

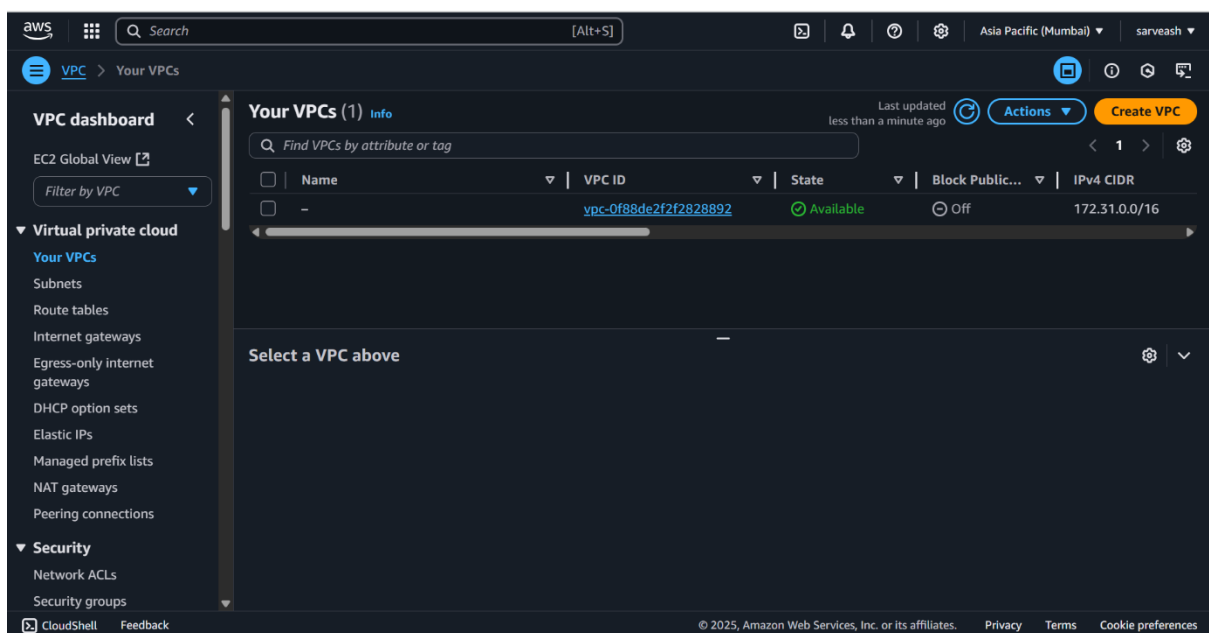
MINOR PROJECT-1

NAME : SARVEASH KOUSHIK RV

QUESTION:

Create a vpc with two subnets where one will be a public a subnet and the other will be a private subnet. In public subnet configure a windows server and in private subnet configure a ubuntu server . And make the both server as as an webserver.

SCREENSHOTS :



Step 1 : First go to AWS console after login in search box type vpc and click into it.

Step 2 : click into create vpc.

Create VPC [Info](#)

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

VPC settings

Resources to create [Info](#)
Create only the VPC resource or the VPC and other networking resources.

☒ VPC only ☐ VPC and more

Name tag - optional
Creates a tag with a key of 'Name' and a value that you specify.

my-vpc-01

IPv4 CIDR block [Info](#)
☒ IPv4 CIDR manual input ☐ IPAM-allocated IPv4 CIDR block

IPv4 CIDR
10.1.0.0/16
CIDR block size must be between /16 and /28.

IPv6 CIDR block [Info](#)
☒ No IPv6 CIDR block ☐ IPAM-allocated IPv6 CIDR block ☐ Amazon-provided IPv6 CIDR block

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Step 3 : fill the required fields like vpc only and the name of the vpc. After that fill the CIDR range for the vpc. Lastly click on the create button.

Subnets (3) [Info](#) Last updated 11 minutes ago [Actions](#) [Create subnet](#)

Find subnets by attribute or tag

| <input type="checkbox"/> | Name | Subnet ID | State | VPC |
|--------------------------|------|--|-----------|-------------------------------------|
| <input type="checkbox"/> | - | subnet-021c8005860ac5419 | Available | vpc-0f88de2f2828892 |
| <input type="checkbox"/> | - | subnet-0c07b1d6b33171aaa | Available | vpc-0f88de2f2828892 |
| <input type="checkbox"/> | - | subnet-0b00a4a065874a57d | Available | vpc-0f88de2f2828892 |

Select a subnet

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Step 4 : Next go to subnets and click on to create subnets.

aws [Search] [Alt+S] Asia Pacific (Mumbai) sarveash

VPC > Subnets > Create subnet

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.
vpc-00c35b5f58dd422b2 (my-vpc-01)

Associated VPC CIDRs

IPv4 CIDRs
10.1.0.0/16

aws [Search] [Alt+S] Asia Pacific (Mumbai) sarveash

VPC > Subnets > Create subnet

Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 2

Subnet name
Create a tag with a key of 'Name' and a value that you specify.
public-subnet
The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
Asia Pacific (Mumbai) / ap-south-1a

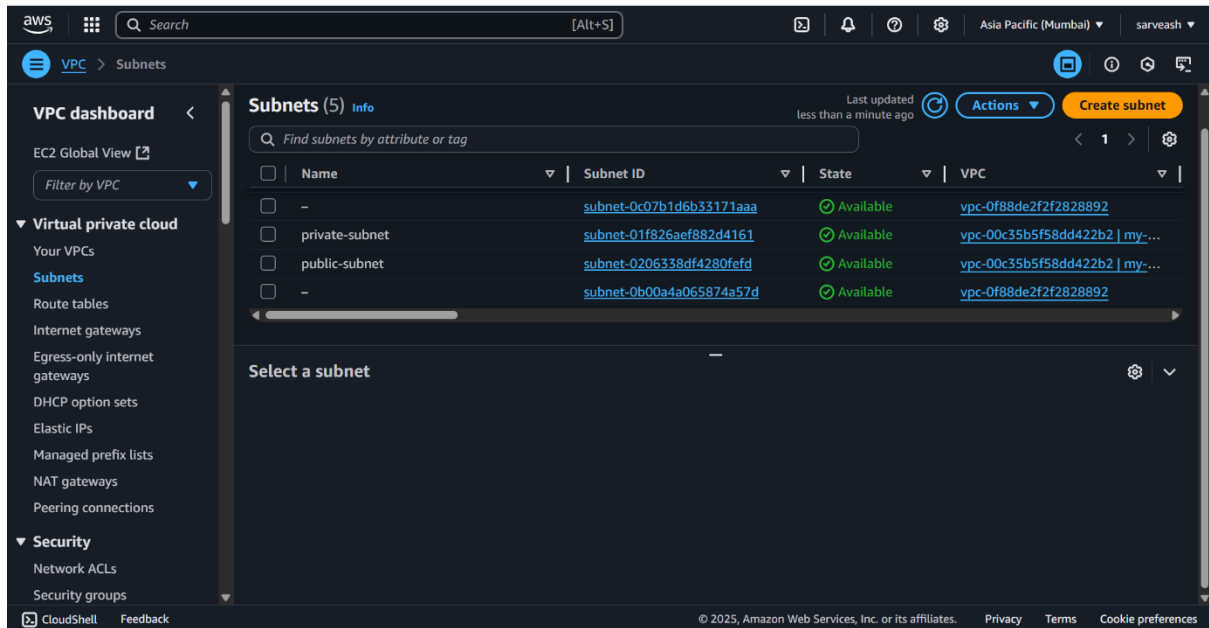
IPv4 VPC CIDR block Info
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.
10.1.0.0/16

