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MSC(CS) Part I

Cloud Computing Practical Assignment No 5

Working and Implementation of Infrastructure as a service
Task 1: Launch Your Amazon EC2 Instance. Write the shell script in User Data box. The script will:

- Install an Apache web server (httpd)
- Configure the web server to automatically start on boot
- Run the Web server once it has finished installing
- Create a simple web page

Update Your Security Group and Access the Web Server. (Use AWS Platform)

First of all open Virtual Lab. After opening the lab, you will get an interface like Fig 1.

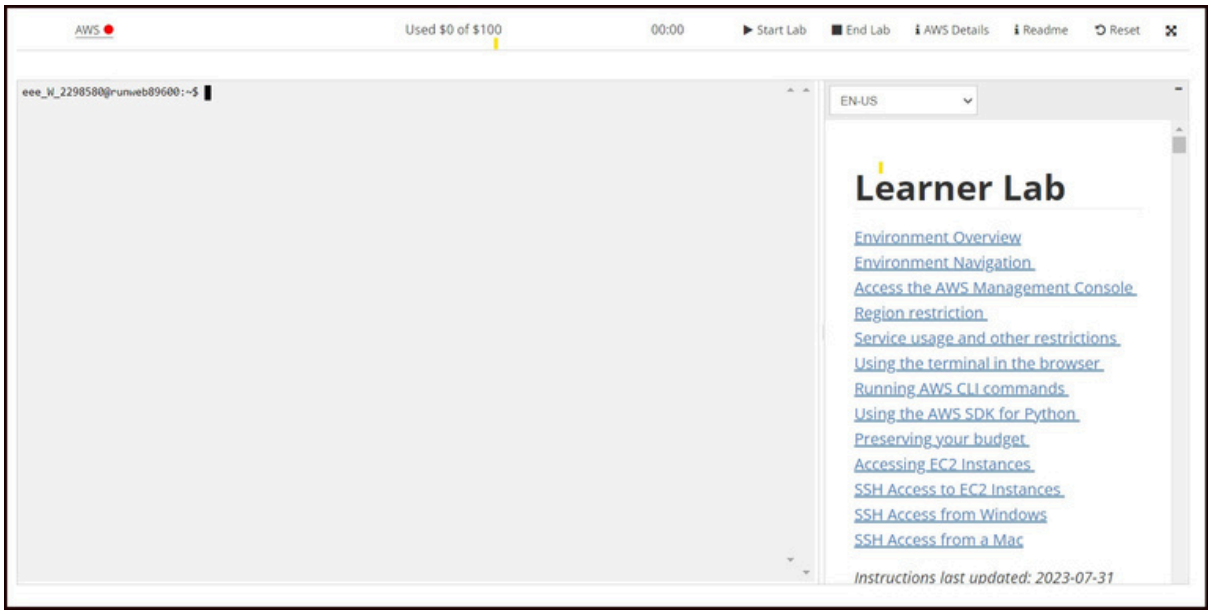

Fig 1

Then click on the Start Lab button. When the circle icon to the right of the AWS link in the upper-left corner turns green, it indicates that the lab environment is ready to use this we can see in Fig 2. To launch the AWS Management Console in a new tab, select the AWS link

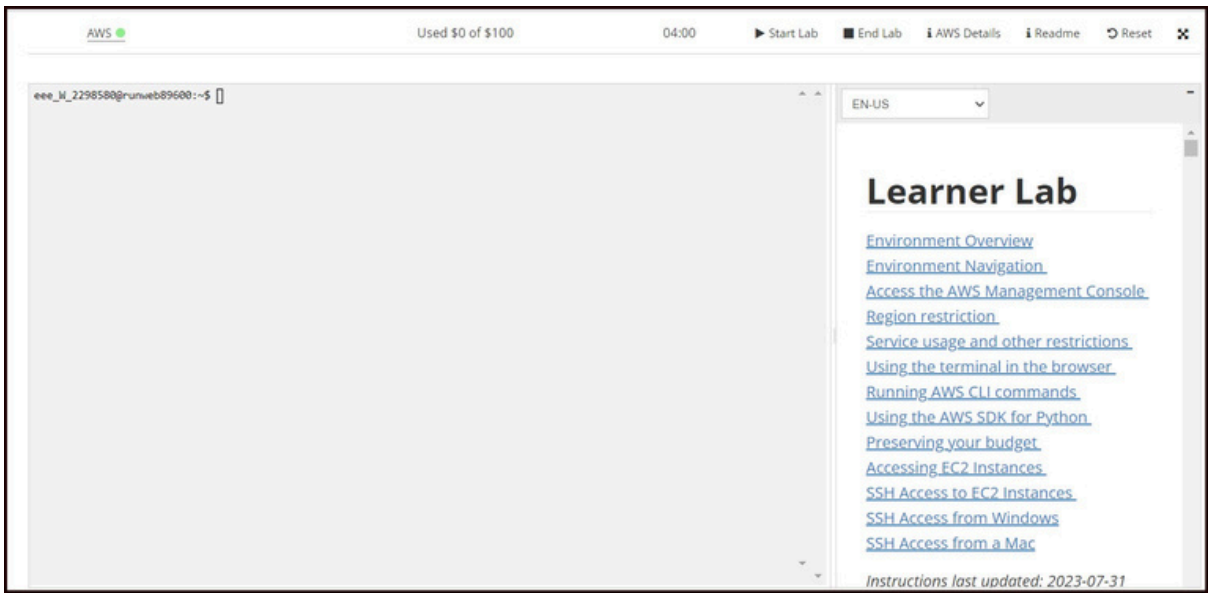

Fig 2

After selecting AWS link new console is open on new tab which we can see in Fig 3. In that we select the EC2 (Elastic Cloud Computing) service. You can see that service in Fig 3. If you have used it before then you can see that service in recently visited service. If you don't see EC2 service then follow the path Services => Compute => EC2.

