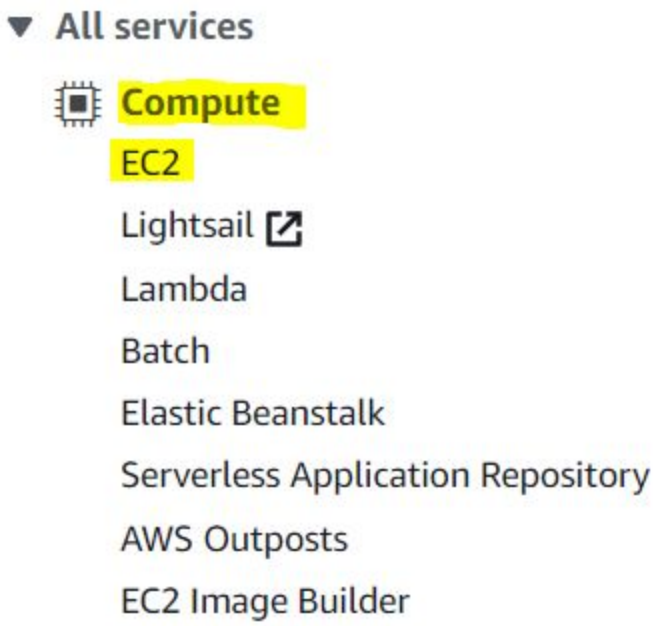
# Launching an EC2 Instance in a VPC

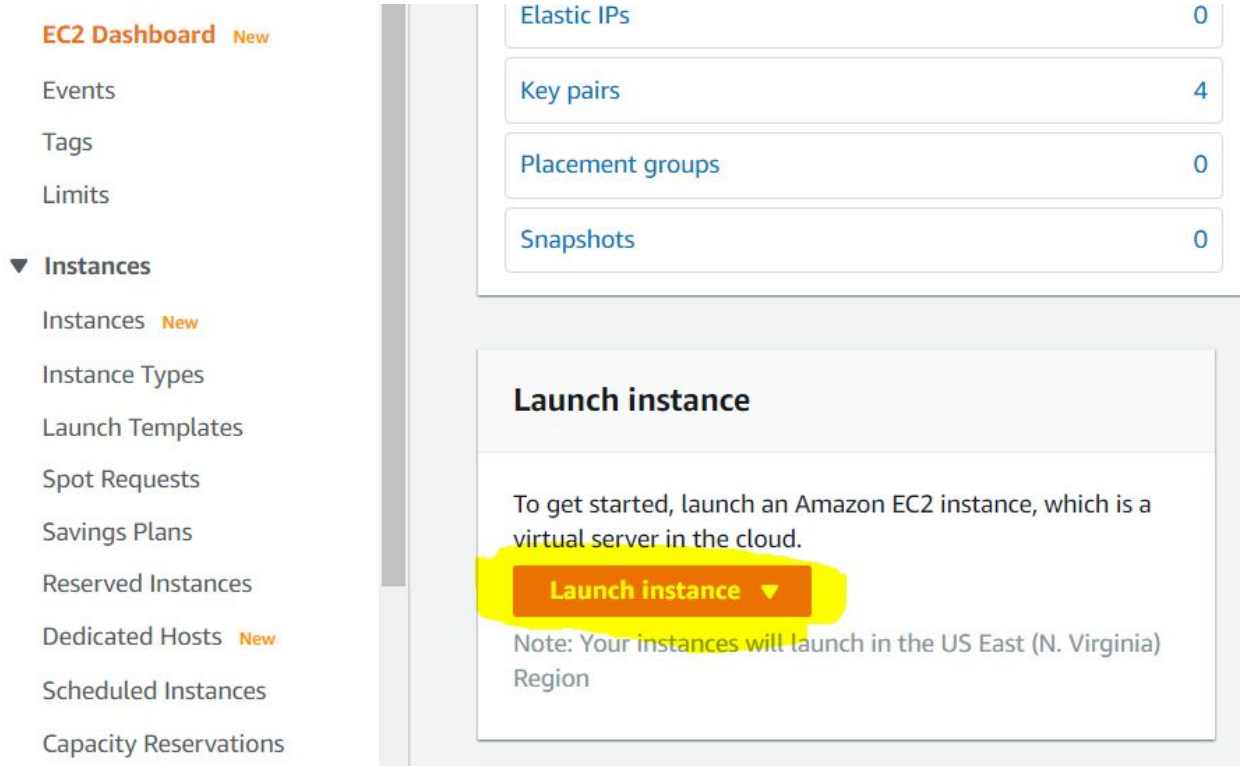
Once, you have created a VPC and a subnet within this VPC, you can now launch your EC2 instance within this VPC.

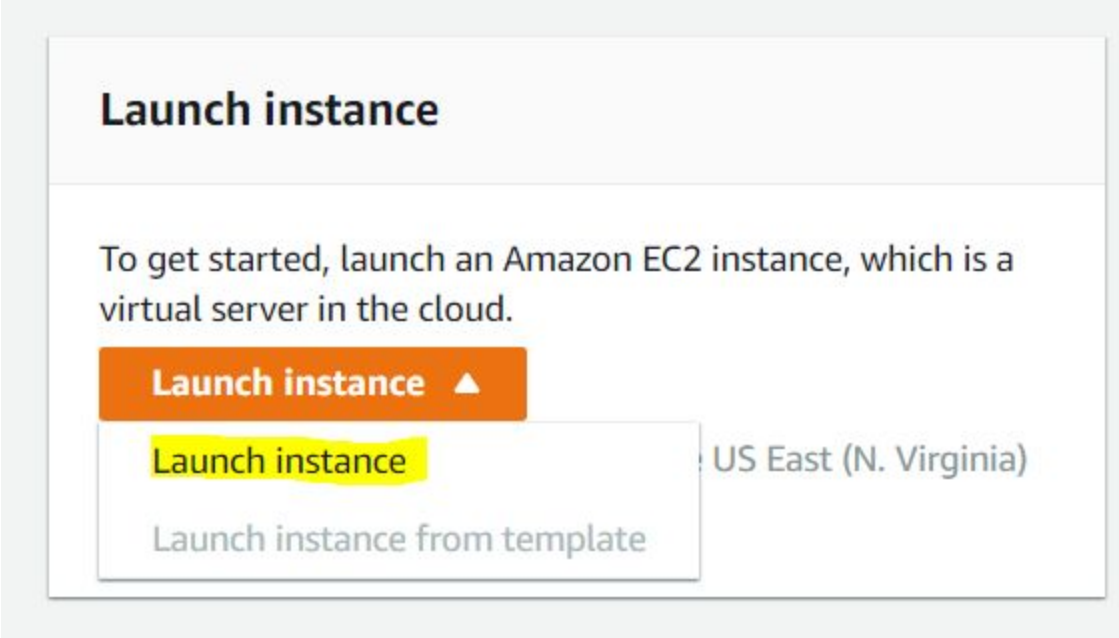
This document will provide you with step by step guide on how to create an EC2 instance within a VPC.