IPv4 subnet CIDR block
10.1.1.0/24 256 IPs
< > ^ v

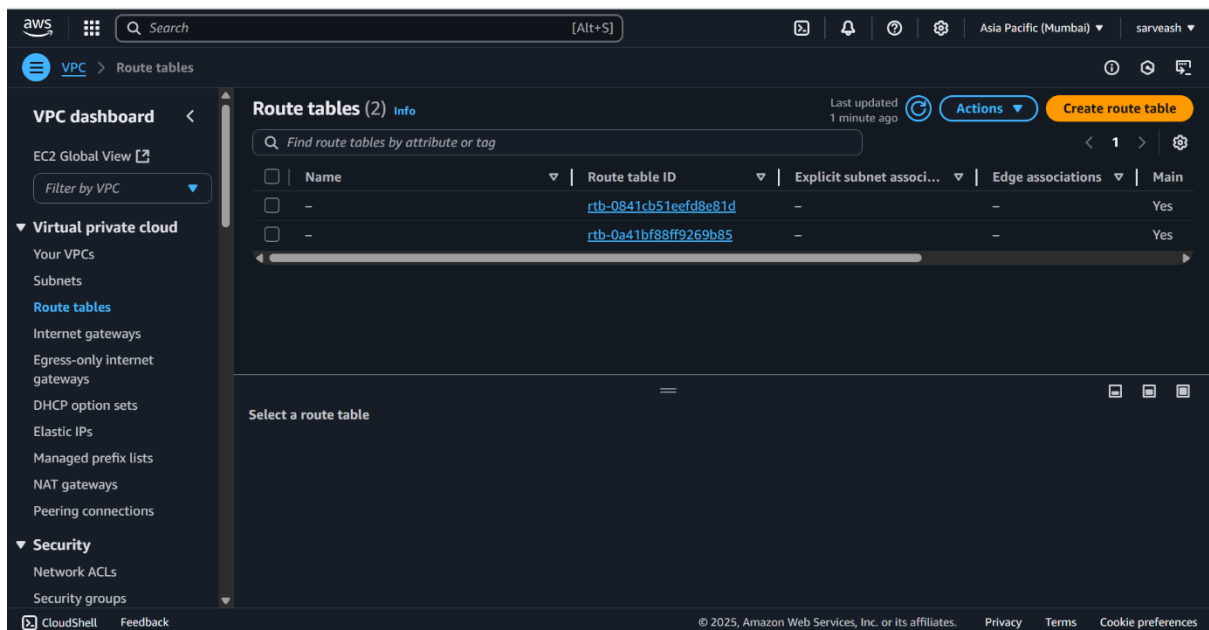
Step 5 : In that select the vpc in which the subnet will be present.

Step 6 : After step 5 fill up the required fields such as subnet name, availability zone, ipv4 CIDR block of vpc and CIDR block for subnet.

Step 7 : Lastly click on create subnet.



Step 8 : Here you subnets as ben created public subnet and private subnet.



Step 9 : After step 8 go to routing tables and click on to the create route table.

Create route table [Info](#)

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.
routing-table-1

VPC
The VPC to use for this route table.
vpc-00c35b5f58dd422b2 (my-vpc-01)

Tags
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key **Value - optional**

Q Name X Q routing-table-1 X Remove

Add new tag

You can add 49 more tags.

Cancel Create route table

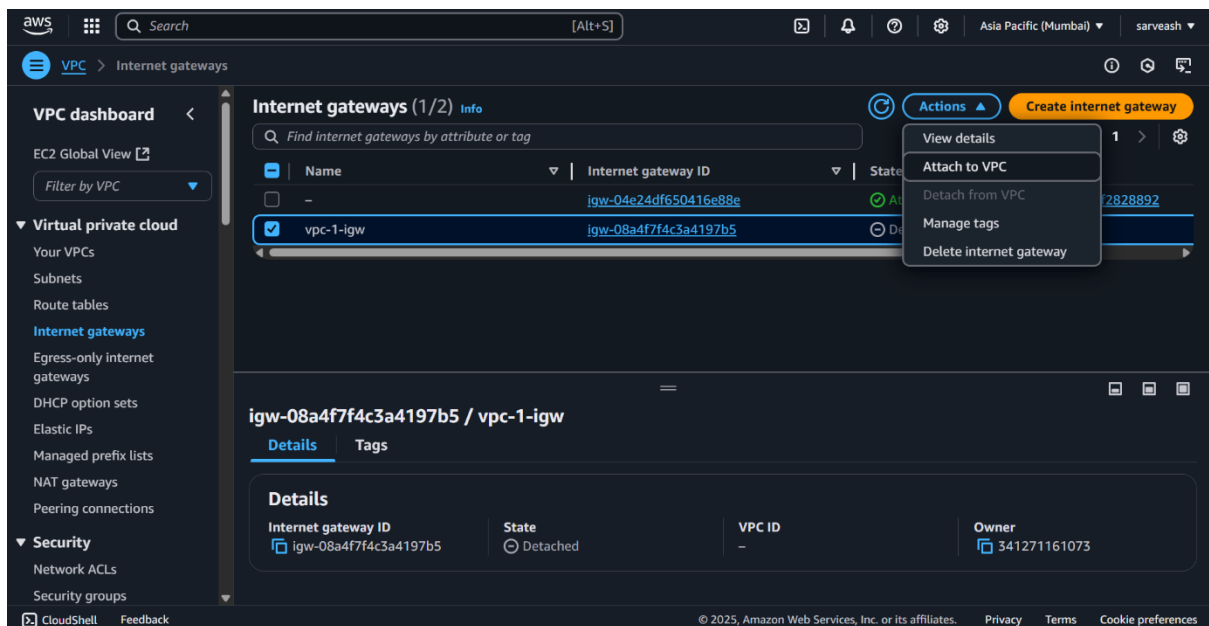
Step 10 : In that fill the name of the route table and fill the vpc that will be used by the routing table. After filling click on create route table.