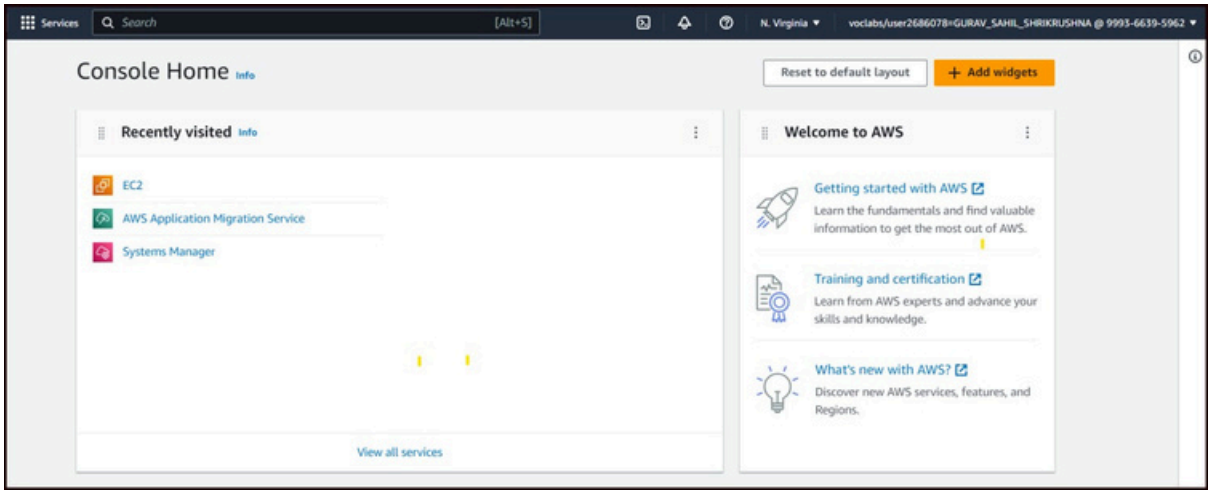

Fig 3

After selecting the EC2 service the new interface will be shown like in Fig 4. In that click on Launch Instance.

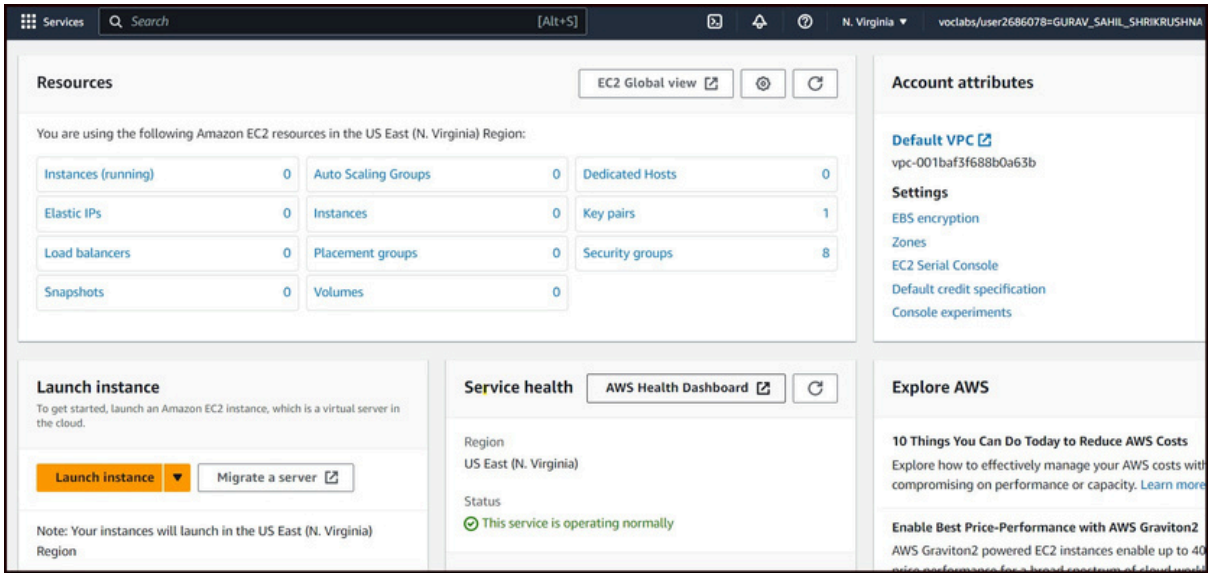

Fig 4

After clicking on Launch Instance some information regarding that instance will appear which we need to fill. That we can see in Fig 5.