1. On the AWS Management Console, click on the **EC2** service under the **Compute** section as shown below.



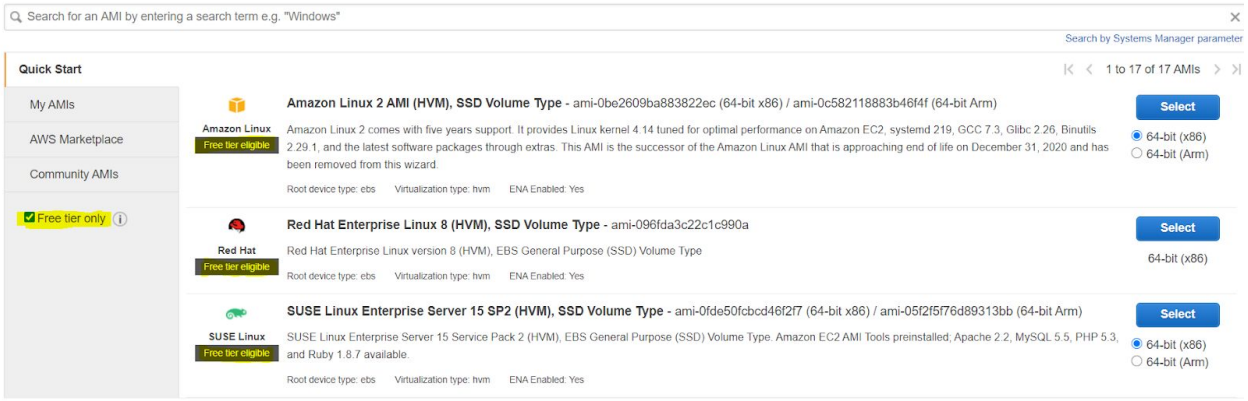

2. Once, you do so, you will be redirected to the EC2 management page. On this page, you need to click on the dropdown next to the **Launch instance** button and click on **Launch instance** as shown below.



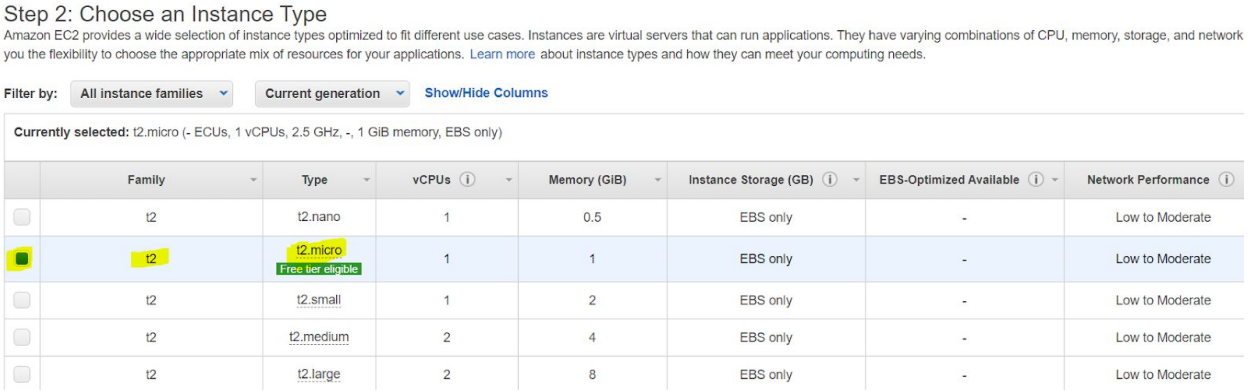

3. Now, you will be redirected to a new page. On this page, you will need to select the **Amazon Machine Image** (AMI) for your EC2 instance. For the purpose of this demonstration, you need to select the machine image that is eligible for the

free tier. For this select the check-box next to the Free tier only as shown below. This will show you all the machines images that are eligible for the free tier.

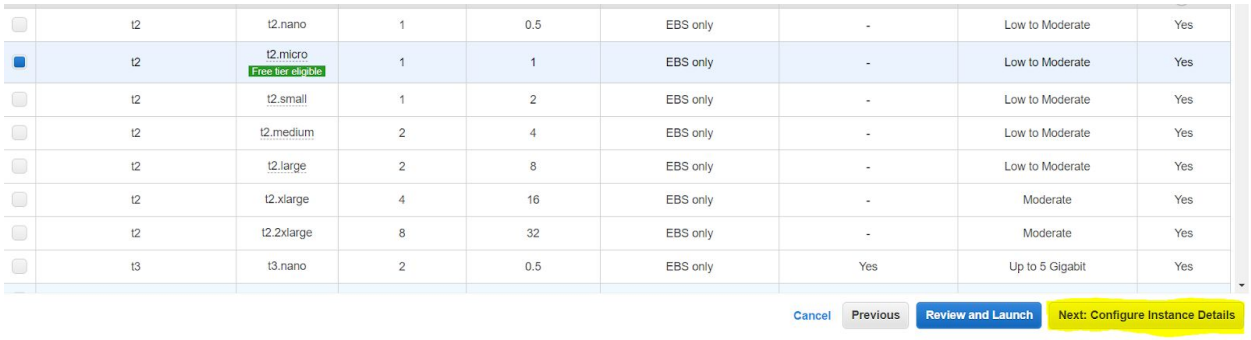



4. Next, you need to select the machine image. Select the Amazon Linux 2 AMI. Click on the **Select** button next to this AMI as shown below.


5. Now, you will be redirected to a new page. On this page, you need to select the **Instance Type**. Select the **t2.micro** instance type as it is eligible for the free tier. This is the instance type that is selected by default.



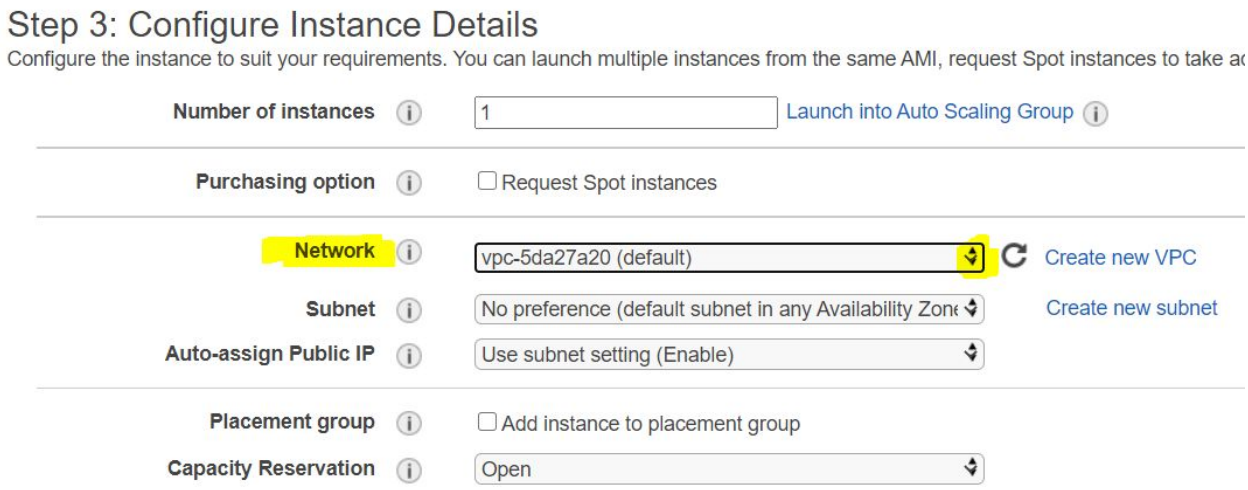
6. Next, click on the button which says **Next: Configure Instance Details** as shown below.



