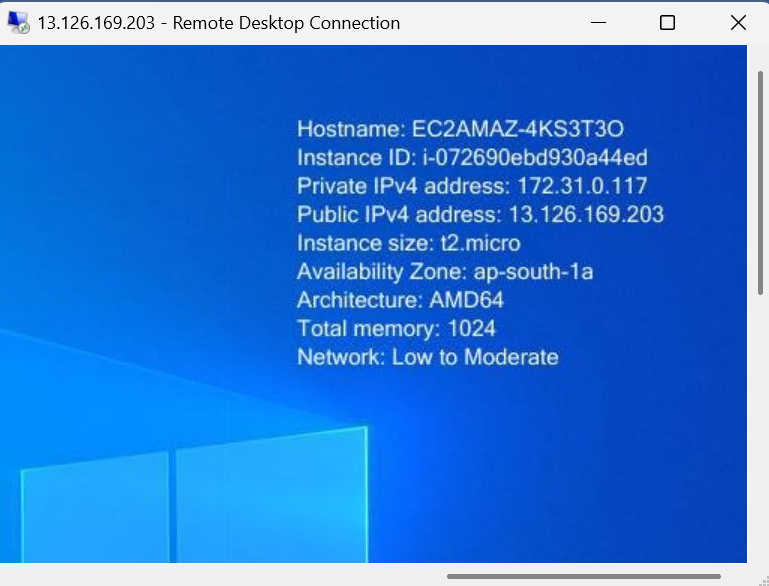
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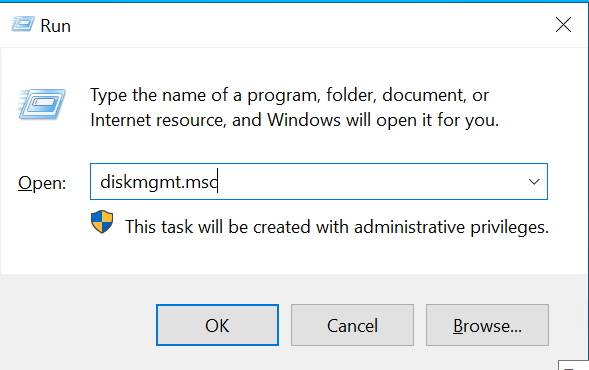
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* 1. Once entered **RDP credentials**, we **authenticated to windows VM** look like below,

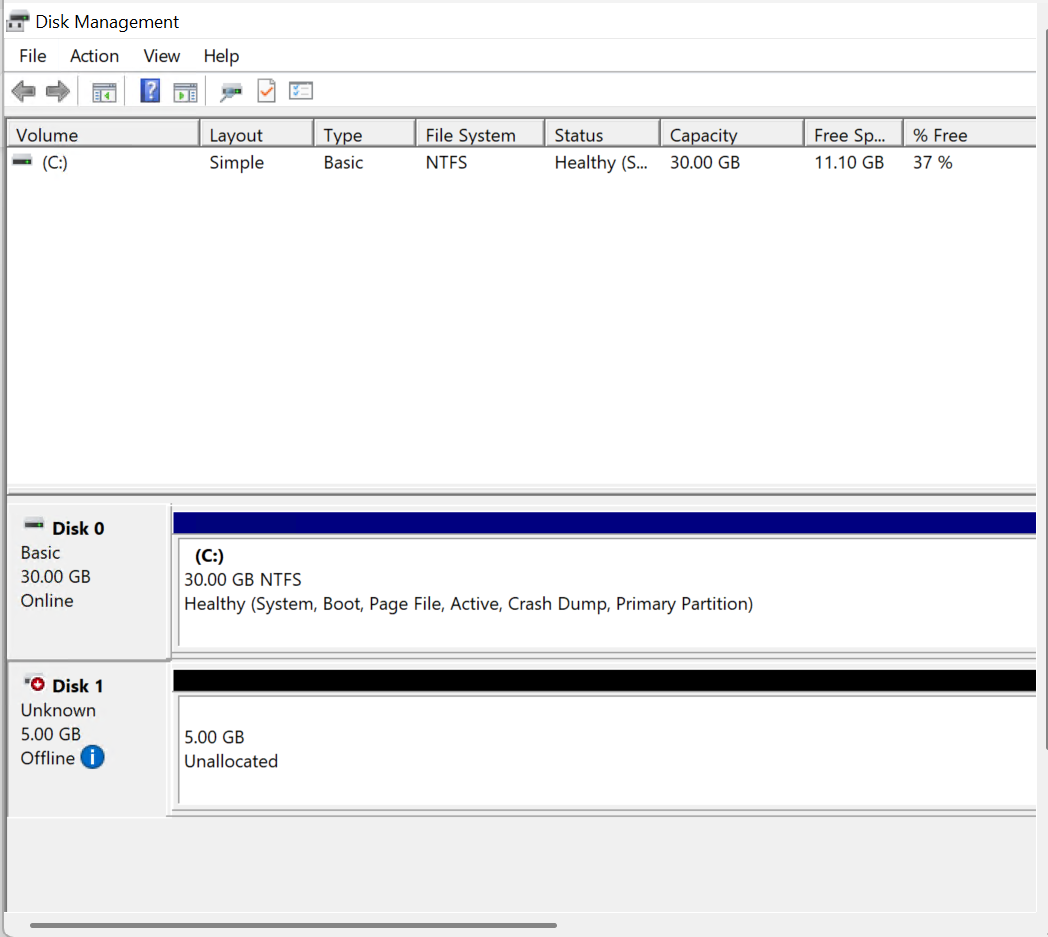
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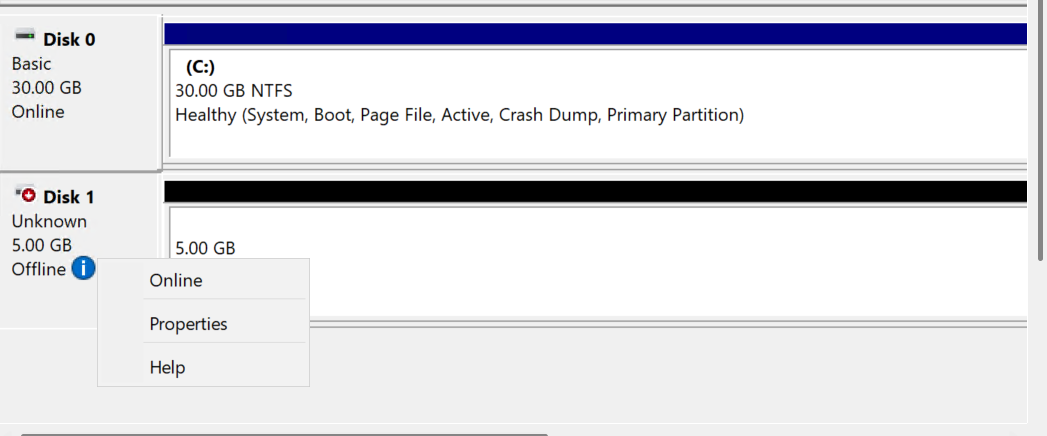
* 1. Once logged in, open **Disk Management** (Press Windows+R key -> Type diskmgmt.msc, and press Enter).

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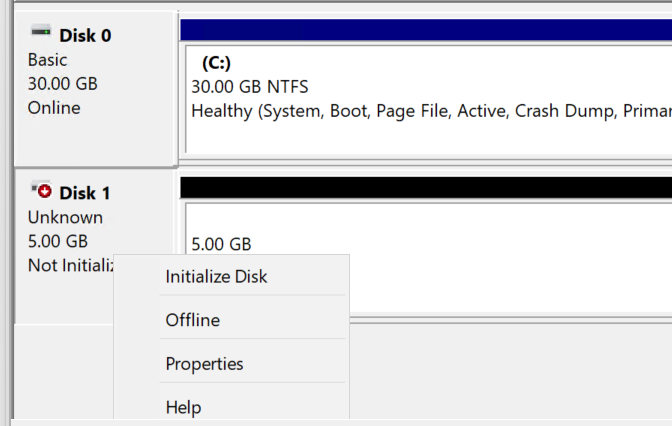
* 1. Now see the **new volume** listed as "**Disk 1**".