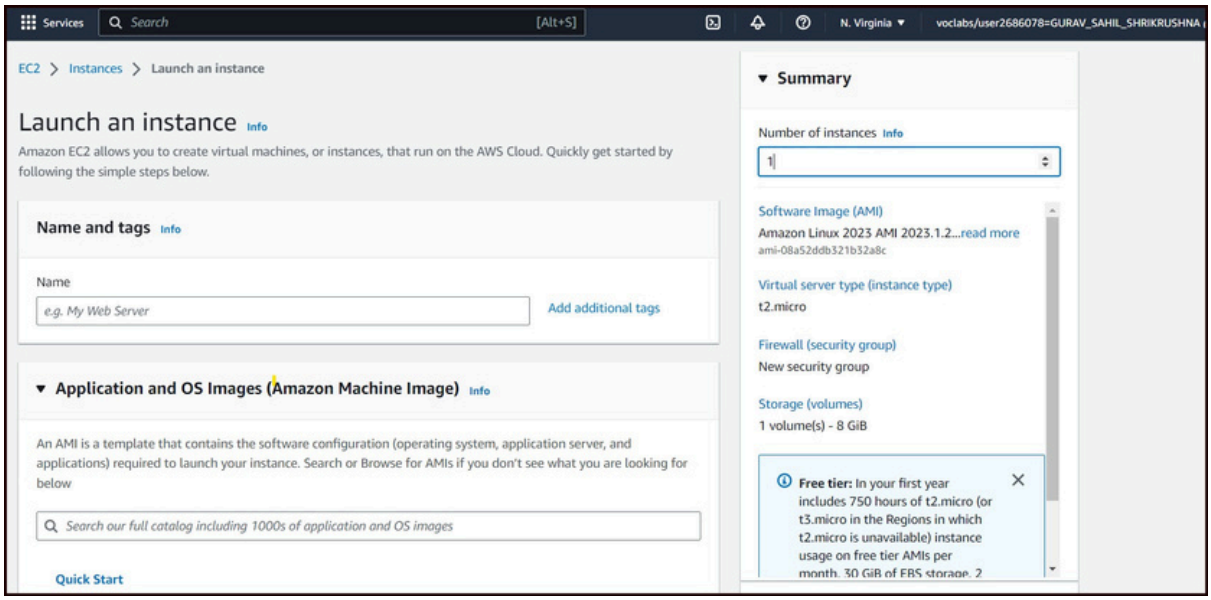

Fig 5

If we create more than one instance then how can we identify our instance? For that reason inside name and tags we write some name for instance so later we can identify them. so here in Fig 6 you can see i named it Web server. Then we need to select the Amazon Machine Image. In this we can specify which operating system (OS) and application server you need to launch in your instance. Here I select Amazon Linux.

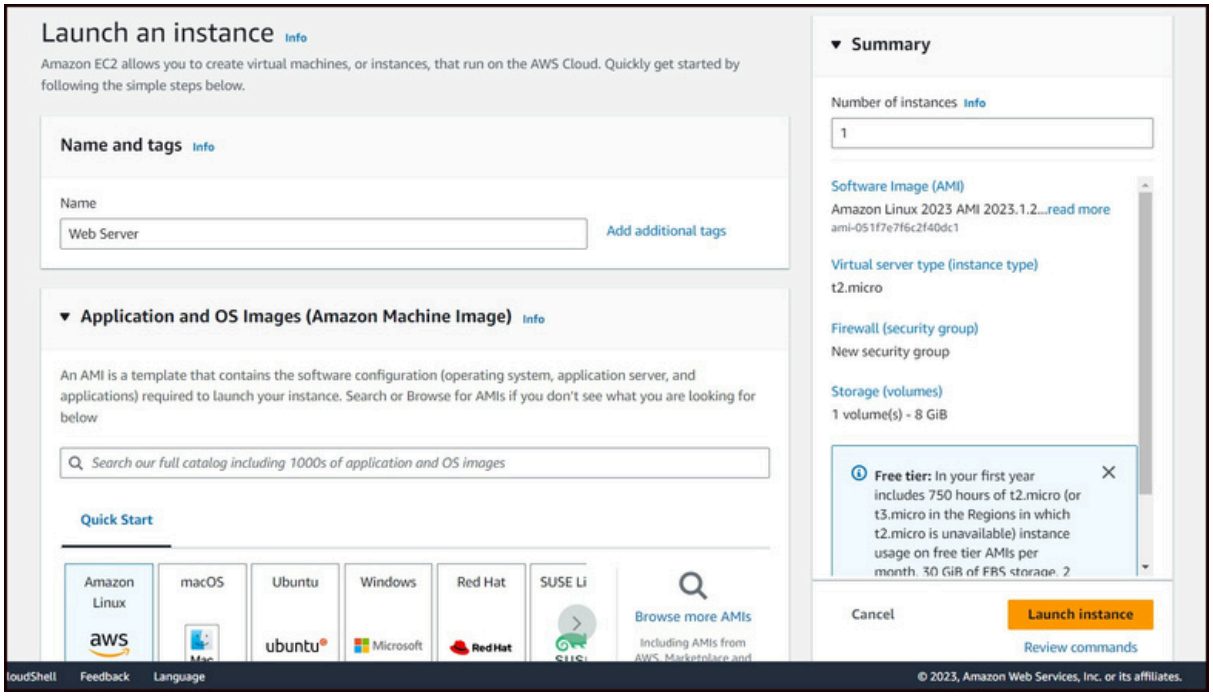

Fig 6

Select the default key pair in Key Pair. Then click on Edit button in Network Settings as shown in Fig 7