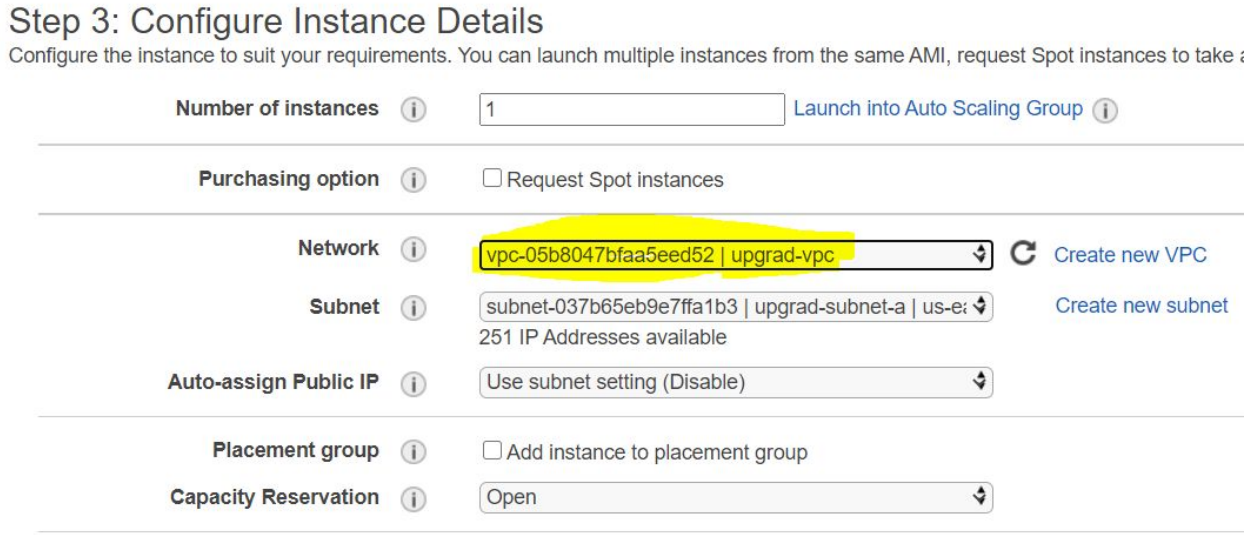
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | t2 | t2.nano | 1 | 0.5 | EBS only | - | Low to Moderate | Yes |
| | t2 | t2.micro Free tier eligible | 1 | 1 | EBS only | - | Low to Moderate | Yes |
| | t2 | t2.small | 1 | 2 | EBS only | - | Low to Moderate | Yes |
| | t2 | t2.medium | 2 | 4 | EBS only | - | Low to Moderate | Yes |
| | t2 | t2.large | 2 | 8 | EBS only | - | Low to Moderate | Yes |
| | t2 | t2.xlarge | 4 | 16 | EBS only | - | Moderate | Yes |
| | t2 | t2.2xlarge | 8 | 32 | EBS only | - | Moderate | Yes |
| | t3 | t3.nano | 2 | 0.5 | EBS only | Yes | Up to 5 Gigabit | Yes |

Cancel | Previous | Review and Launch | Next: Configure Instance Details

7. Now, you will be redirected to a new page. On this page, you will be selecting the **VPC** and the **subnet** that you had created earlier. To select the **VPC** in the **Network** field, click on the dropdown as shown below.

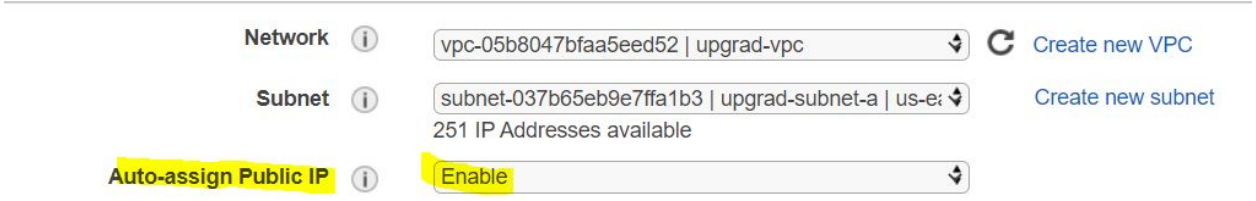



8. Now from the list that appears select the **upgrad-vpc** as shown in the image below.

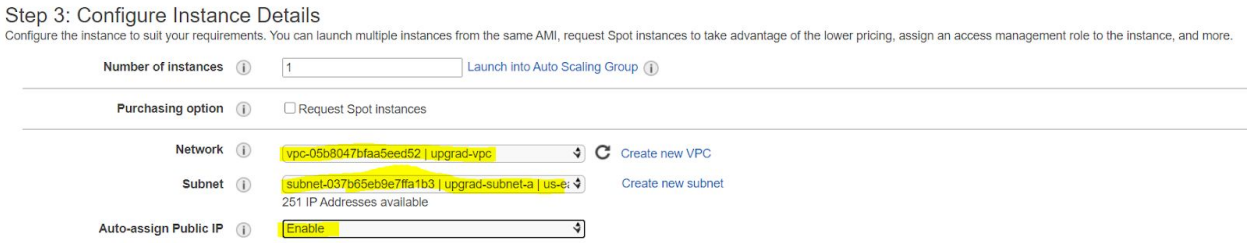



9. Next, you need to select the **Subnet**. Since there is only one subnet associated with the VPC, that subnet is selected by default.

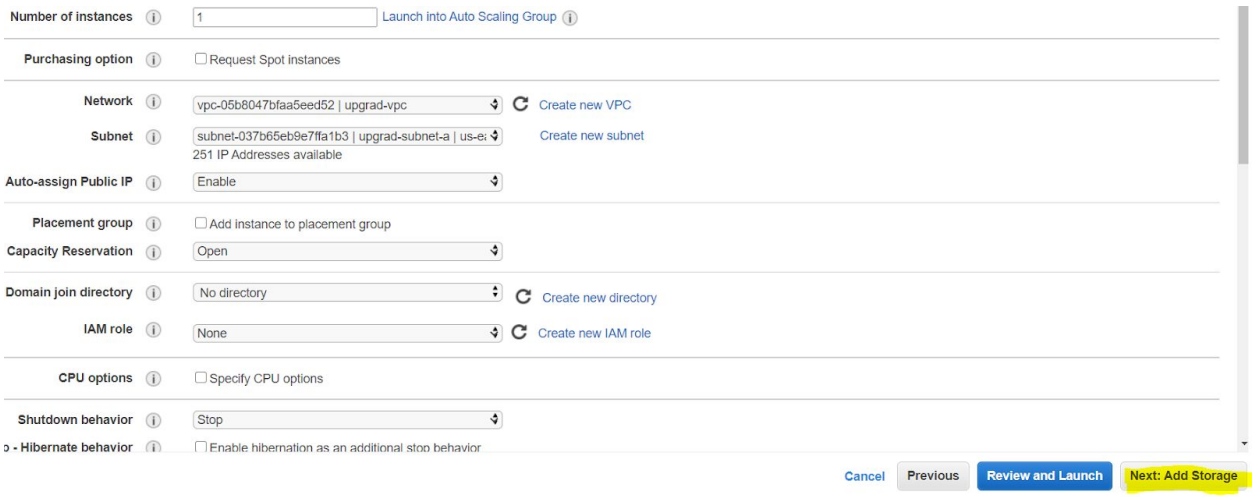
10. In the **Auto-assign Public IP** click on the dropdown and select **Enable**.