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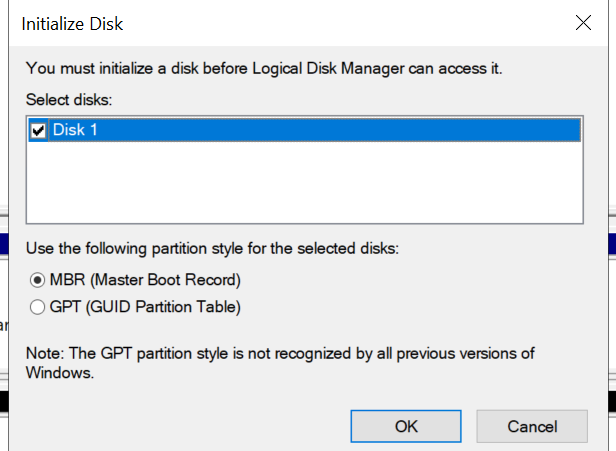
* 1. **Right-click on the new disk and select "Online".**

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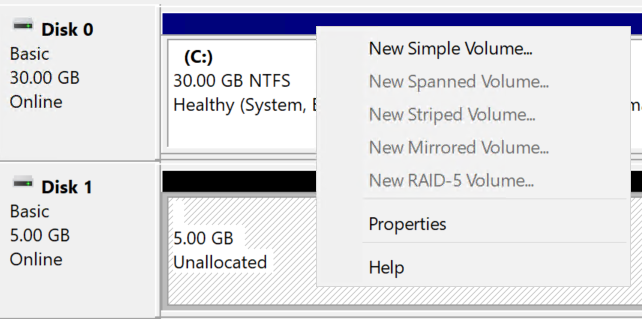
* 1. **Right-click again and select "Initialize Disk".**

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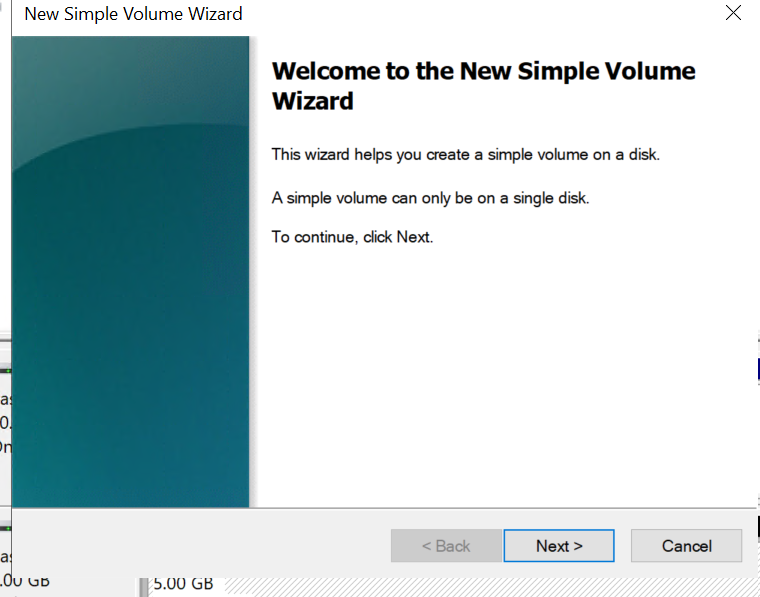
* 1. Choose the partition style (MBR).

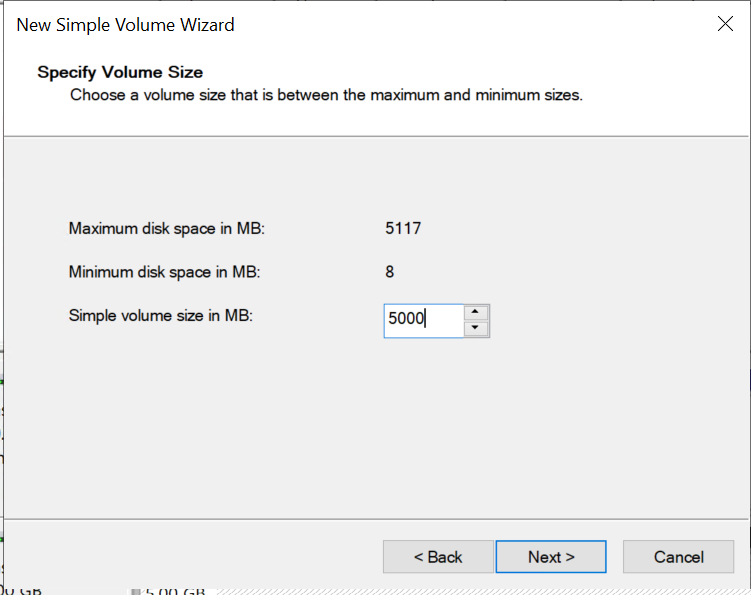
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* 1. **Right-click on the unallocated space and select "New Simple Volume".**

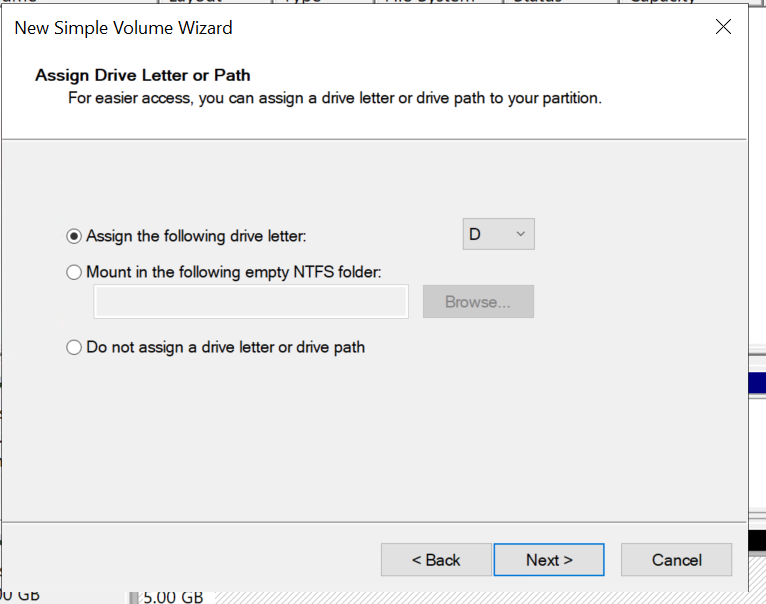
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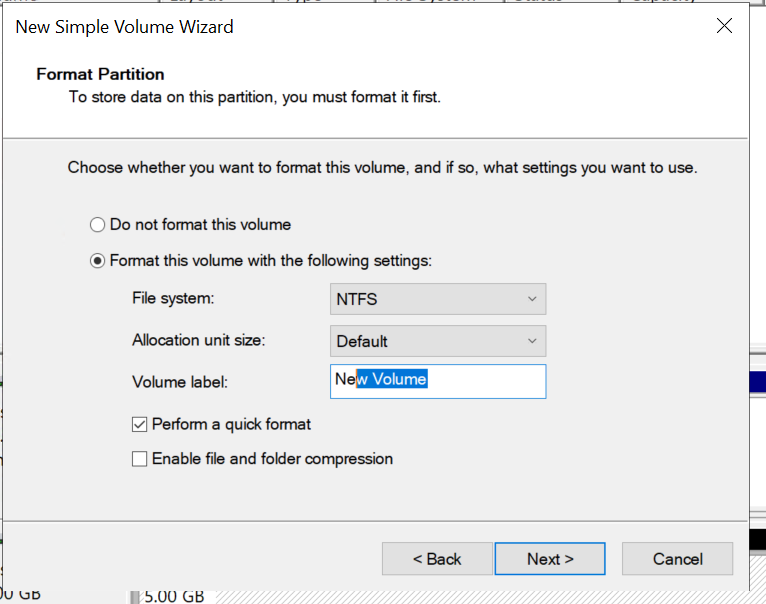
* 1. **Instructions to create the partition: -**
* Click Next