Internet gateways (2) [Info](#)

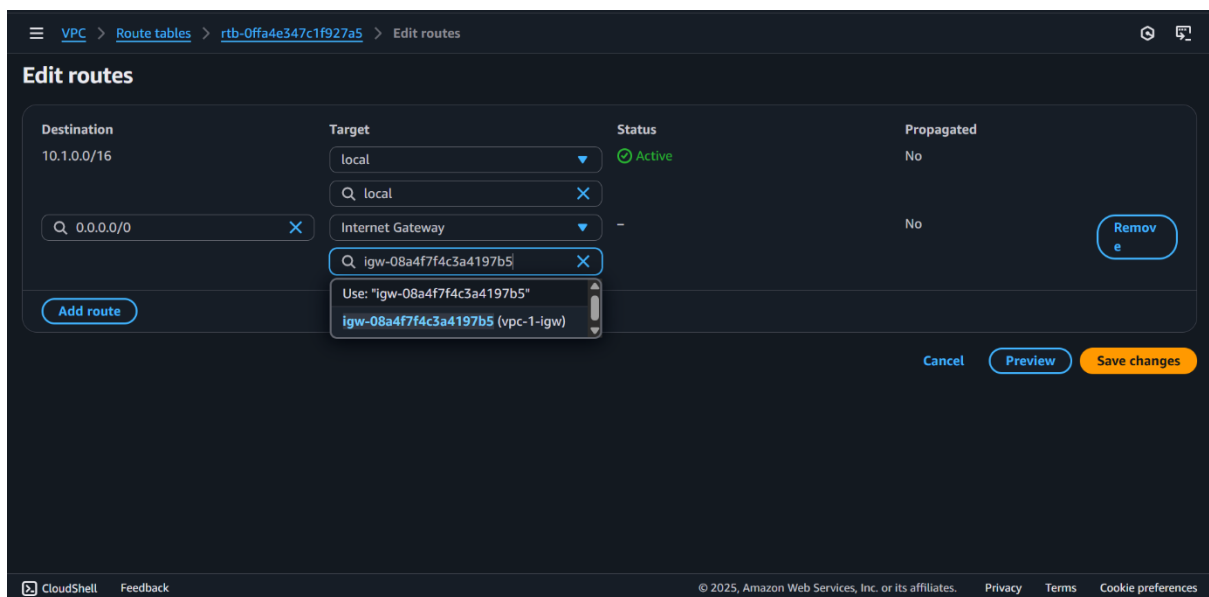
Find internet gateways by attribute or tag

| <input type="checkbox"/> | Name | Internet gateway ID | State | VPC ID |
|--------------------------|-----------|-----------------------|----------|-----------------------|
| <input type="checkbox"/> | - | igw-04e24df650416e88e | Attached | vpc-0f88de2f2f2828892 |
| <input type="checkbox"/> | vpc-1-igw | igw-08a4f7f4c3a4197b5 | Detached | - |

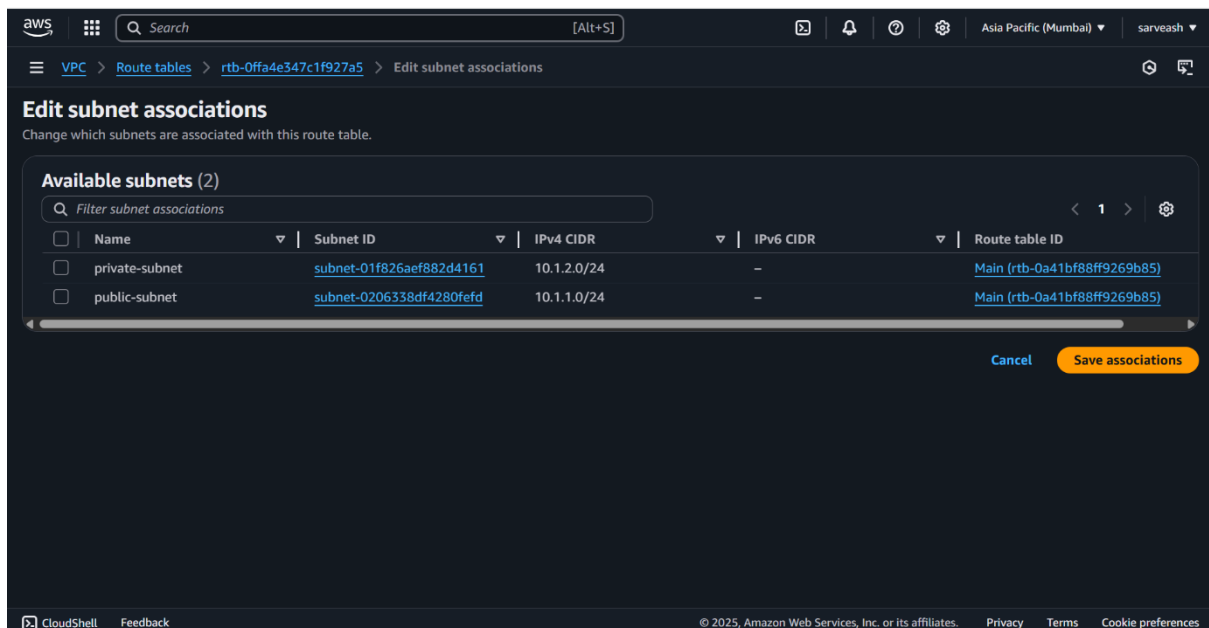
Select an internet gateway above



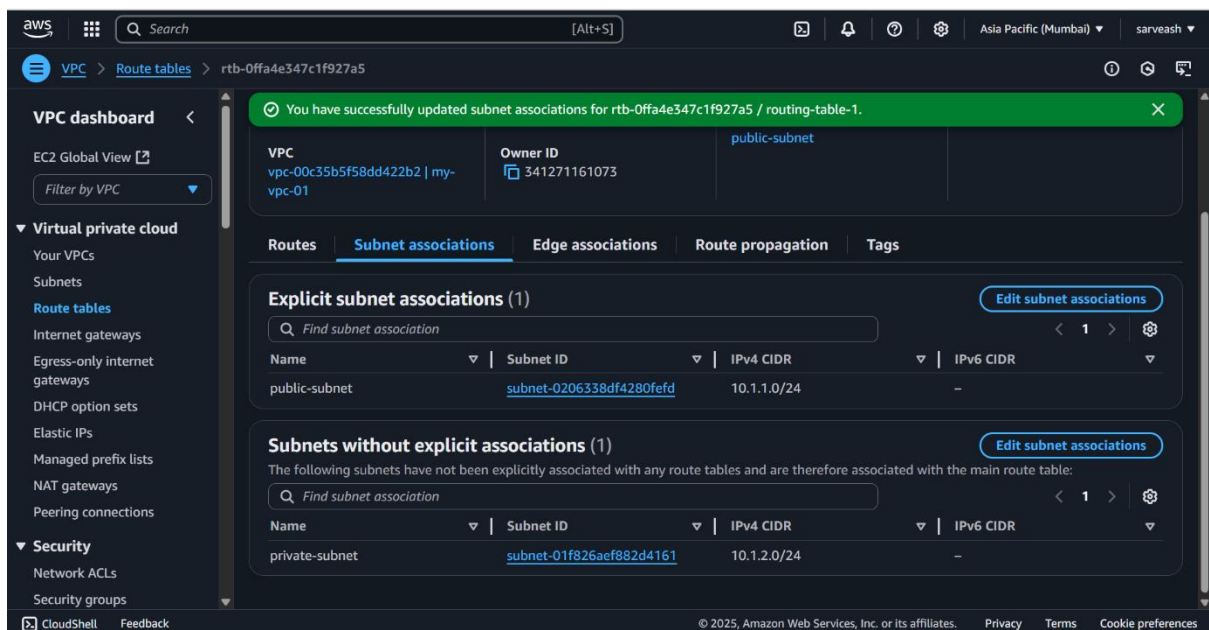
Step 11 : After that go to internet gateway and create a internet gateway and attach it to the vpc.