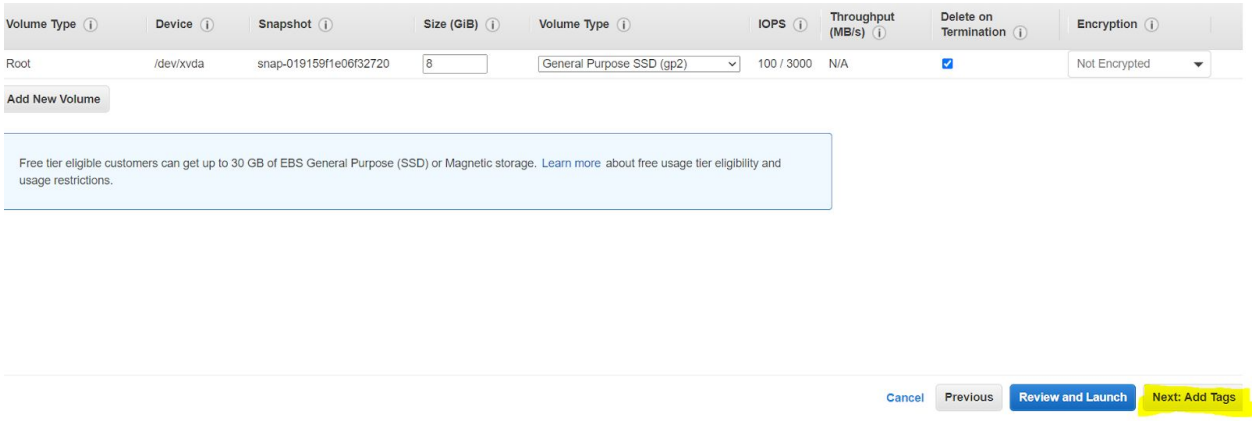

11. Till now, your page should appear as shown below.



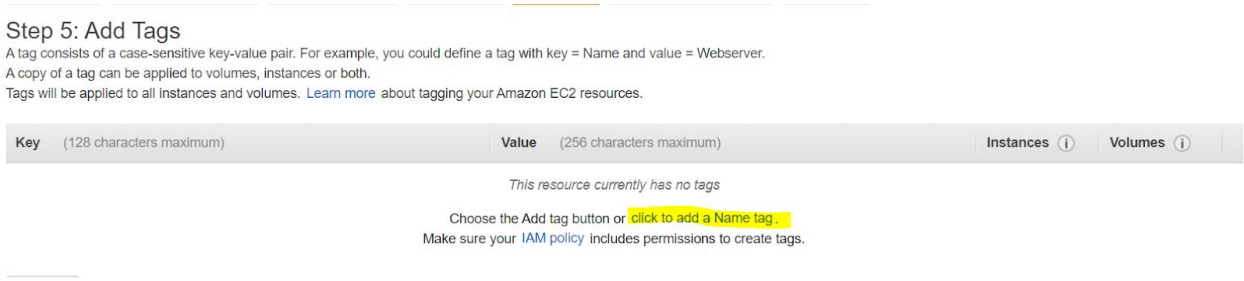

12. Leave the rest of the settings as default. Next, click on the button **Next: Add Storage**.



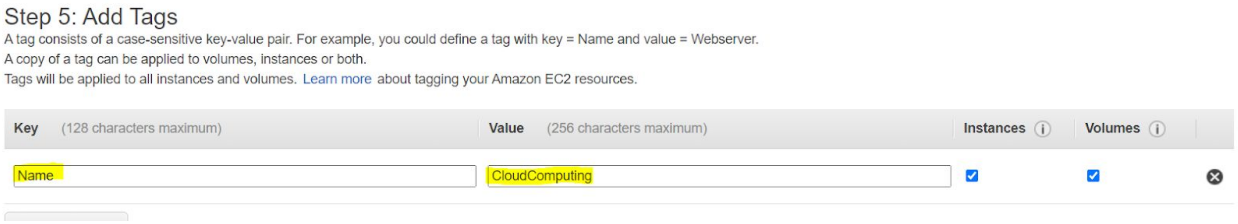

13. Leave the setting as default on this page and click on the **Next: Add Tags** button.



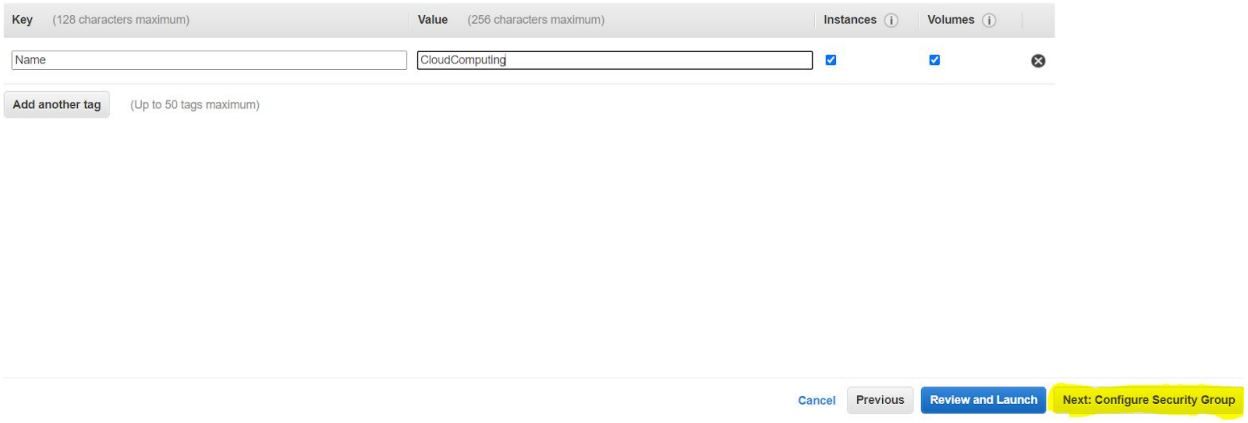

14. On this page, you can add a tag to your EC2 instance. Click on the text which reads **click to add a Name tag** as shown in the image below.