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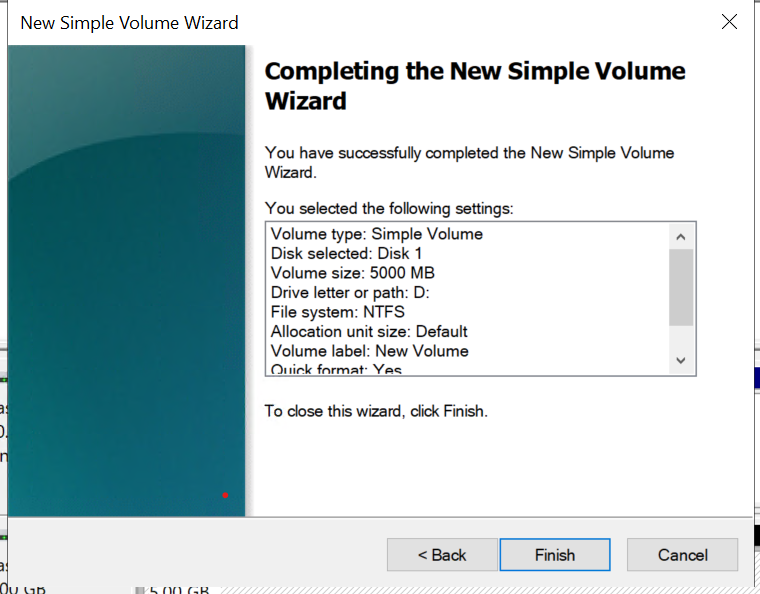
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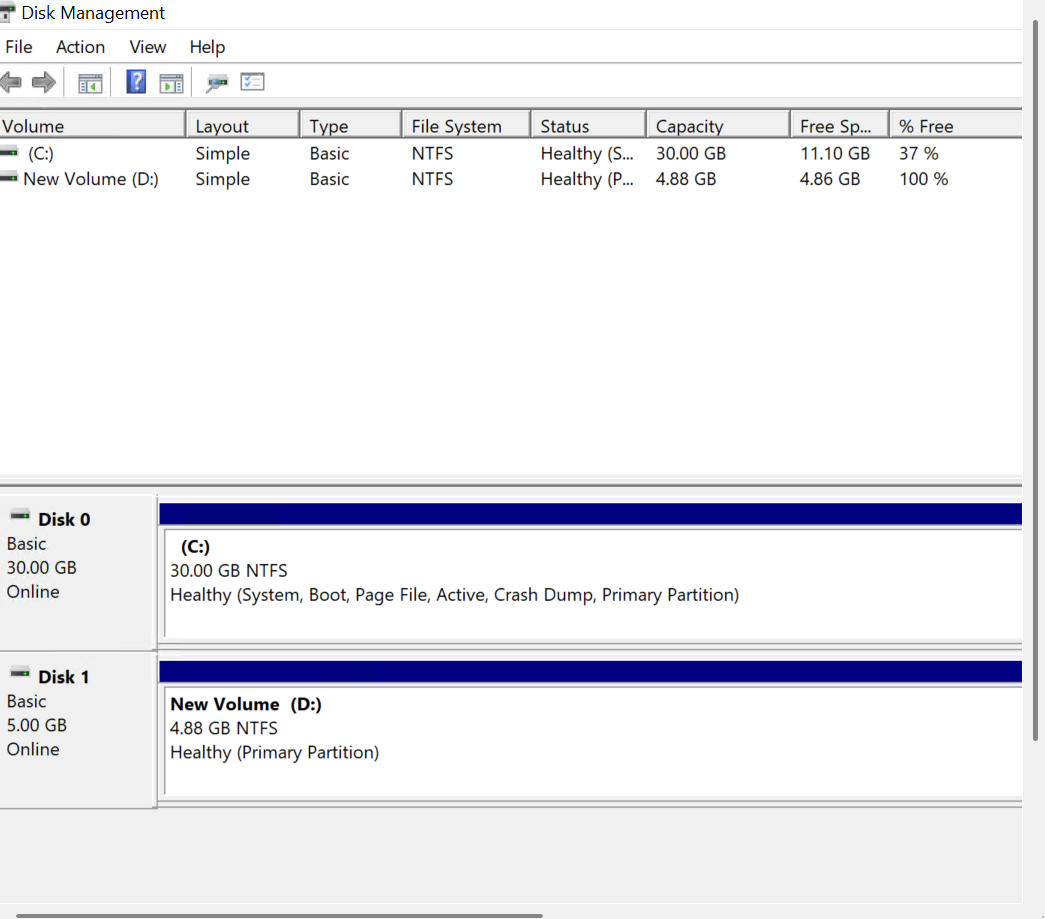
* Choose **Drive Letter: D**

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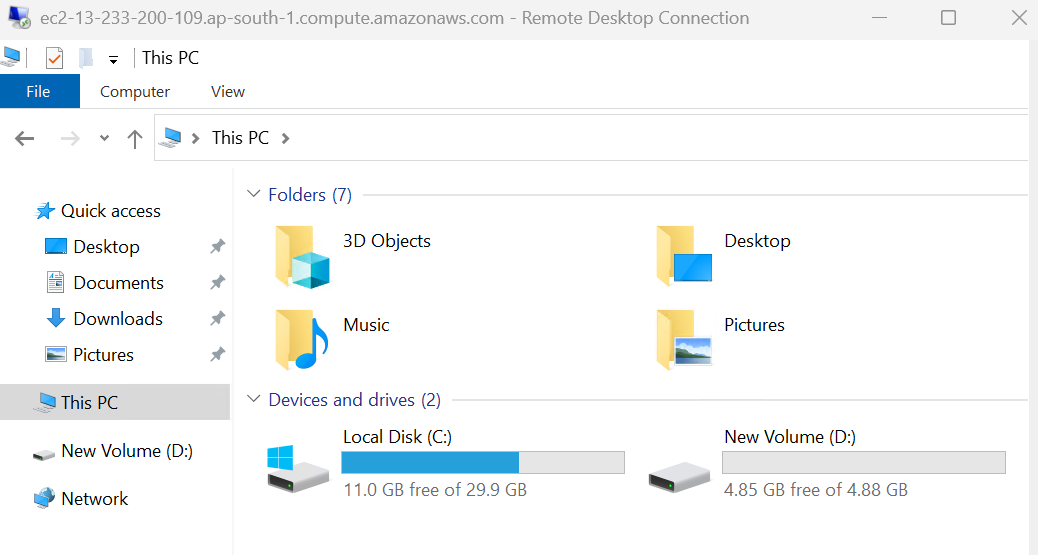
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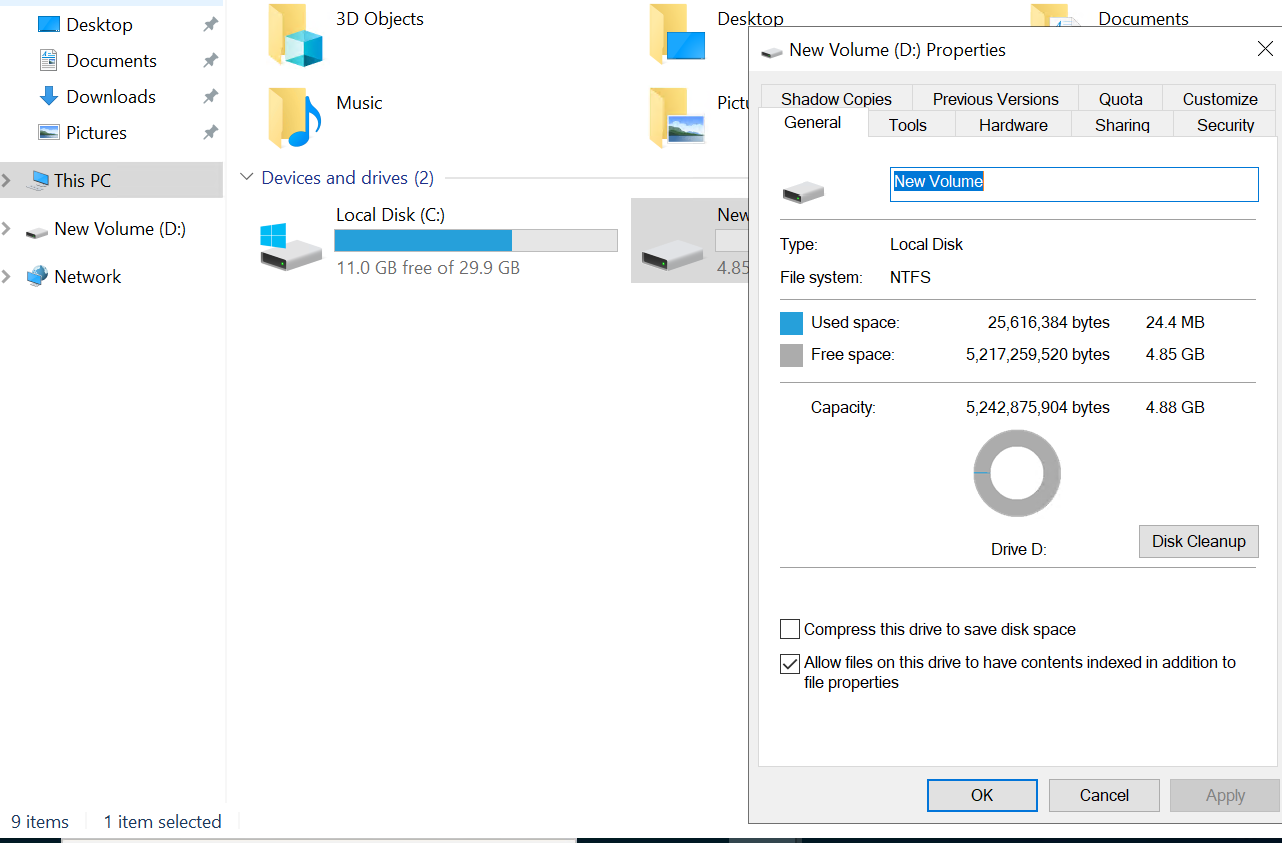
* Click **Finish**