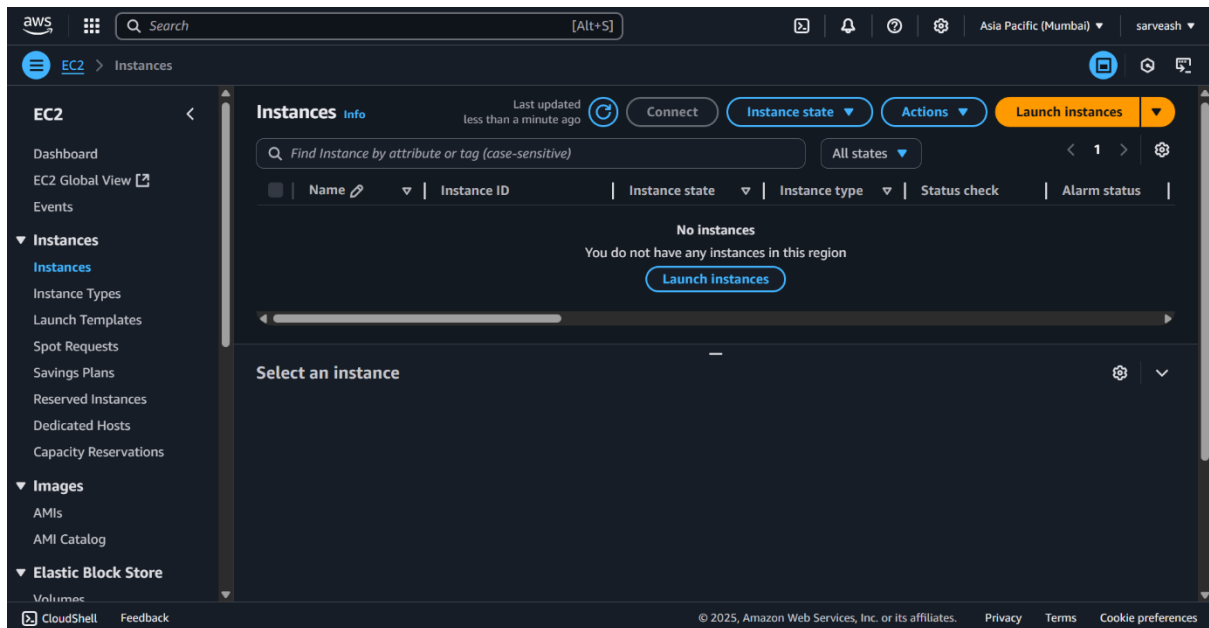
Step 12 : After that go to routing table and select the routing table you have created and click on edit route and add the internet gateway that you have been created and click on save the changes.



Step 13 : After step 12 go to edit subnet association of the created routing table. And select the subnet that you want to associate with the routing table. In this case select public subnet.

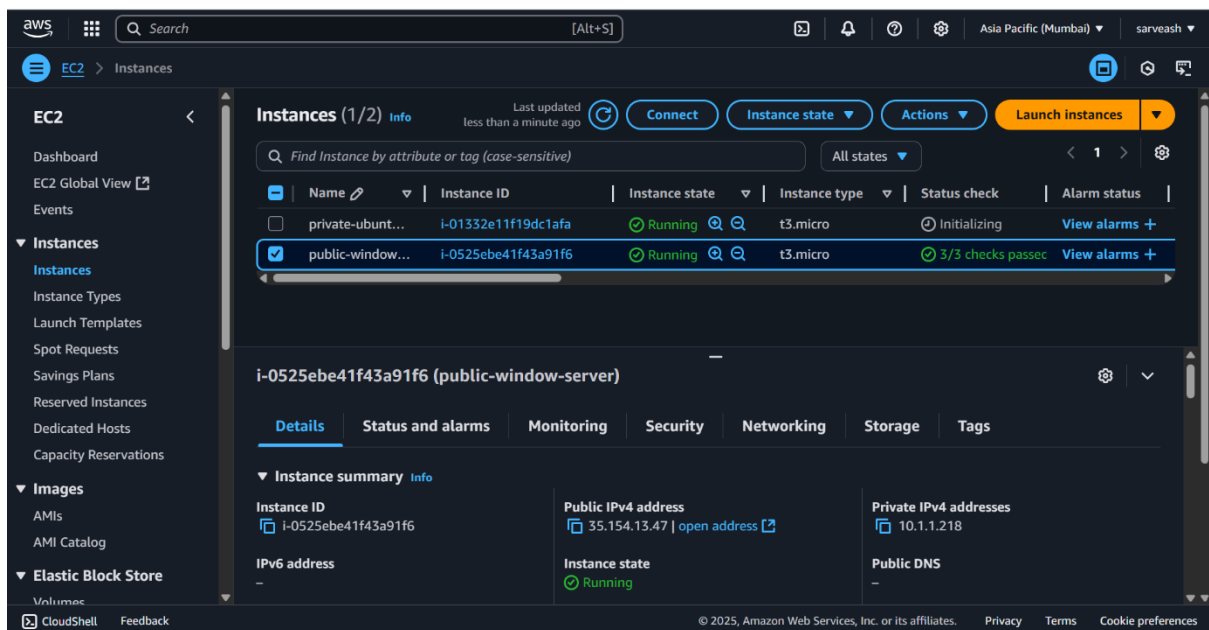


Step 14 : Here you can see that the public subnet is associated with the subnet that has been created by us and the private subnet has been associated with the main route table.