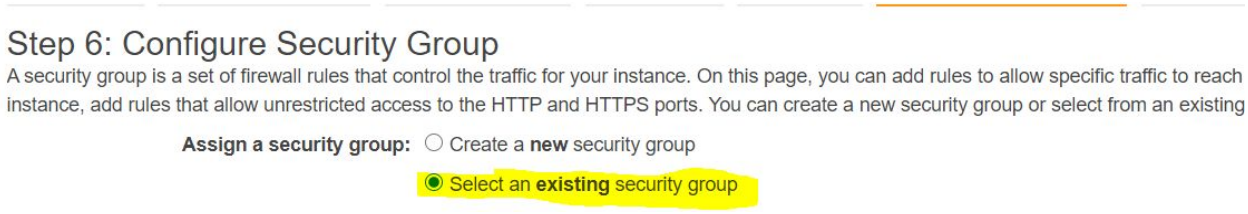

15. In the value field, you can enter any name of your choice.



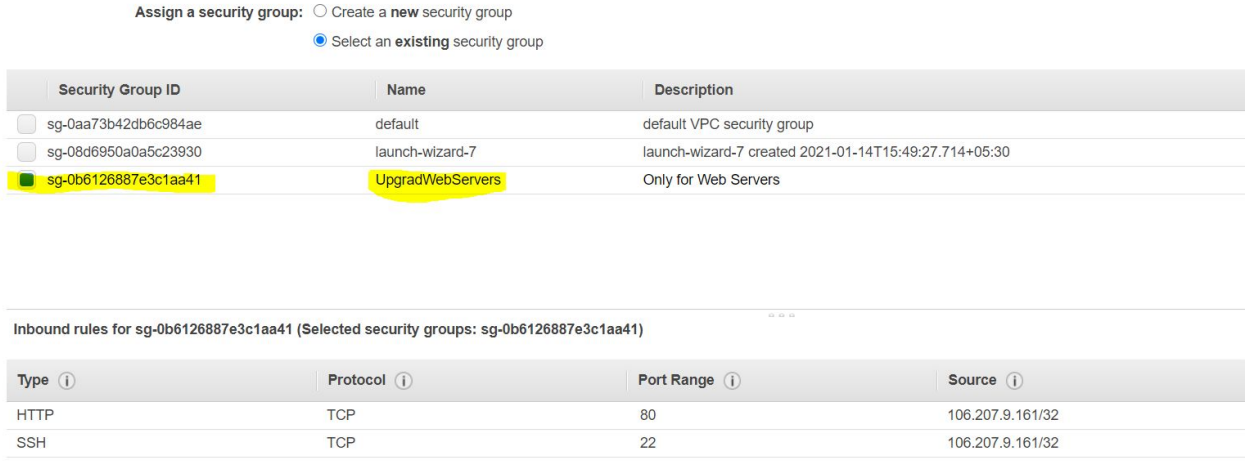

16. Now click on the button **Next: Configure Security Group** as shown below.



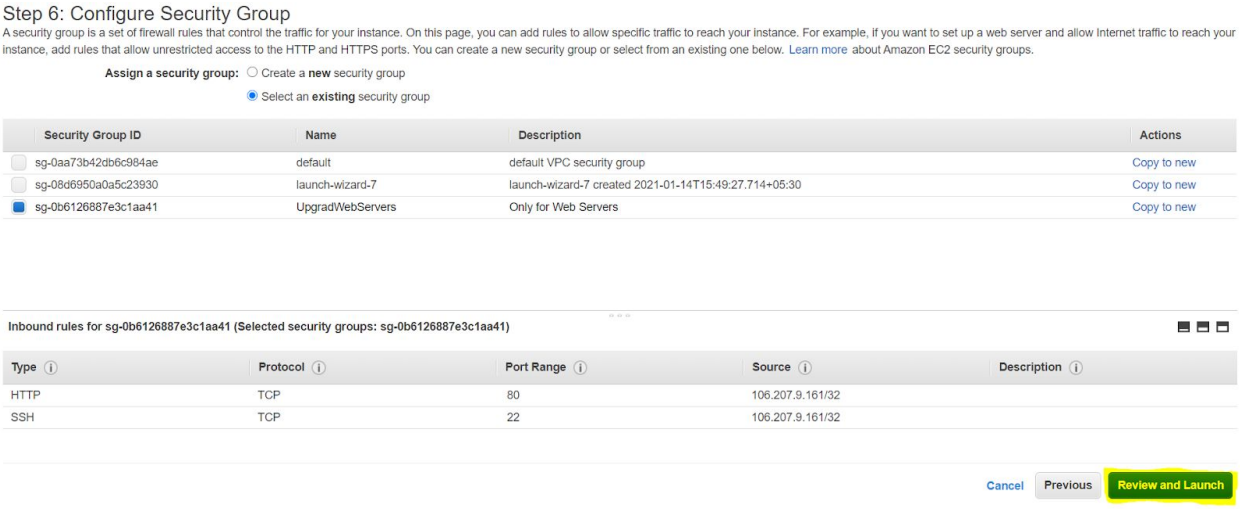

17. On this page, you need to use the security group that you have created earlier. To use an existing security group click on the radio button next to the option which reads **Select an existing security group** as shown below.