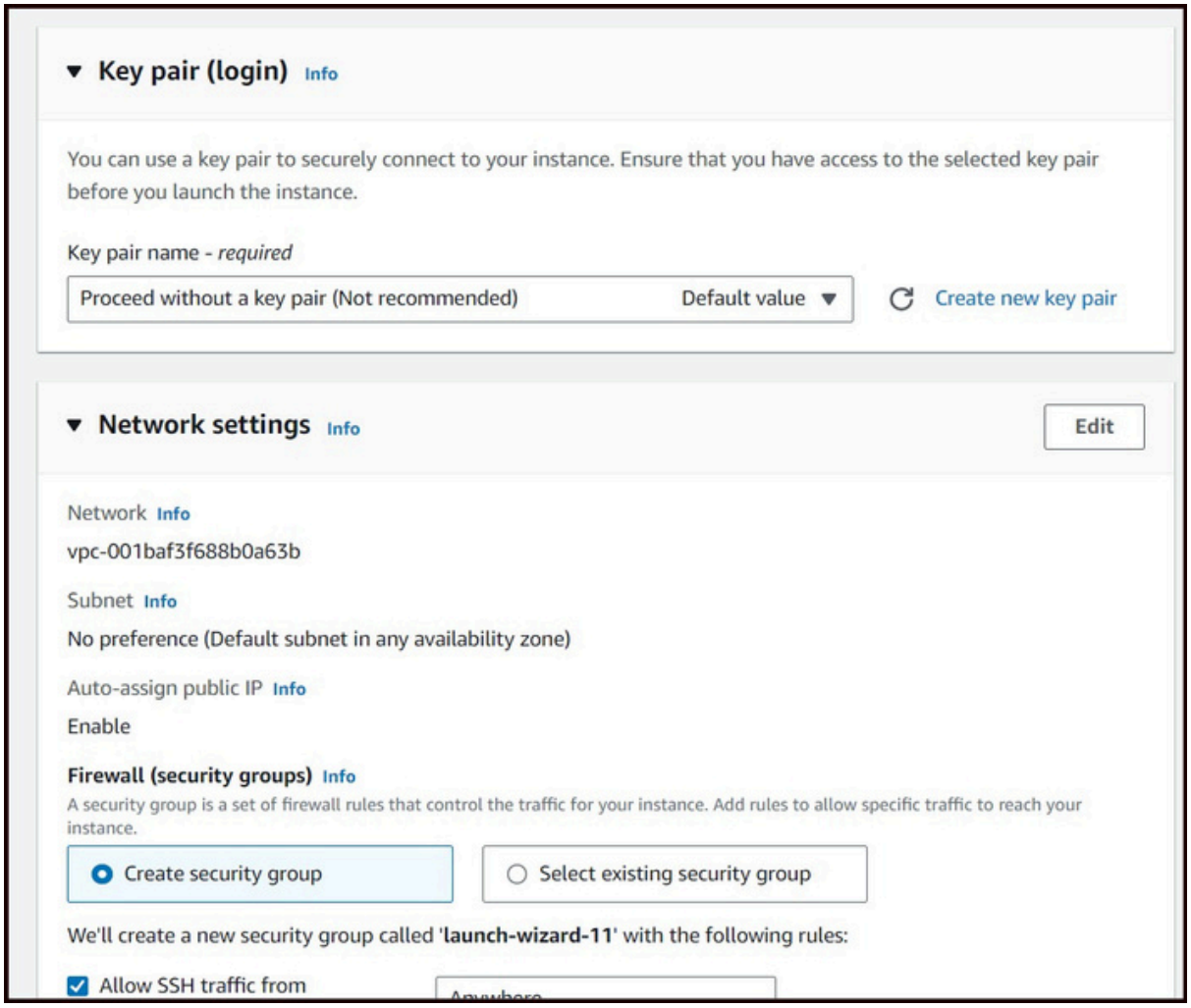

Fig 7

In Network Settings set the security group name as "Web Server Security Group" and the description as "Security group for my web server" as shown in Fig 8. Under Inbound security group rules, notice that one rule exists. Remove this rule. In the *Configure storage* section, keep the default settings