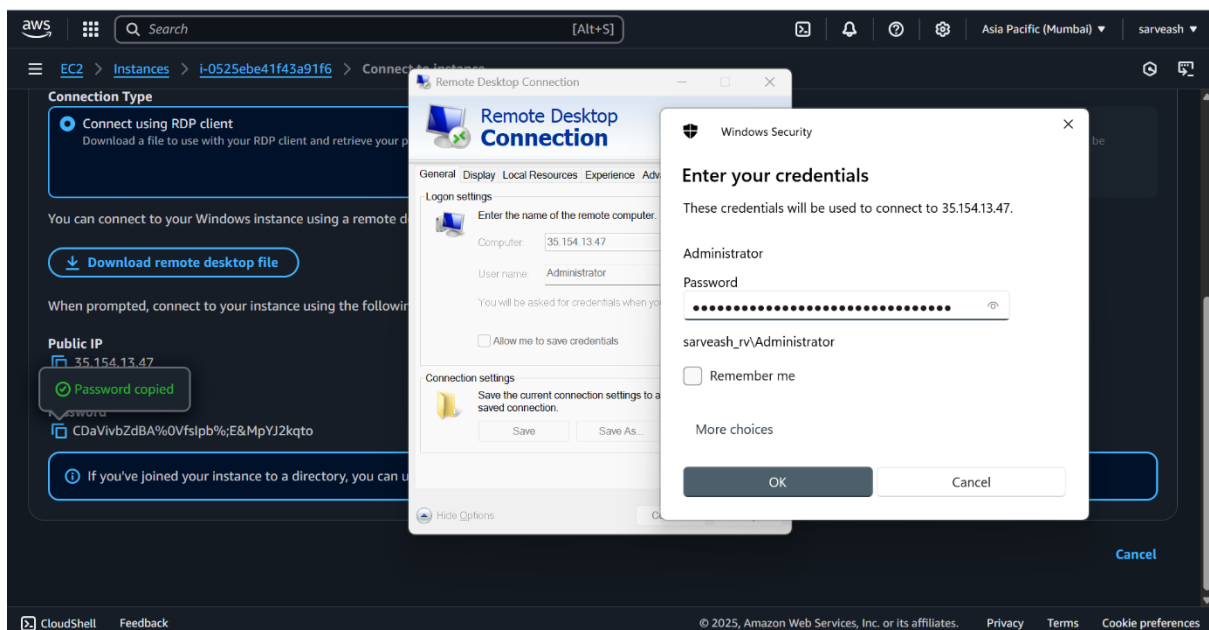
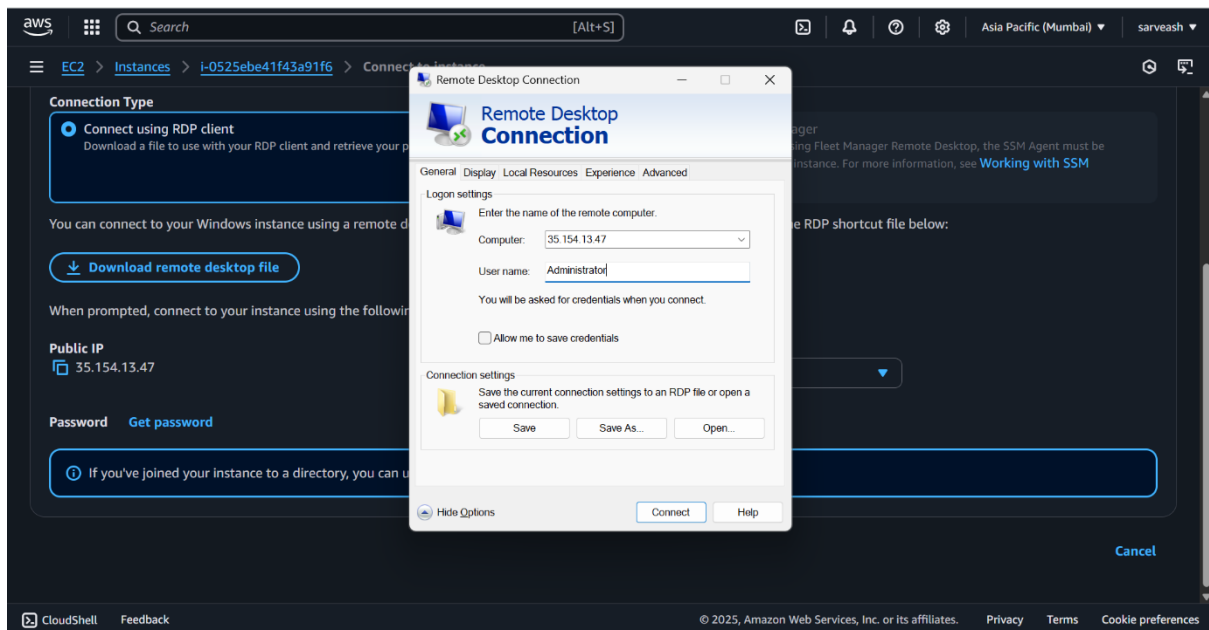
Step 15 : Next in search box search for EC2 . click on it and go to instances.

Step 16 : After step 15 click on launch instances.



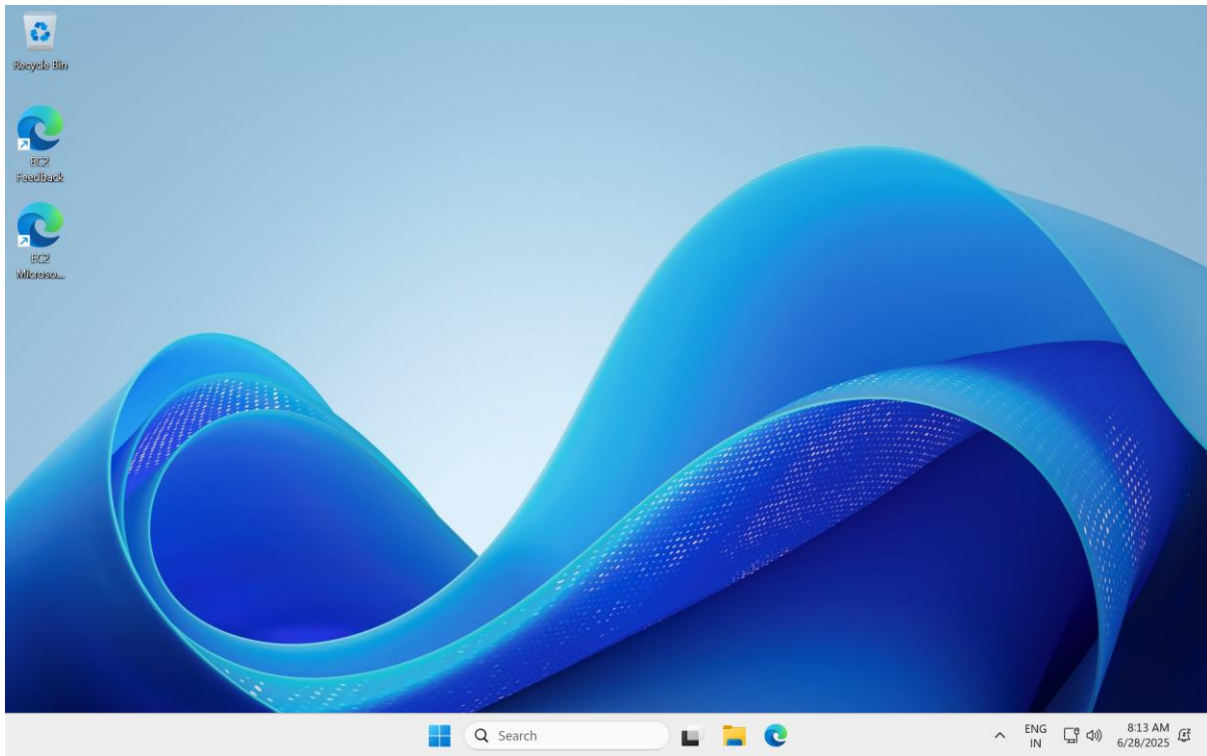
Step 17 : After filling up the fields and all other necessary details click on launch instance. Here create two instances window and ubuntu instances.**Note**(The VPC will be the same and for windows