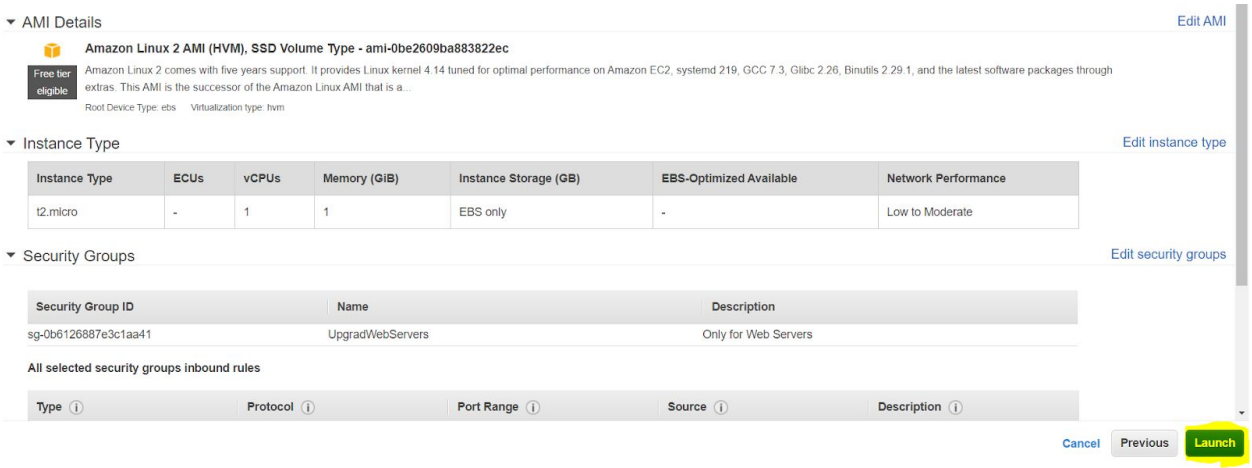

18. From the list that appears, select the security group that you had created earlier.



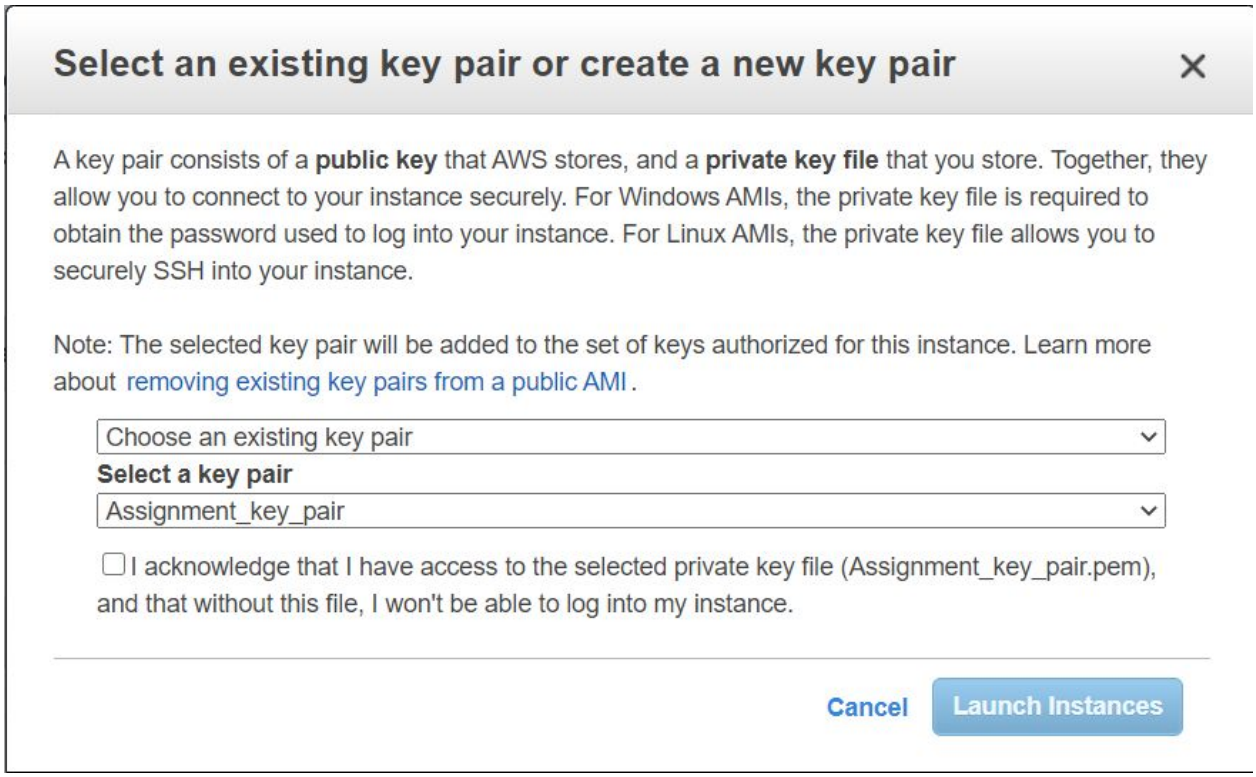

19. Next click on the **Review and Launch** button.



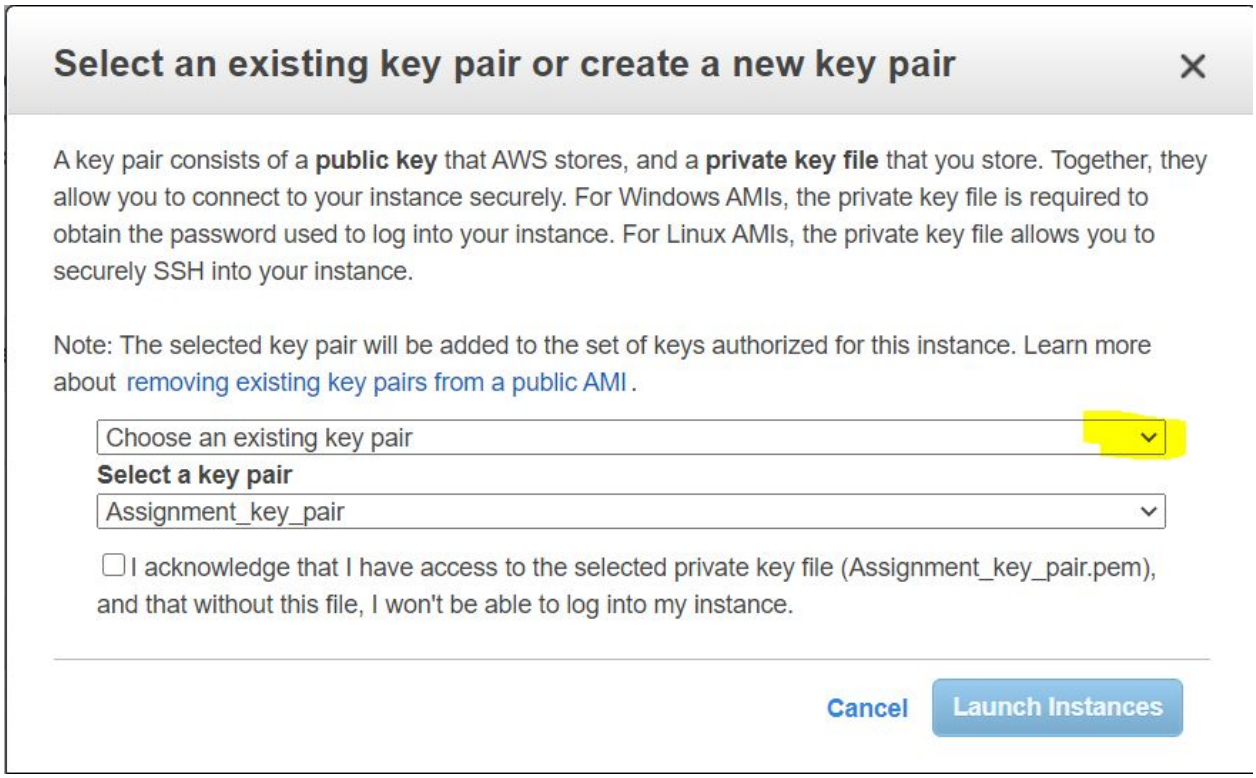

20. On this page, you can review the settings for the EC2 instance that you are about to launch. Now, to launch this instance, you need to click on the **Launch** button as shown below.