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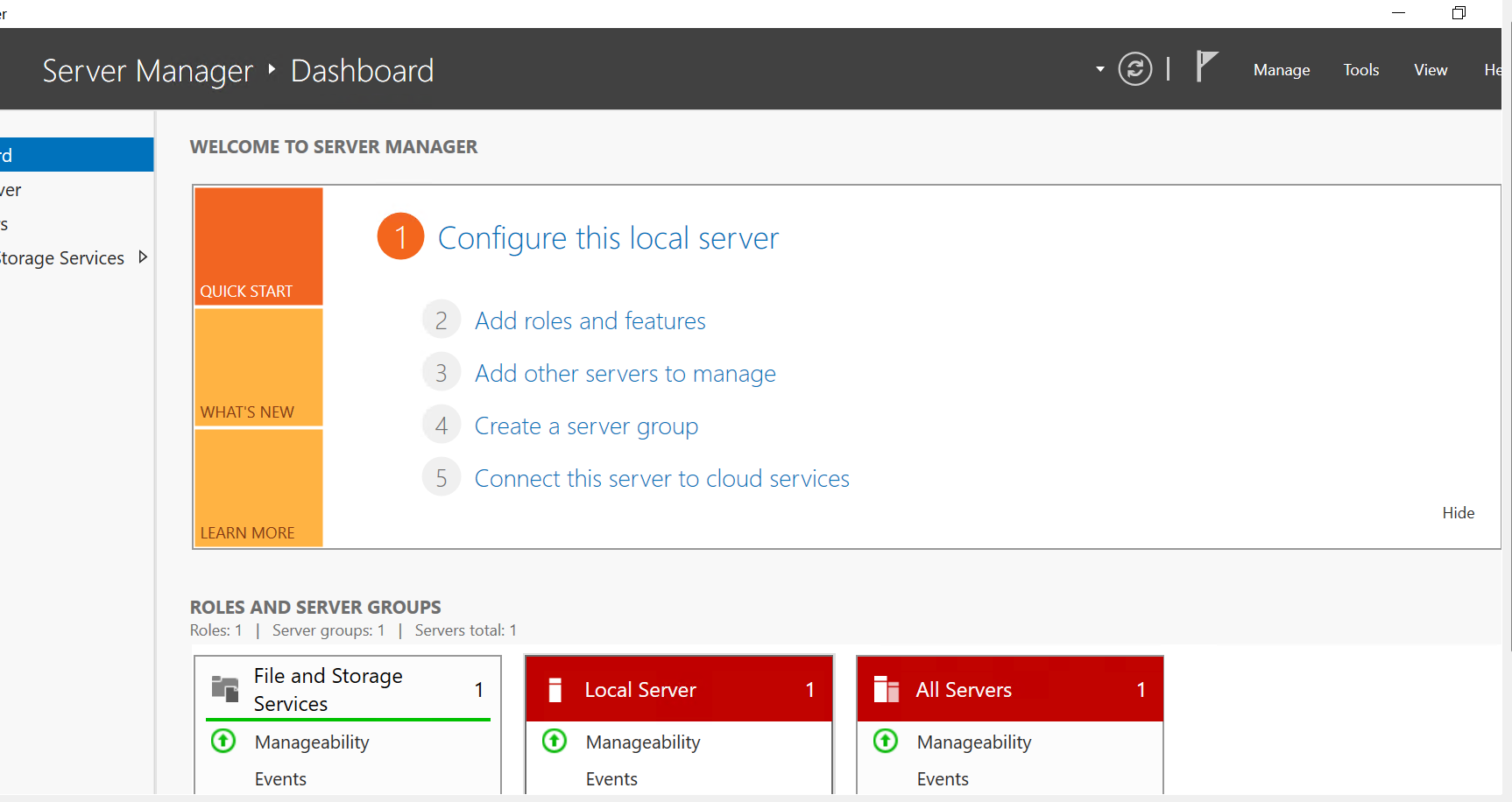
* Now **able to access the EBS volume within the Windows EC2 instance** as a **New Volume (D:)**