instance in the subnet field choose public subnet where as for ubuntu instance choose private subnet.)

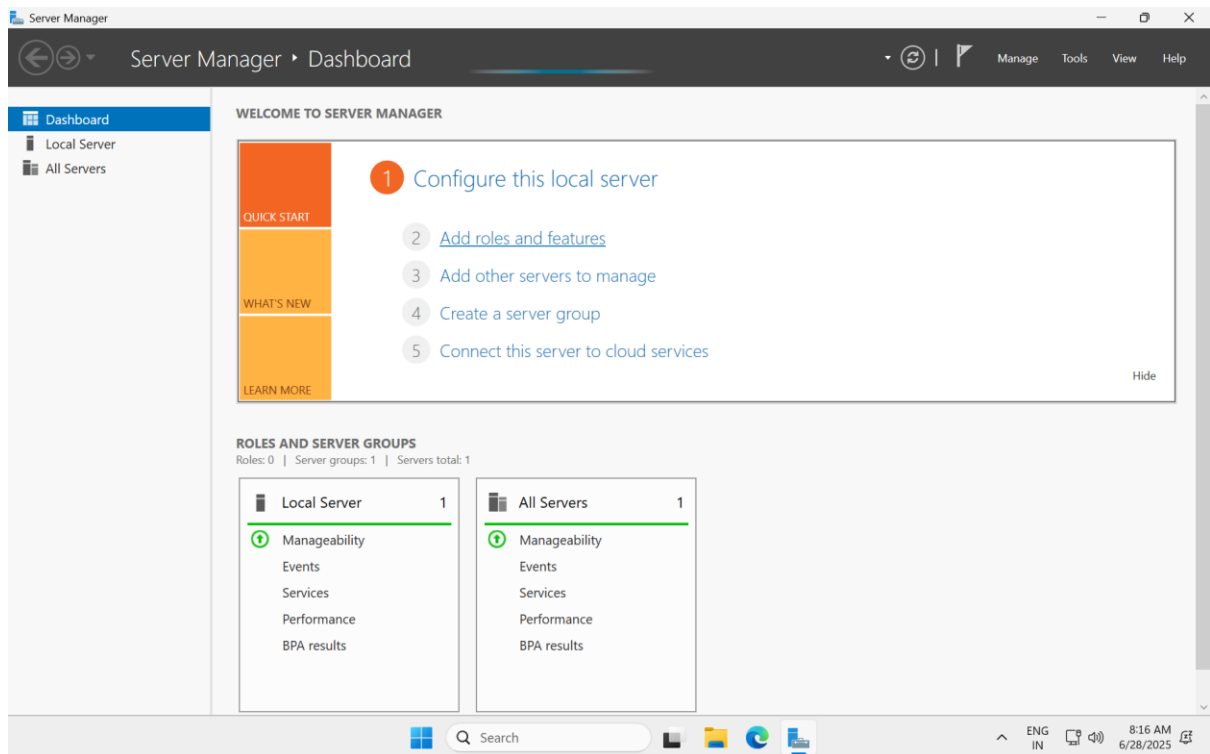


Step 18 : In you pc go to remote desktop connection and give the public ipv4 of the windows server. So for username click on connect on the instances dashboard and go to rdp client there you can find the user name.

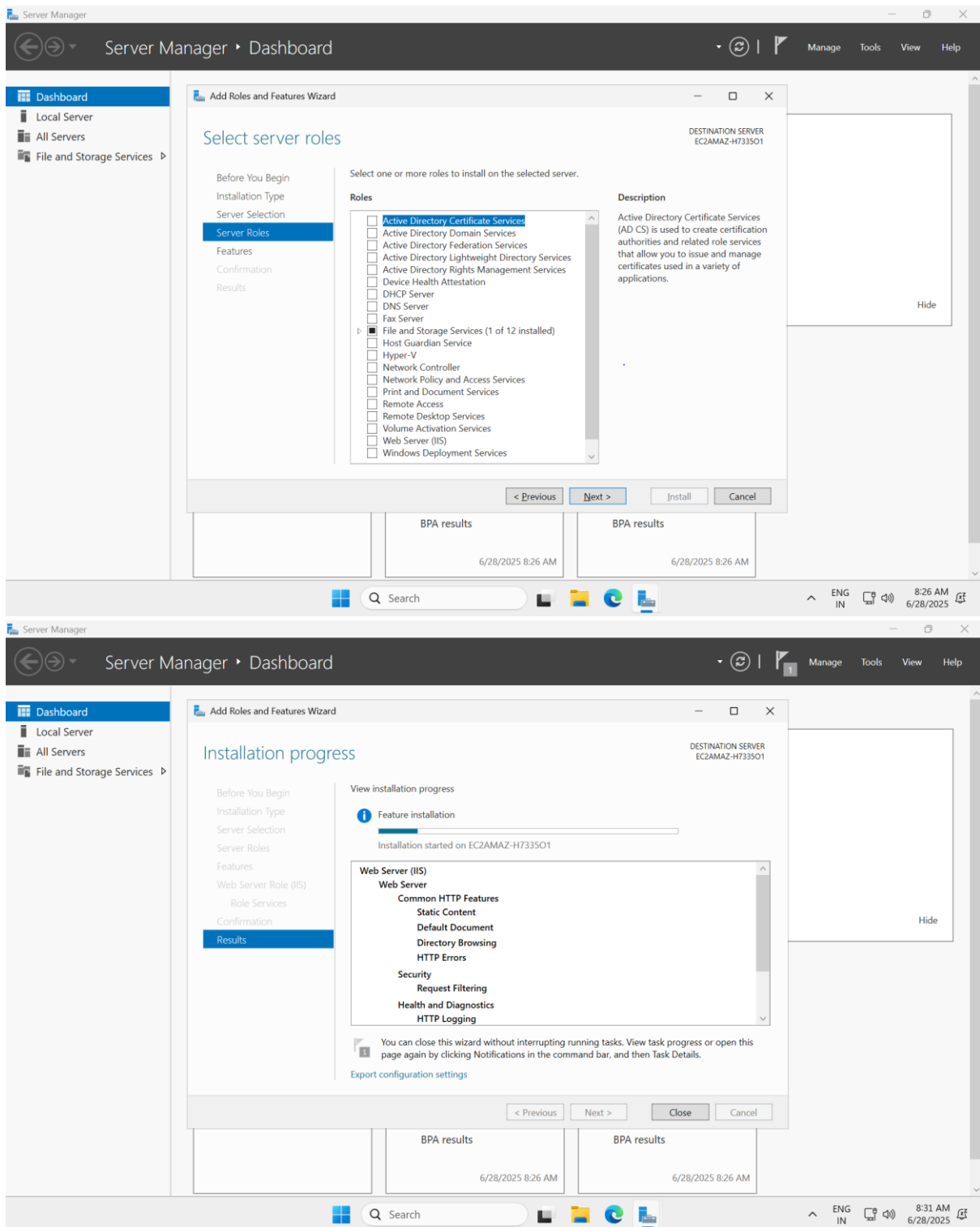
Step 19 : And as for the password click on get password and upload the key-pair pem file and copy the password and click on ok it will lead you the remote server .