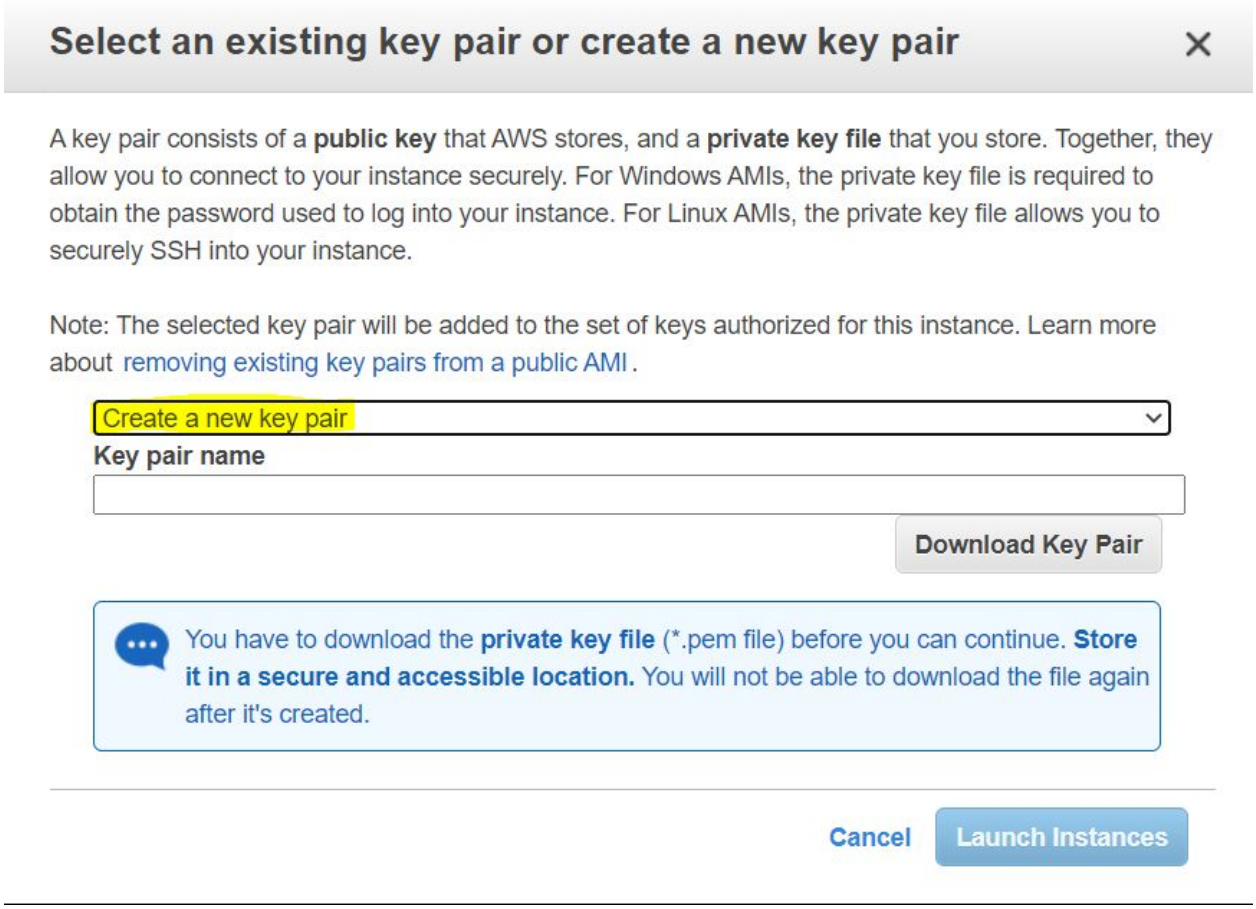



21. Once, you click on this button, it will prompt you to select a key pair for this EC2 instance.

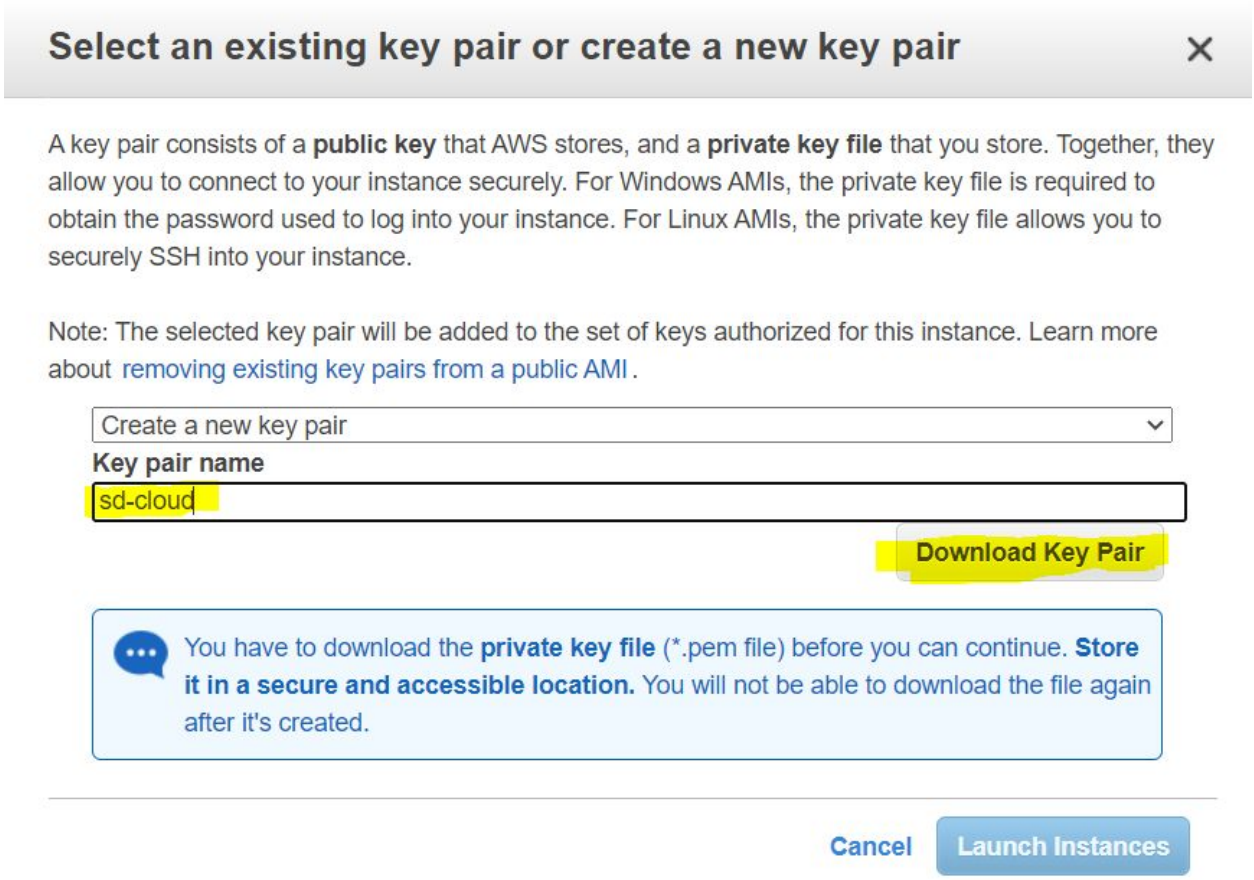



22. If this is the first time you are launching an EC2 instance, you need to generate a new key pair. Click on the dropdown and select **Create a new key pair** as shown below.






23. You also need to specify a name for the key pair. You can name it anything as per your convenience. After you have named it, click on the **Download Key Pair** button as shown below.

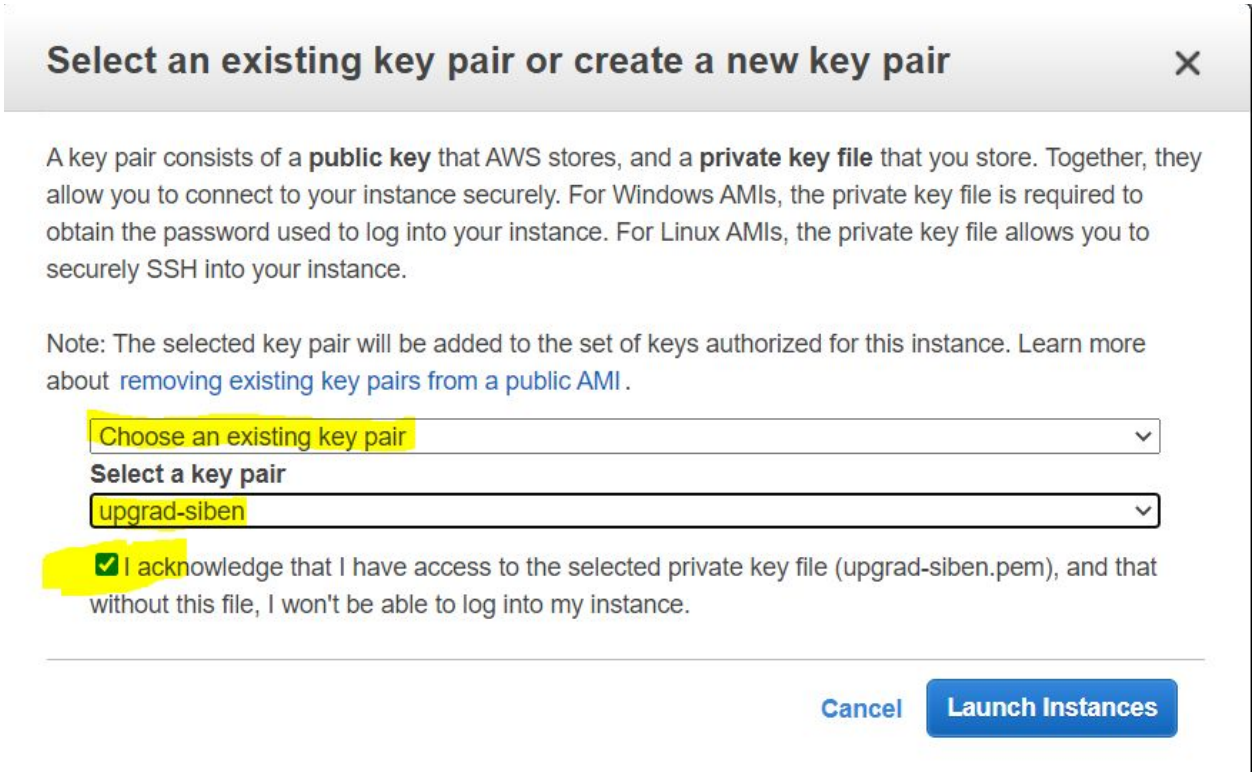



A **.pem** file will be downloaded. If you are using a Linux or Mac operating system, you will need this **.pem** file to login to your EC2 instance. If you are a Windows user, you will need to convert this file to a **.ppk** to login to your EC2 instance.