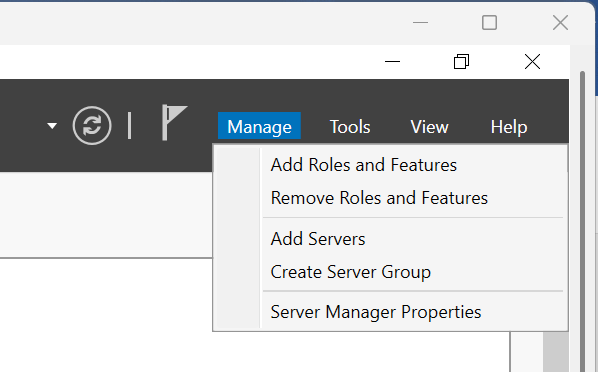
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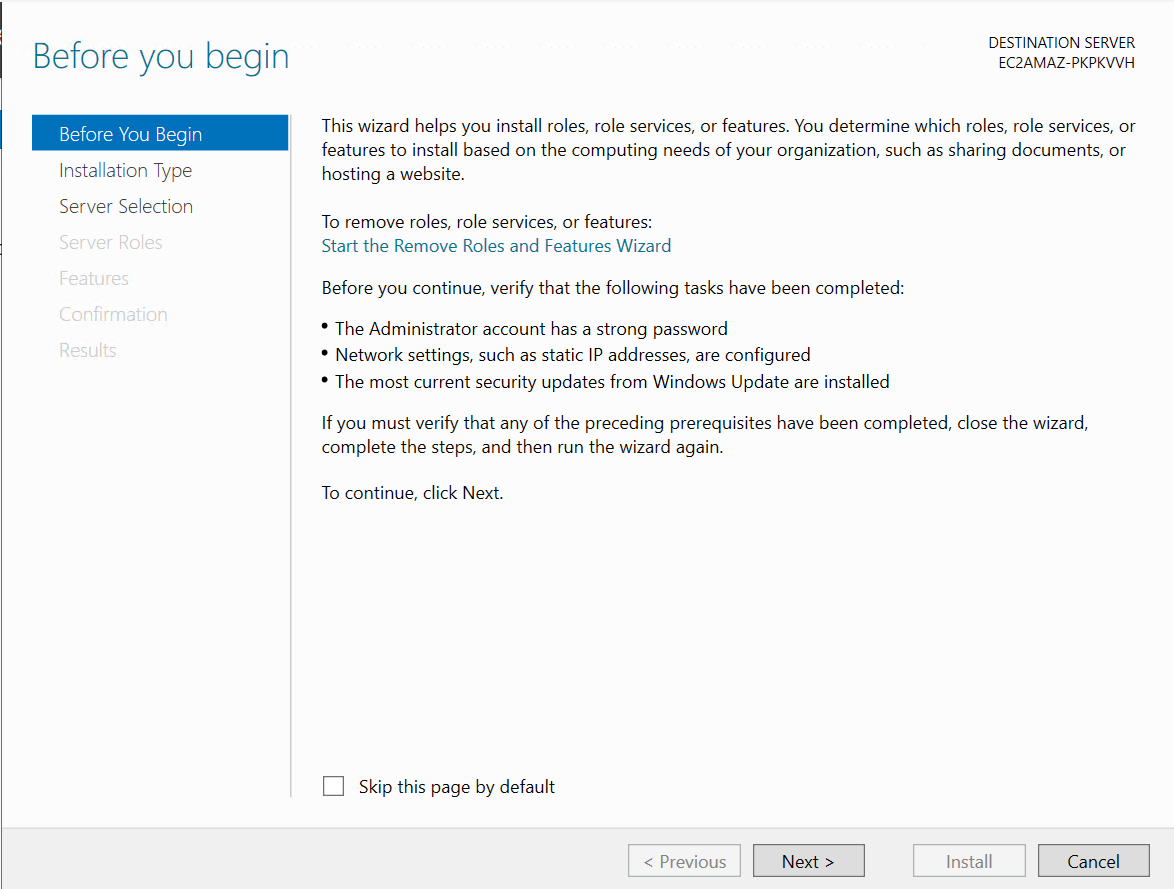
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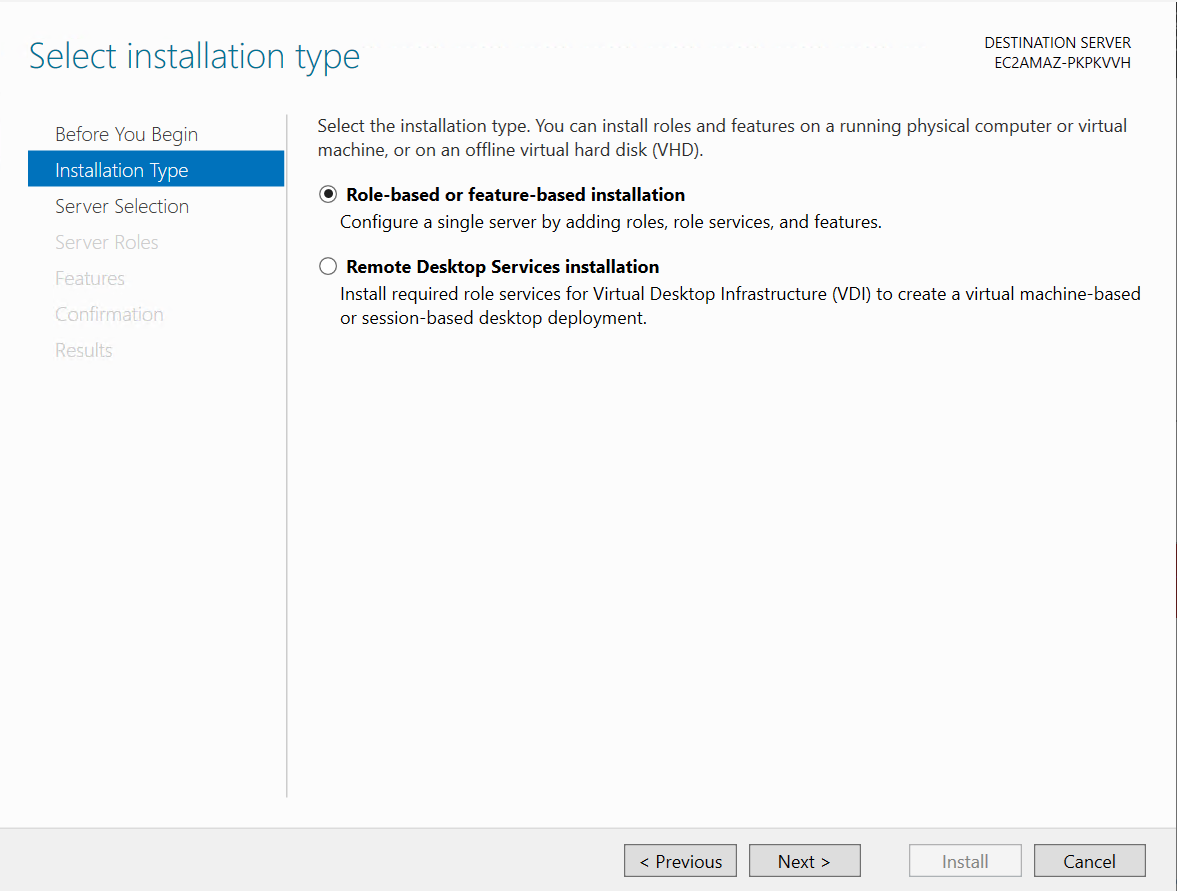
1. **Launching EC2 Windows Instance along with Webserver: -**

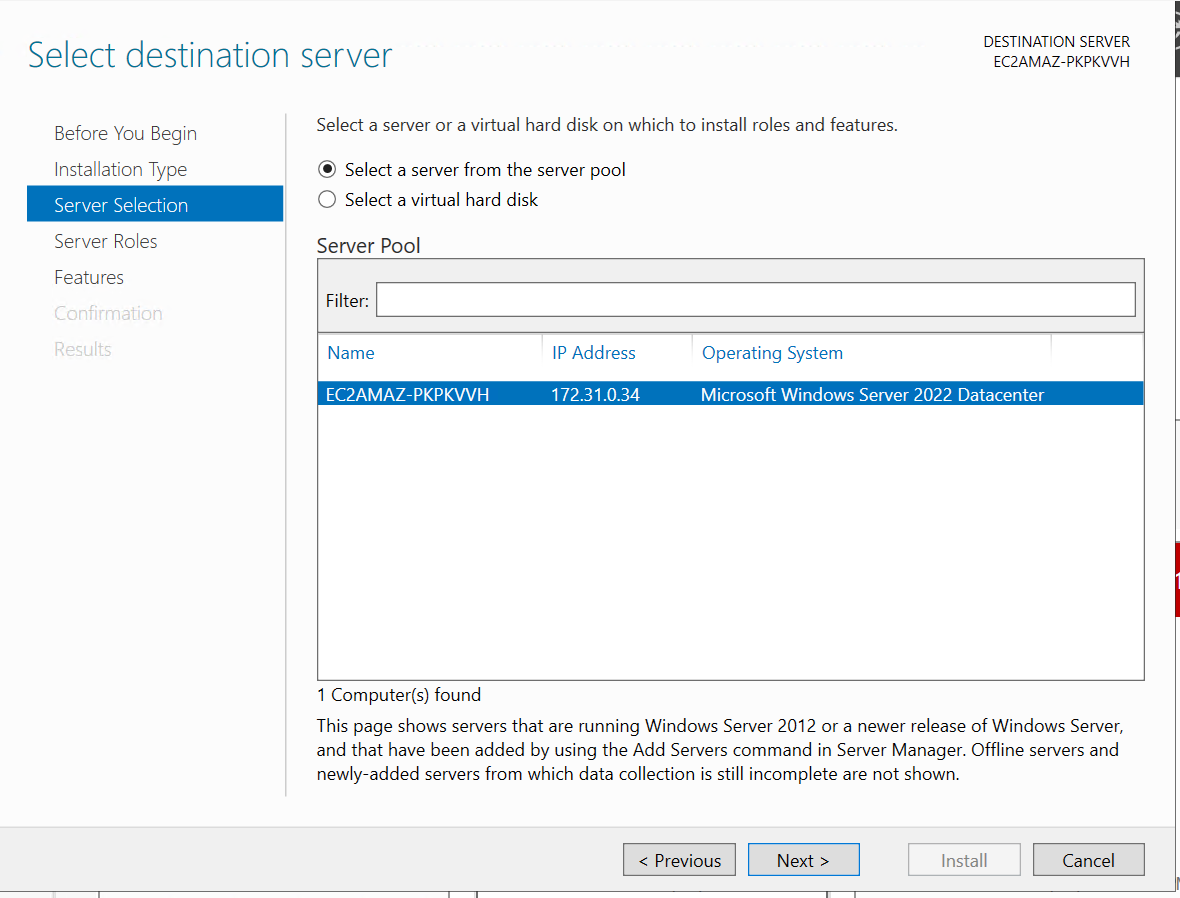
In order to enable IIS, launch Server Manager and select Manage > Add Roles and Feature