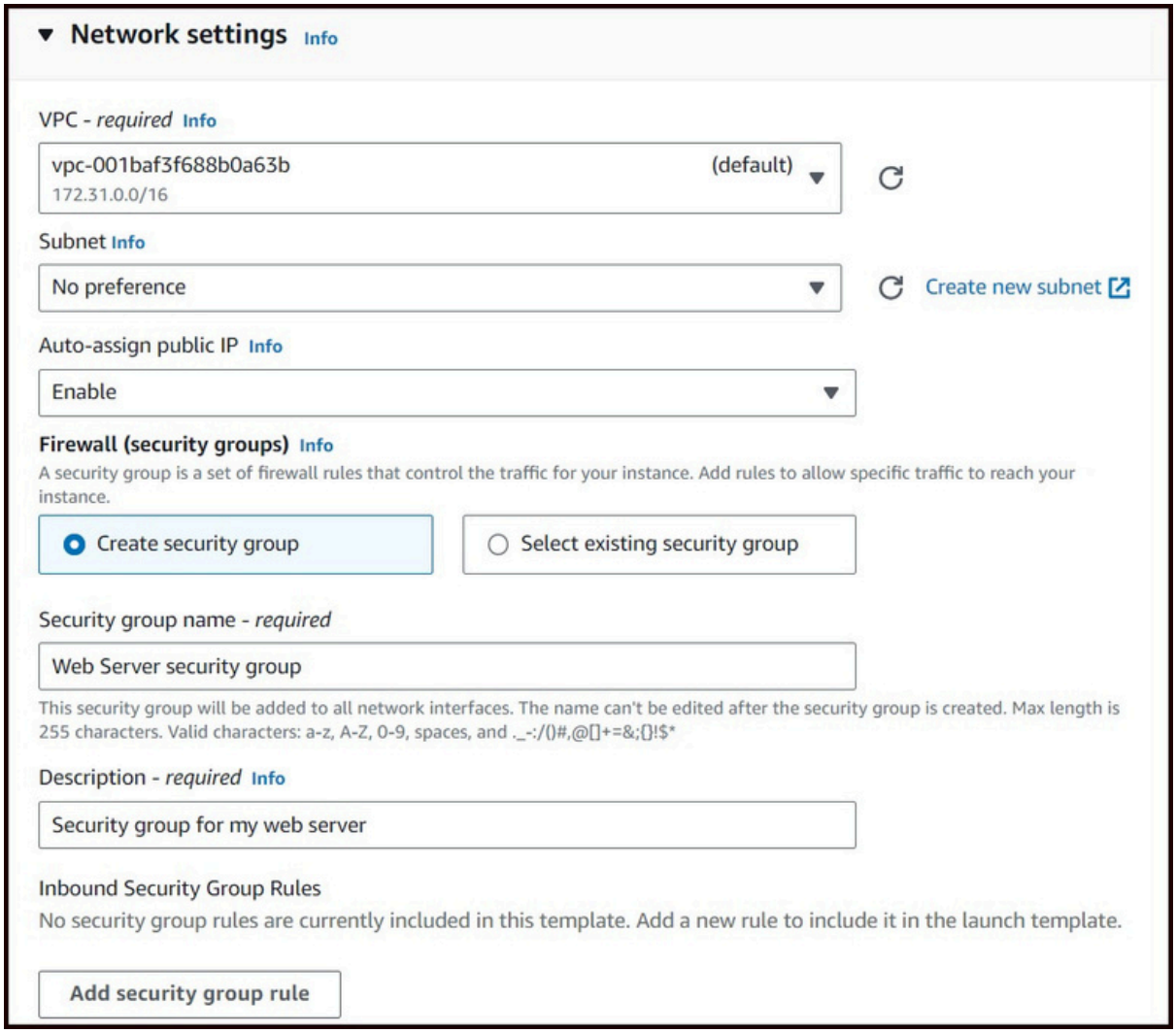

Fig 8

Scroll to the bottom of the page and then copy and paste the code shown below into the User data box as shown in Fig 9. And then click on Launch instance.

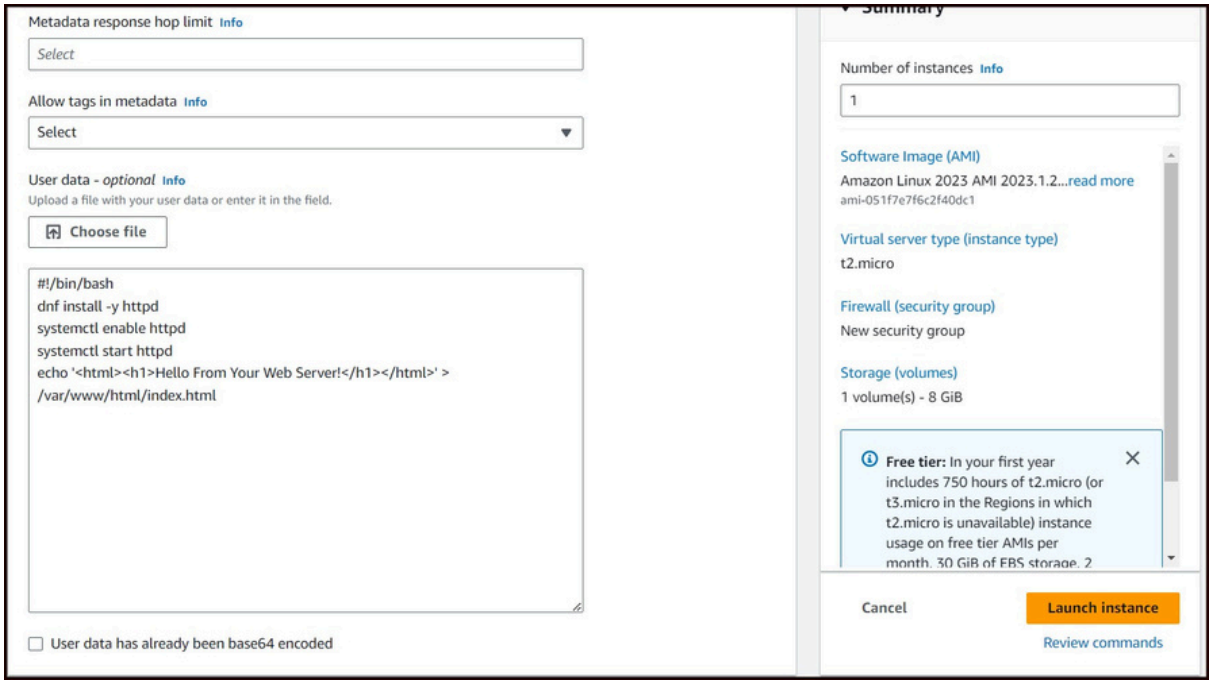

Fig 9

After launching the instance if the instance is created successfully then success message is received as shown in Fig 10