Step 20 : The above figure is the remote ec2 server .



Step 21 : After that go to server manager and click on add roles and features . After that click next for three times .



Step 22 : Here click on to Web server IIS so that the remote server will acts as web server.Click on next and the click on install.

wwwroot

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This PC > Windows (C:) > inetpub > wwwroot

Search wwwroot

New

📄

✂

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🗑

↕ Sort

☰ View

⋮

Details

Home

Gallery

Desktop

Documents

Downloads

Pictures

Music

Videos

This PC

Network

| Name | Date modified | Type | Size |
|----------|-------------------|--------------------------|-------|
| iisstart | 6/28/2025 8:32 AM | Microsoft Edge HTML File | 1 KB |
| iisstart | 6/28/2025 8:32 AM | PNG File | 98 KB |

2 Items

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8:49 AM 6/28/2025

wwwroot

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This PC > Windows (C:) > inetpub > wwwroot >

Search wwwroot

New

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Details

Home

Gallery

Desktop

Documents

Downloads

Pictures

Music

Videos

This PC

Network

| Name | Date modified | Type | Size |
|-----------------|-------------------|--------------------------|-------|
| contact | 6/26/2025 2:38 PM | Microsoft Edge HTML File | 7 KB |
| index | 6/26/2025 2:38 PM | Microsoft Edge HTML File | 15 KB |
| product-details | 6/26/2025 2:38 PM | Microsoft Edge HTML File | 10 KB |
| shop | 6/26/2025 2:38 PM | Microsoft Edge HTML File | 12 KB |
| assets | 6/28/2025 8:50 AM | File folder | |
| vendor | 6/28/2025 8:50 AM | File folder | |

6 Items

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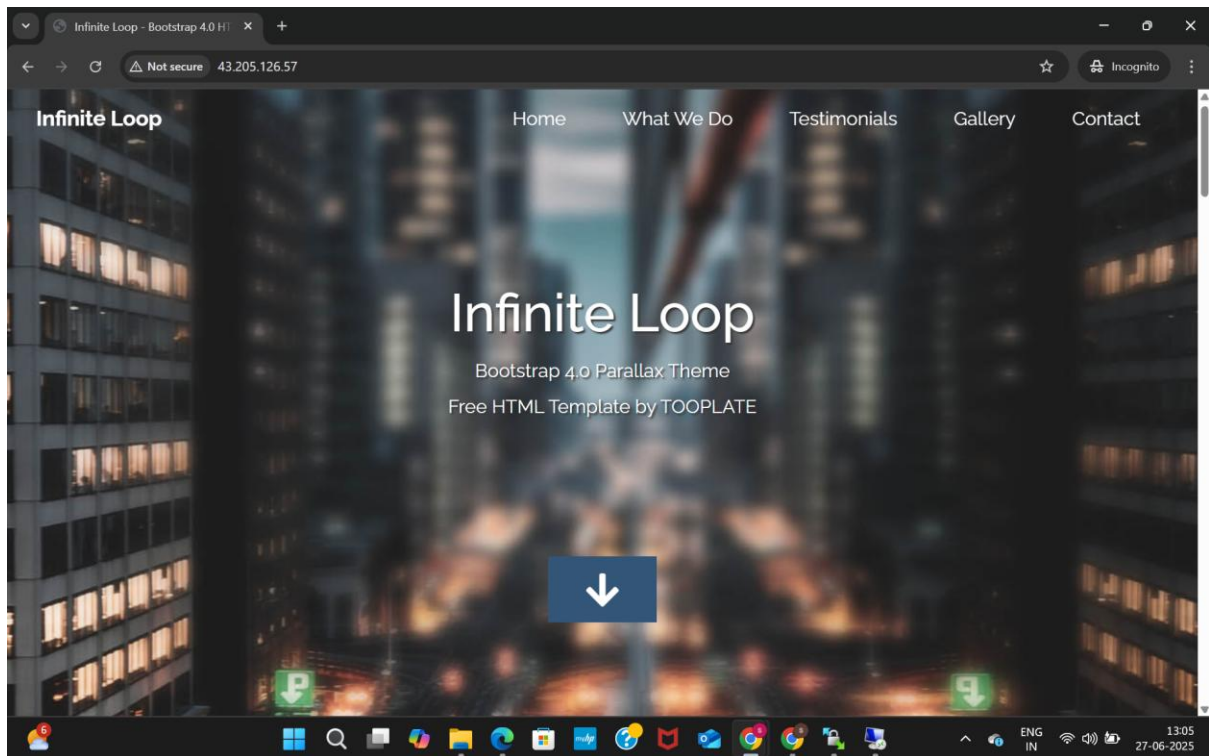
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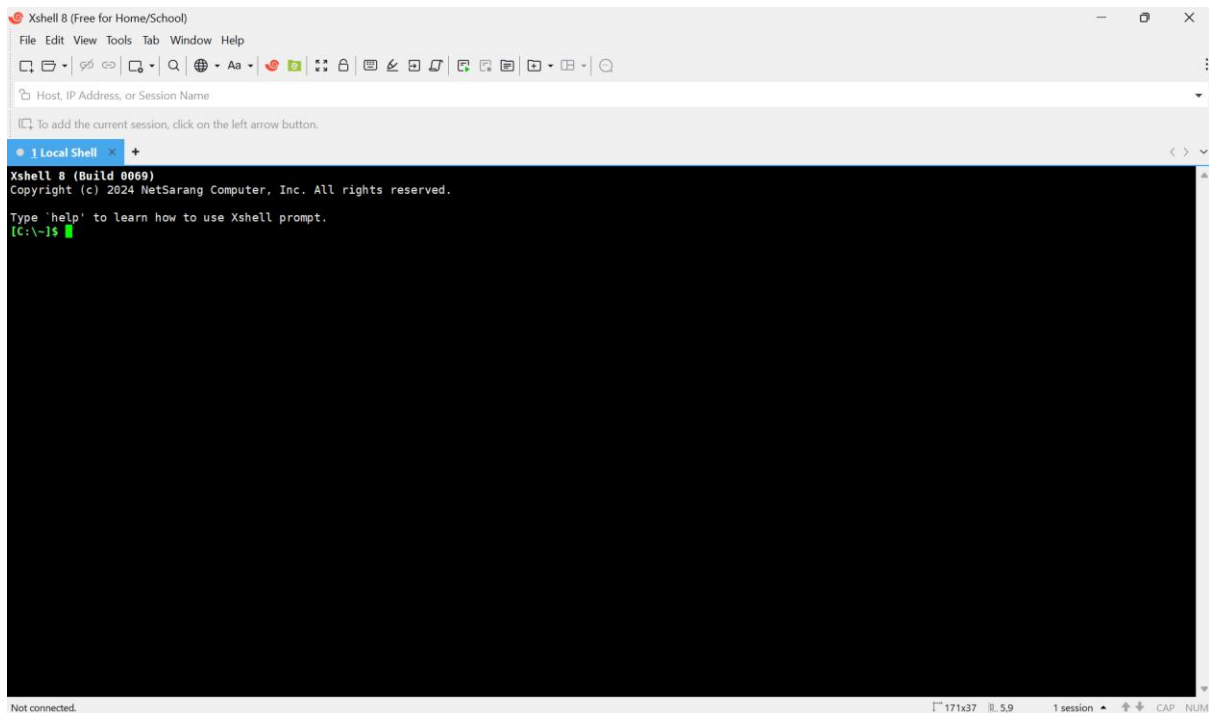
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ENG IN