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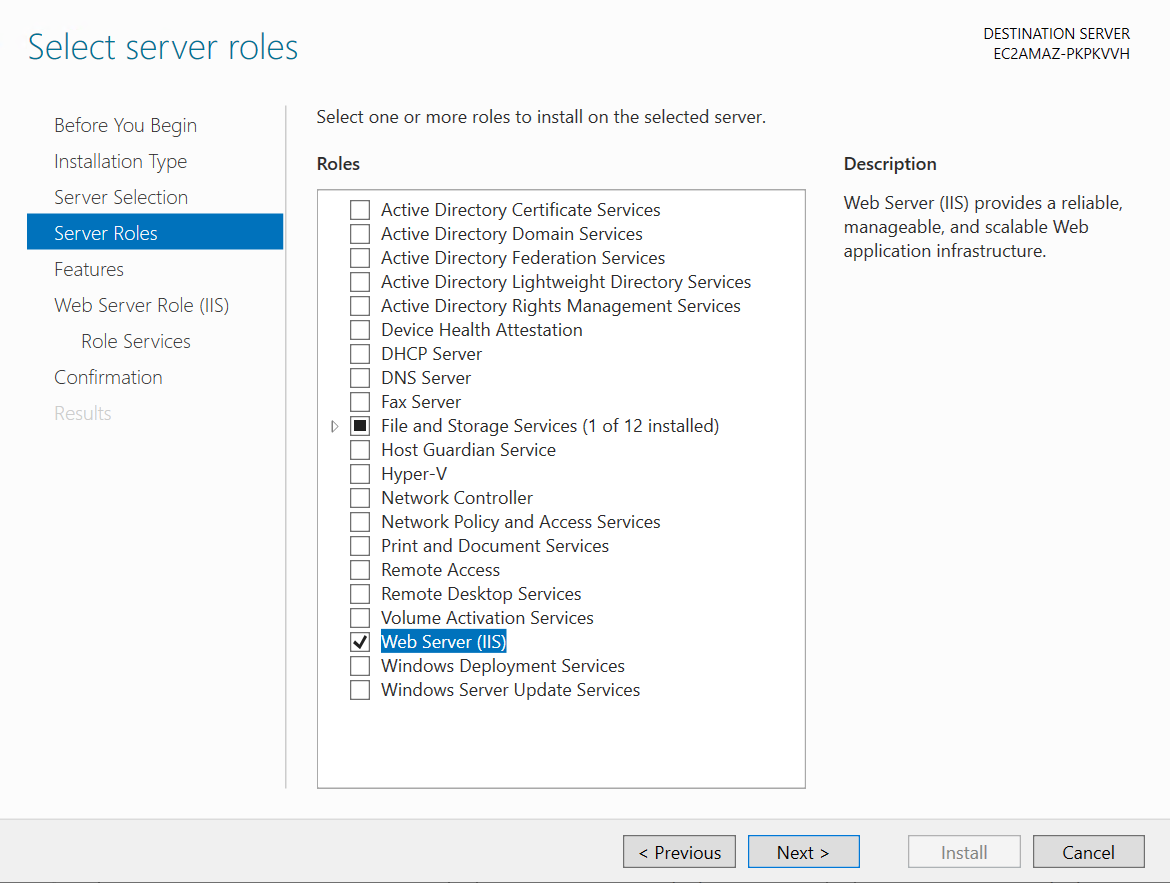
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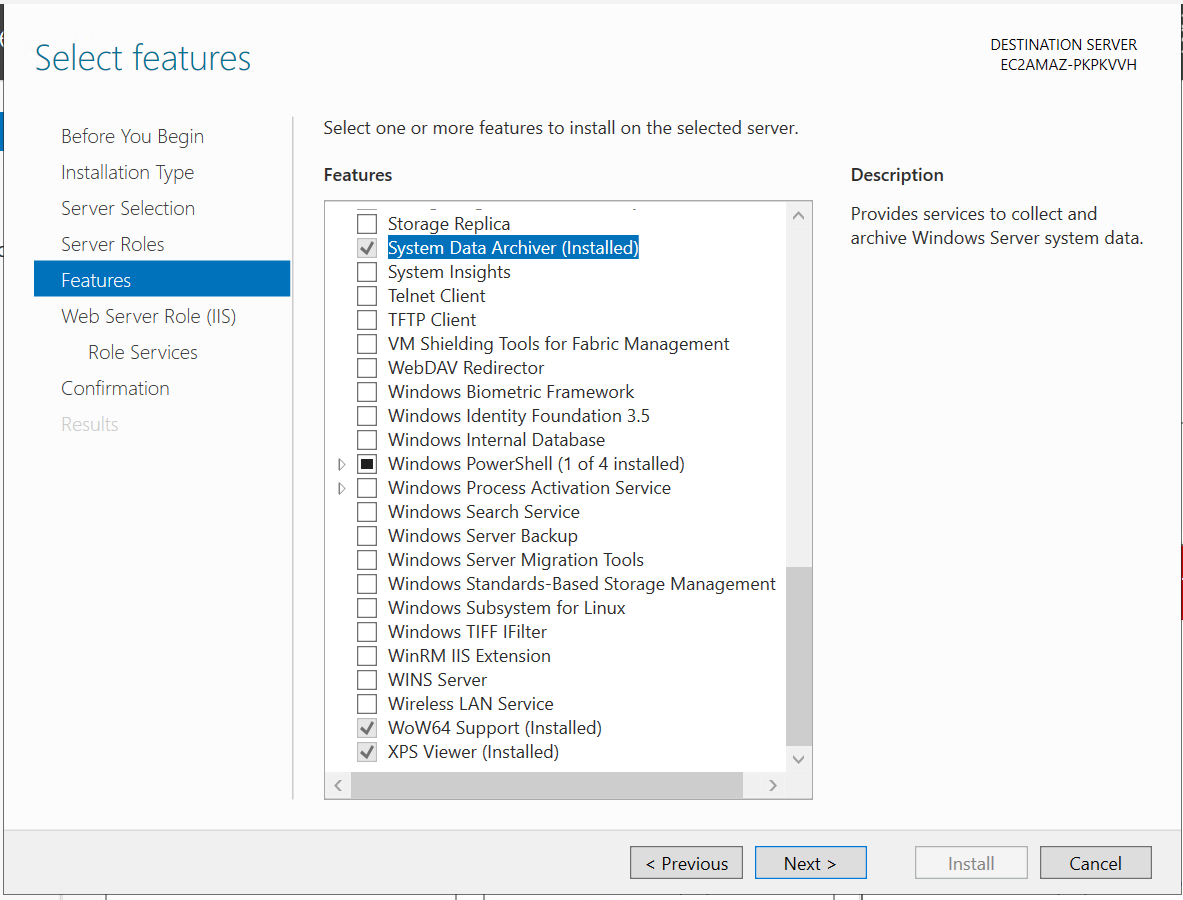
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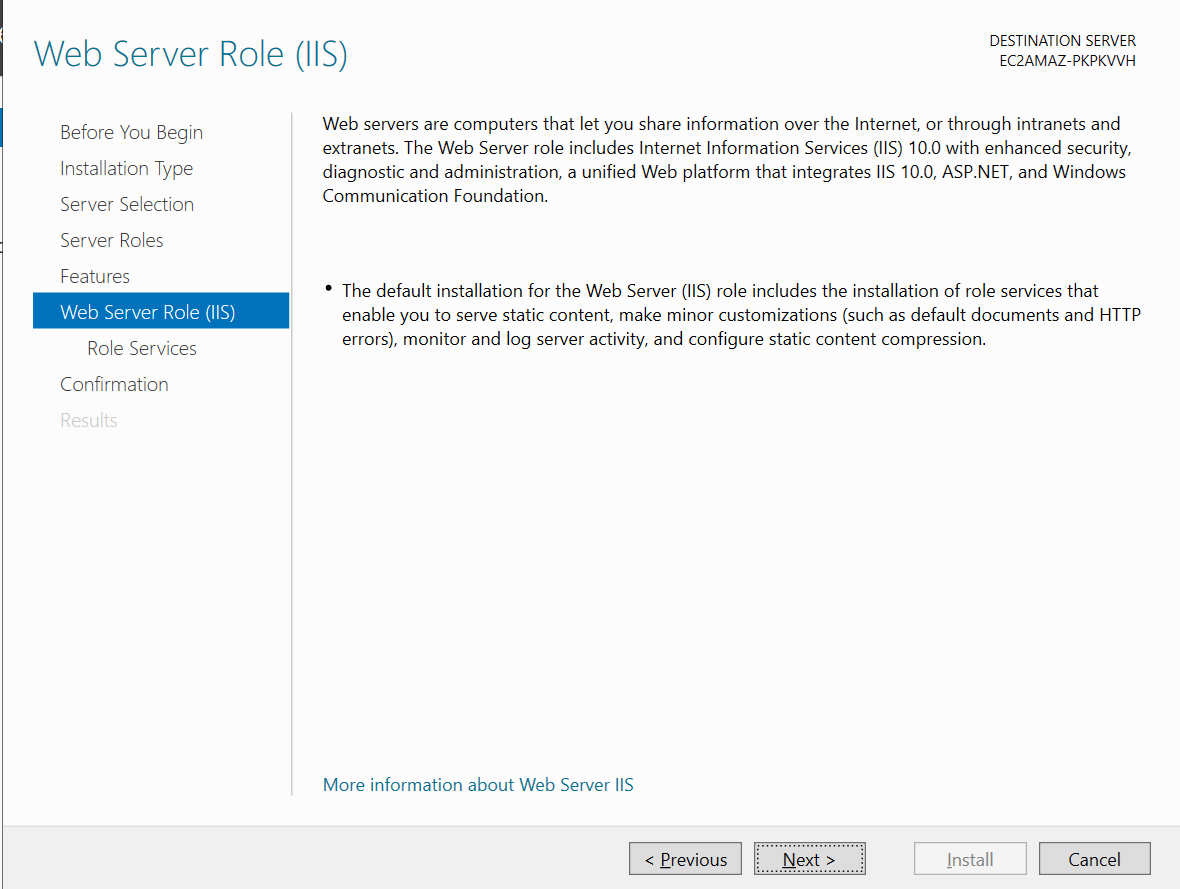
In the Add Roles and Features Wizard, Server Roles page, find and check “Web Server (IIS)”