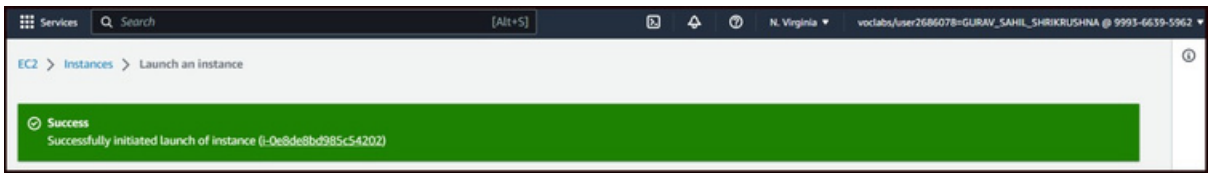

Fig 10

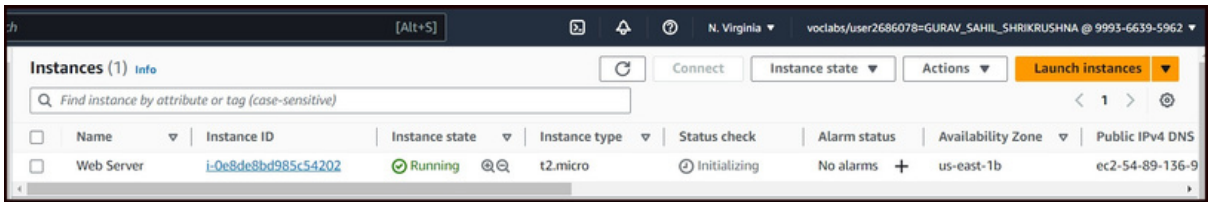

Fig 11

Click on Details to view details of the instance as shown in Fig 12

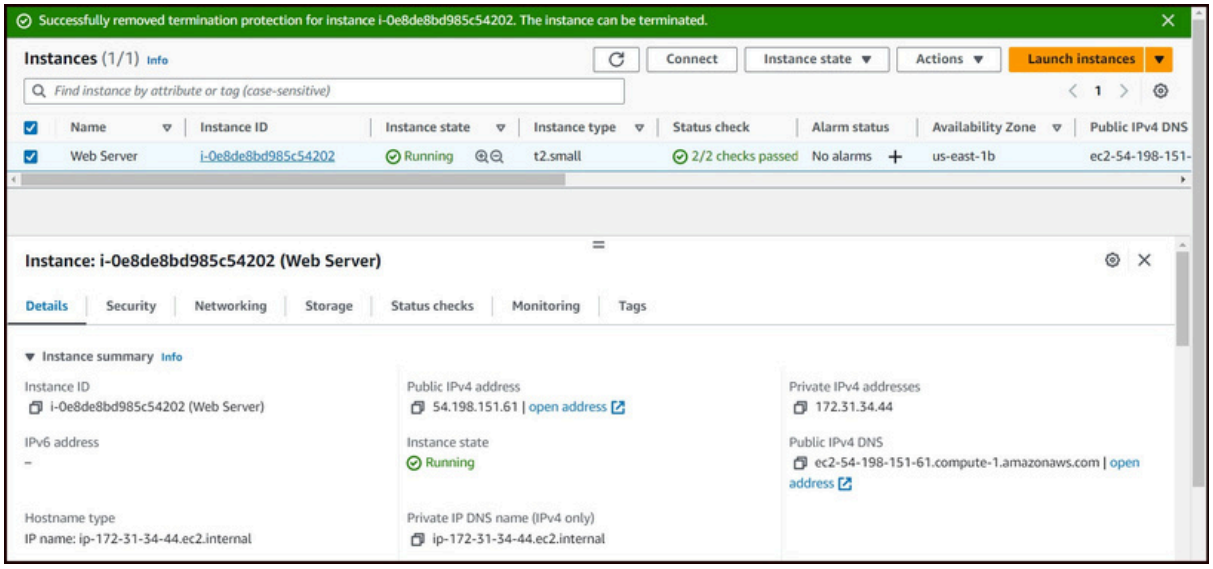

Fig 12

Select the web server, select the Details tab there, copy the public IPv4 address of your instance to your clipboard as shown in Fig 13 and paste it on the new tab.

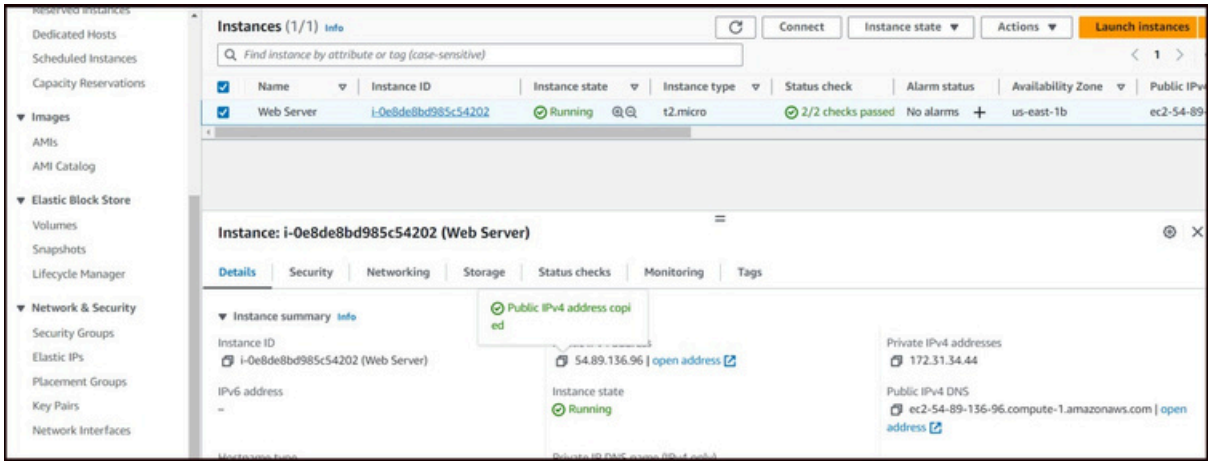

Fig 13

But in Fig 14 we see that currently not able to access your web server because the security group is not allowing inbound traffic on port 80, which is used for HTTP web requests.