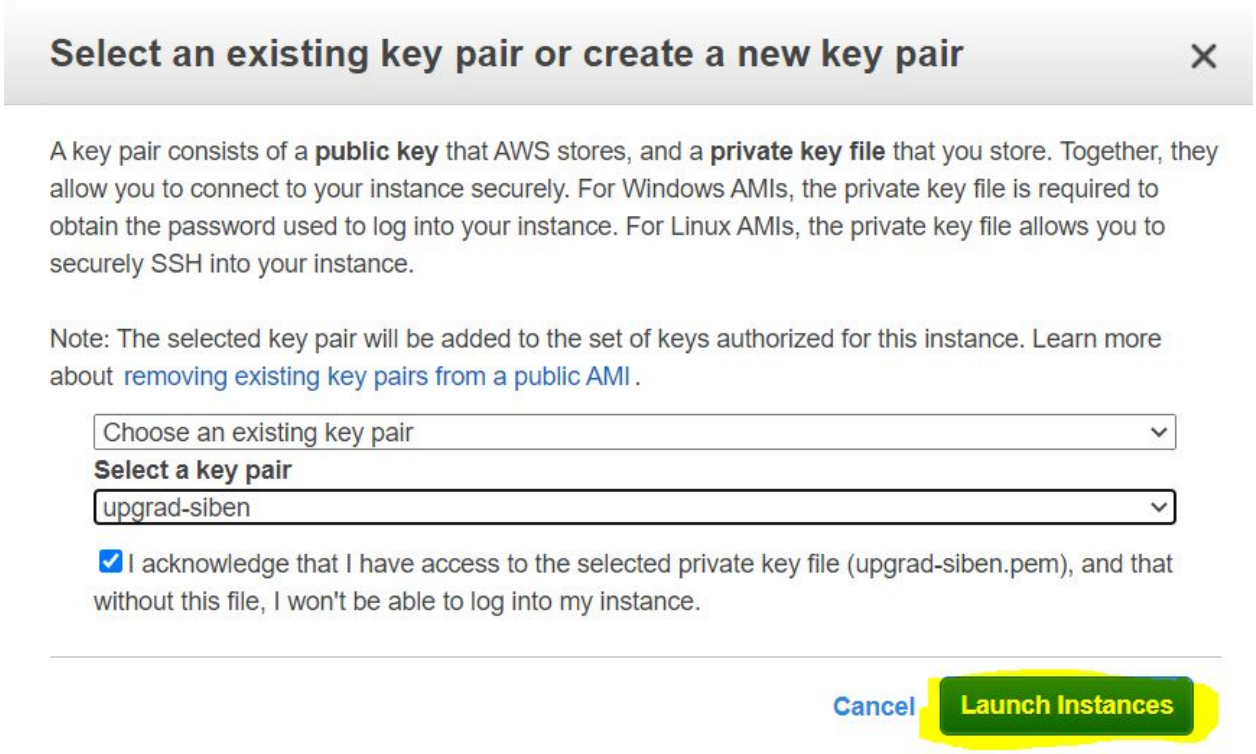
**Irrespective of the operating system, it is very important to keep this .pem file safe. Under no circumstances, you should lose this file.**

24. If you already have one key pair, you can use the same file to login to this EC2 instance. Select the option that says **Choose an existing key pair** and from the next dropdown select the existing key pair. You would also need to check the box as shown below.

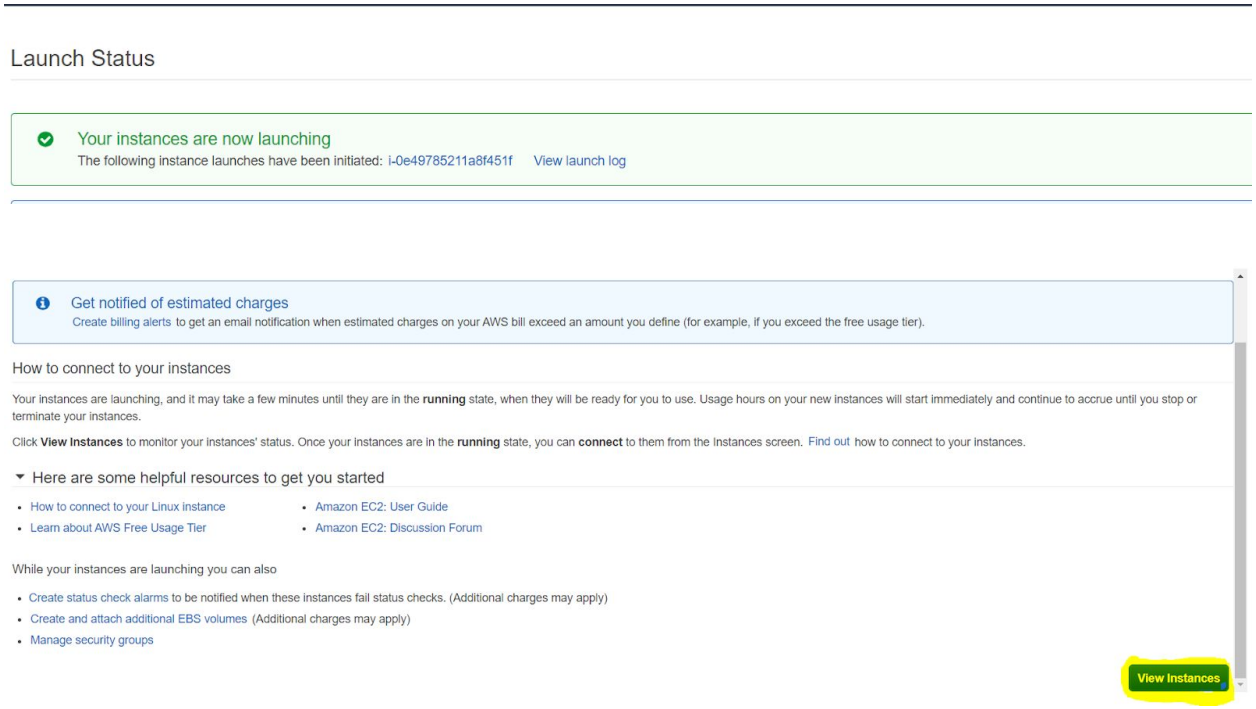
Follow this step if and only if you have downloaded a key pair for this AWS account.



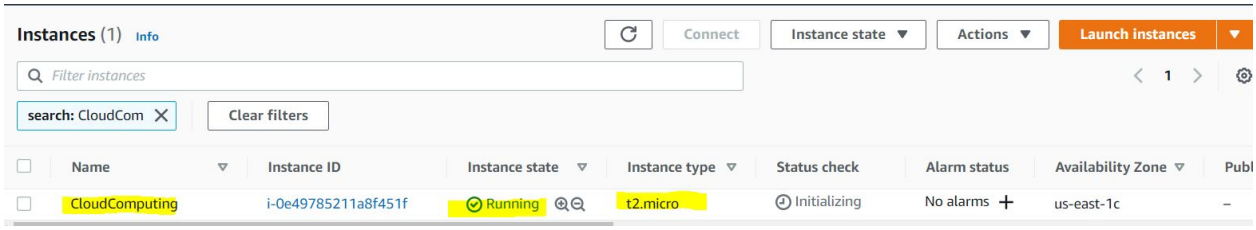

25. Once you have either downloaded the key pair or selected the option to use an existing pair, then you can launch the EC2 instance. To launch the EC2 instance, click on the **Launch Instances** button as shown below.




26. A new page will appear which says **Your instances are now launching**. Scroll down to the bottom and click on the **View Instances** button as shown below.



27. On this page, you can see the instance that you have just launched.




You can see that the name is CloudComputing and the instance type is **t2.micro**.

With this, you have successfully launched a new EC2 instance within a VPC that you had created earlier.