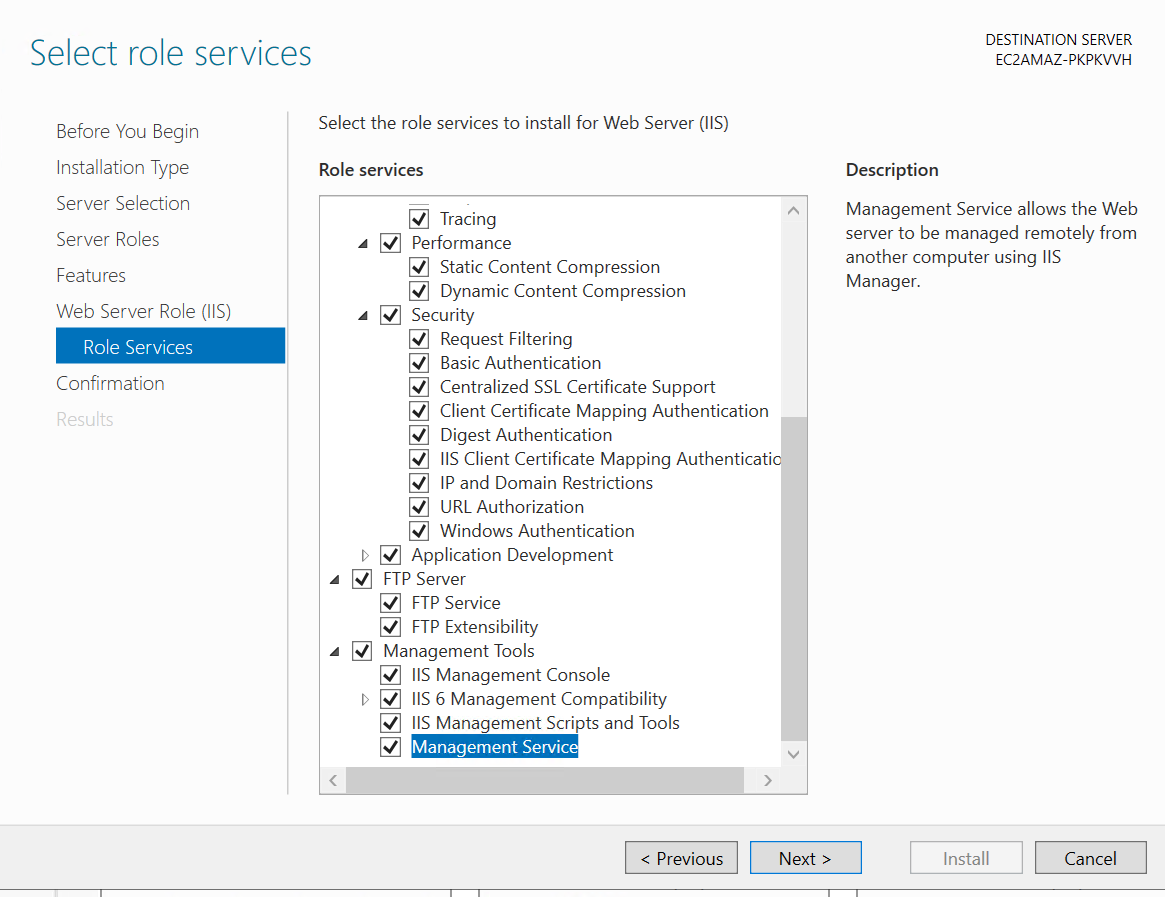
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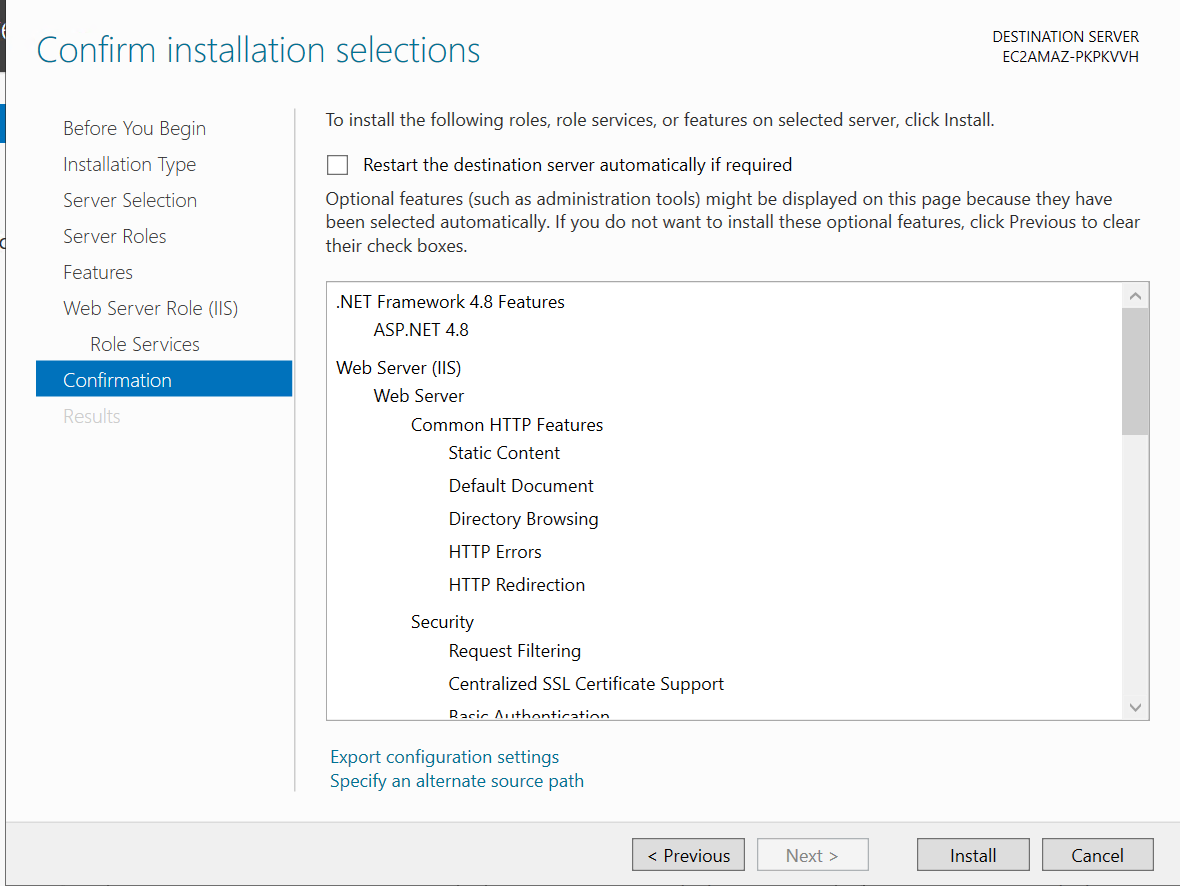
In the Roles Services for Web Server Role (IIS), check the desired options to be include in the installation