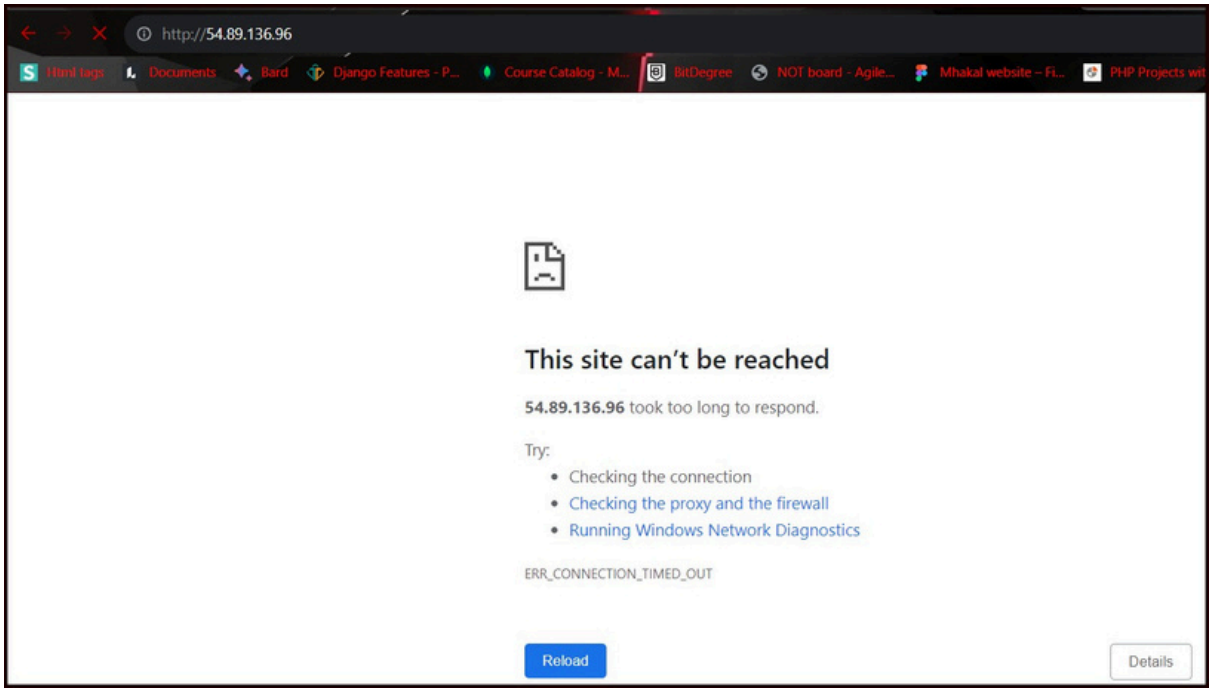

Fig 14

In the left navigation pane, select Security Groups. Then select "Web Server Security Groups" and select the Inbound Rules tab. We can see in Fig 15 that there are currently no inbound rules. Select the Edit Inbound Rules button.

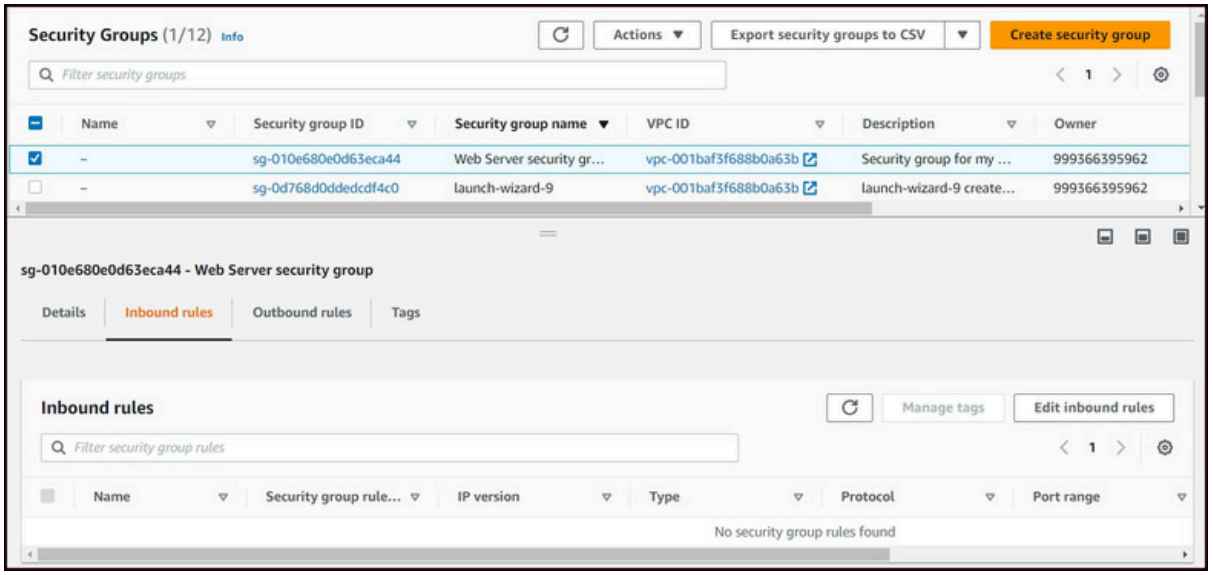

Fig 15

After selecting the "Edit Inbound Rules" button we get a screen like Fig 16, click on Add Rule.