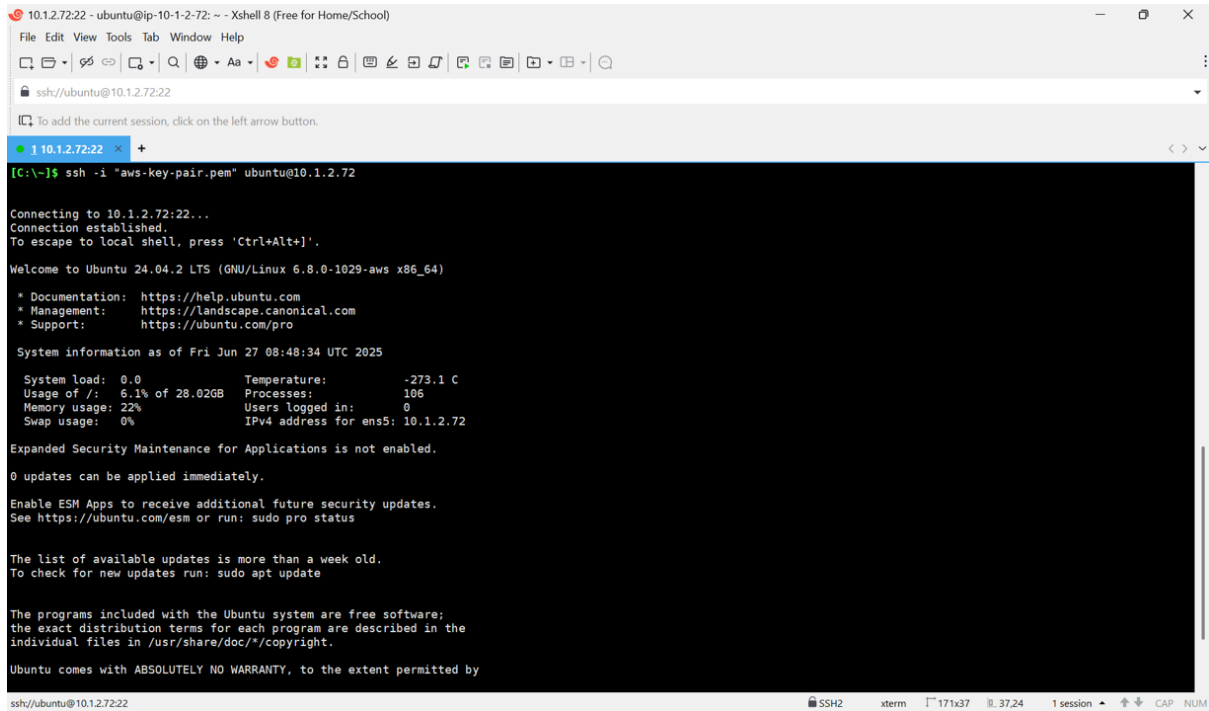
8:51 AM 6/28/2025



Step 23 : After that go to files and go to `c://intelpub/wwwroot/` and delete the existing file and add the basic html and css file .



Step 24 : In the remote server install xshell (linux or ubuntu interface). And open it.



```
10.1.2.72:22 - ubuntu@ip-10-1-2-72: ~ - Xshell 8 (Free for Home/School)
File Edit View Tools Tab Window Help
ssh://ubuntu@10.1.2.72:22
To add the current session, click on the left arrow button.
1 10.1.2.72:22
[c:\~]$ ssh -i "aws-key-pair.pem" ubuntu@10.1.2.72

Connecting to 10.1.2.72:22...
Connection established.
To escape to local shell, press 'Ctrl+Alt+J'.

Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1029-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Fri Jun 27 08:48:34 UTC 2025

System load:  0.0          Temperature:   -273.1 C
Usage of /:   6.1% of 28.0GB Processes:      106
Memory usage: 22%         Users logged in: 0
Swap usage:   0%          IPv4 address for ens5: 10.1.2.72

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
```

Step 25 : In that first type `ssh -I "aws-key-pair.pem"`
`ubuntu@<private-ipv4 address>`.To get it go to ec2 instance select the
ubuntu server created and click on connect on the above dashboard
and go to SSH client And at the bottom you can see it .

Step 26 : Then do the following commands:

- ~ `sudo su`
- ~ `cd`
- ~ `sudo apt update`
- ~ `sudo apt install apache2`

Step 27 : With this we will able to make the ubuntu server as the
webserver.