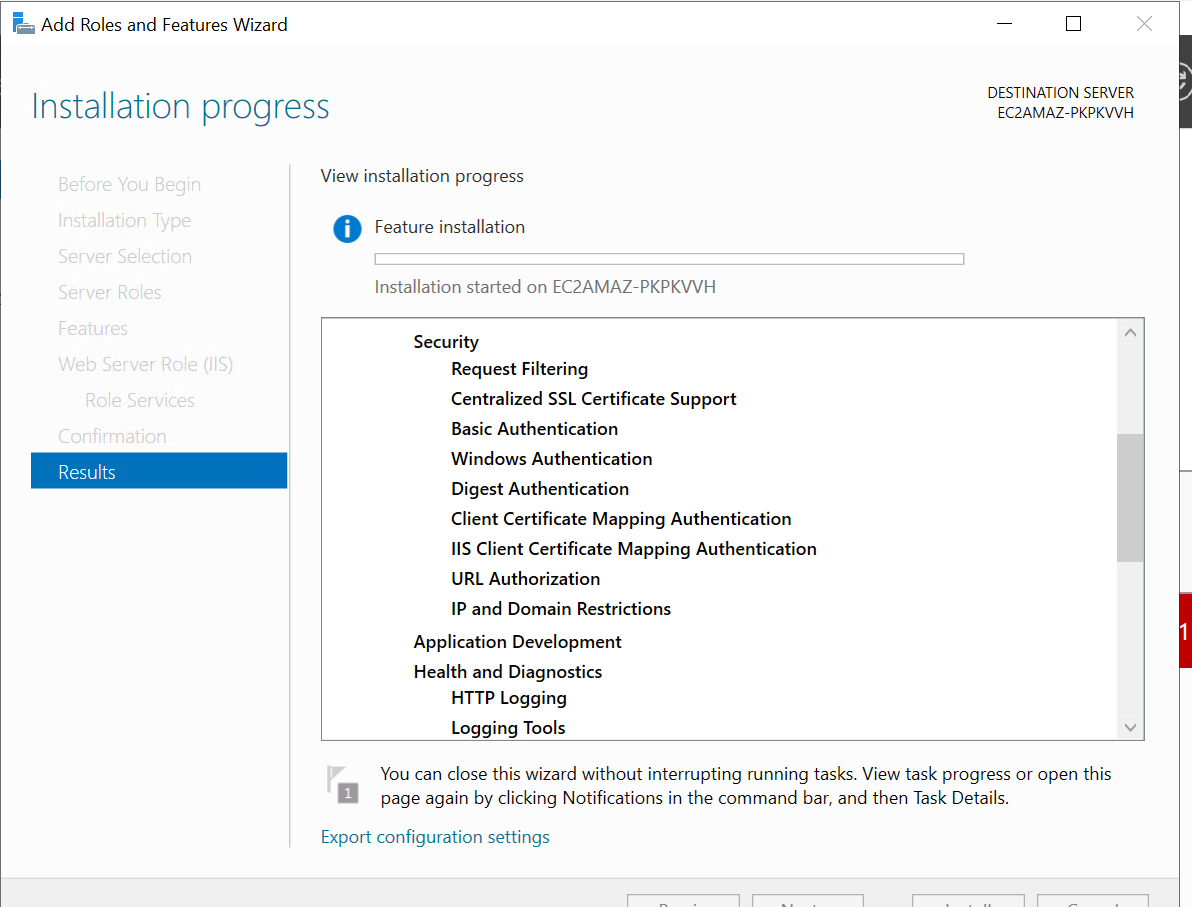
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Confirm the installation

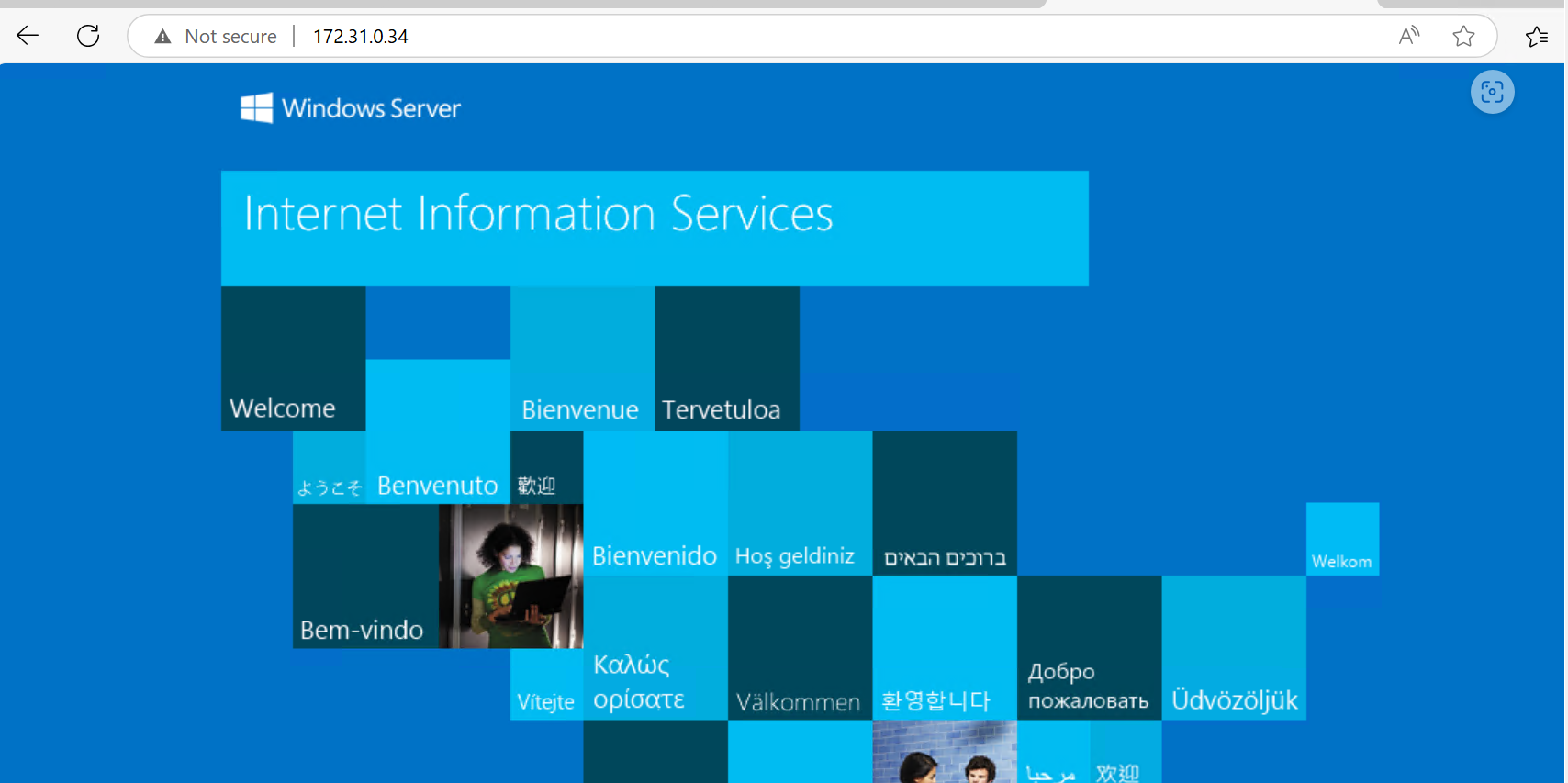
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If everything is installed correctly, you should be able to enter the Public IP address of your EC2 instance in any web browser, and see the IIS default page.

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