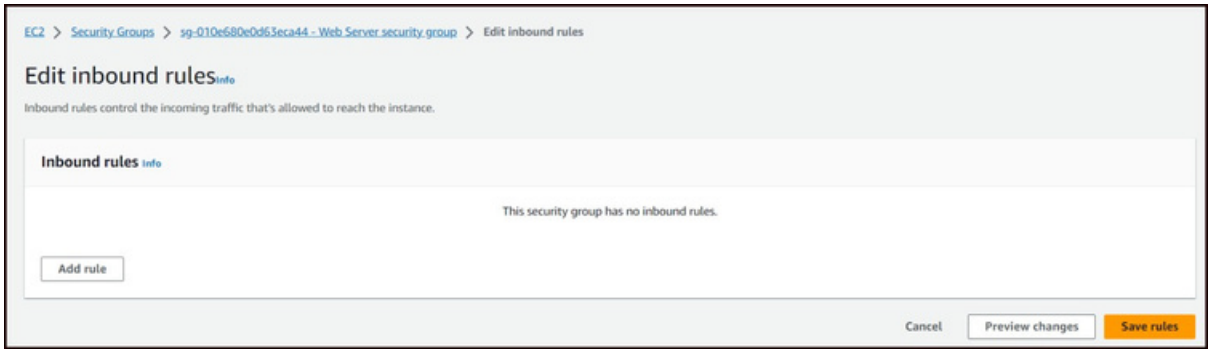

Fig 16

After clicking “Add Rule” we get editable inbound rules, select Type as “HTTP” and Source as "Anywhere-IPv4", similar to Fig 17 and click “Save Rule”.

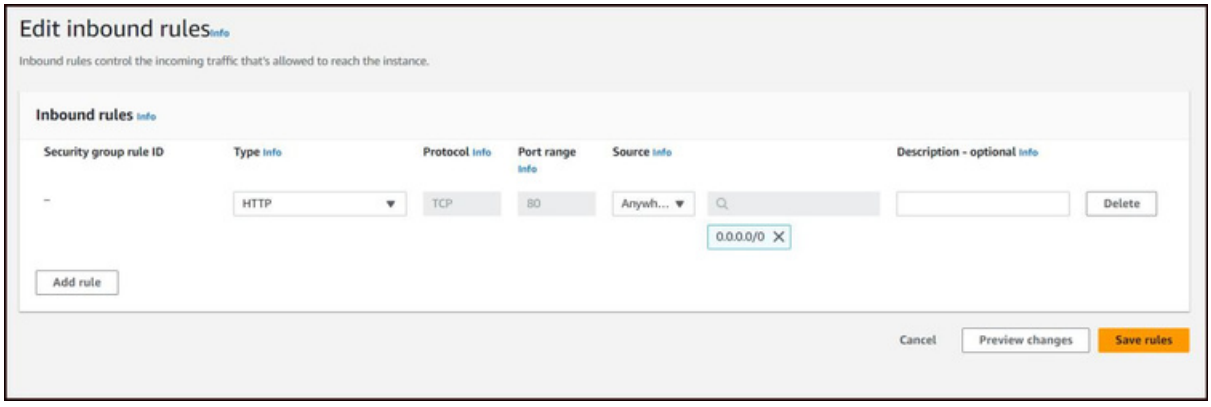

Fig 17

Open the tab we have already pasted the public IPv4 address and refresh it, then we get an output similar to Fig 18.

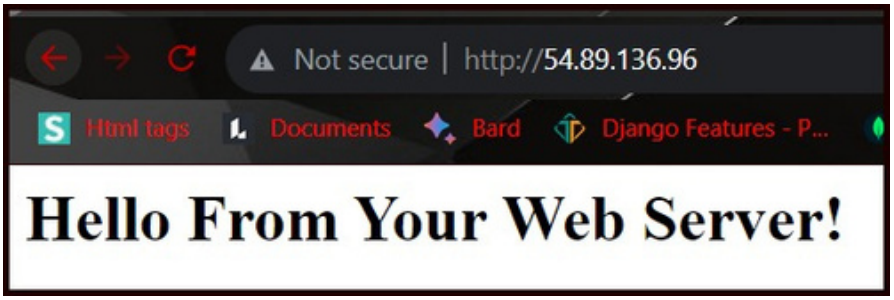

Fig 18

Select the web server, then click at the top of the "Instance State" menu and select "Terminate Instance" as shown in Fig 19.

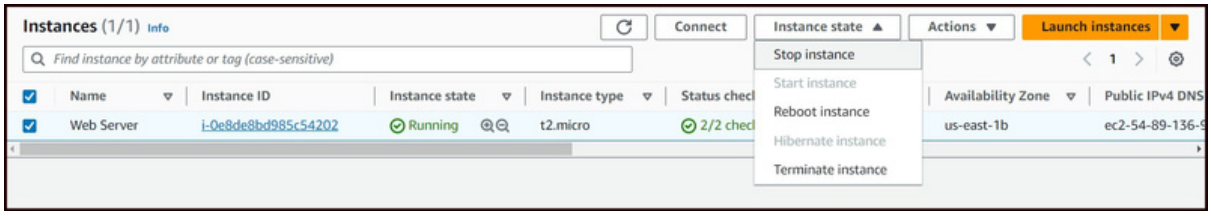

Fig 19