Launching an EC2 Instance in a VPC

This document will provide you with a step-by-step guide on how to launch an EC2 instance.

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 dashboard. On this page, you need to click on the dropdown next to the **Launch instance** button and click on **Launch instance** as shown below.

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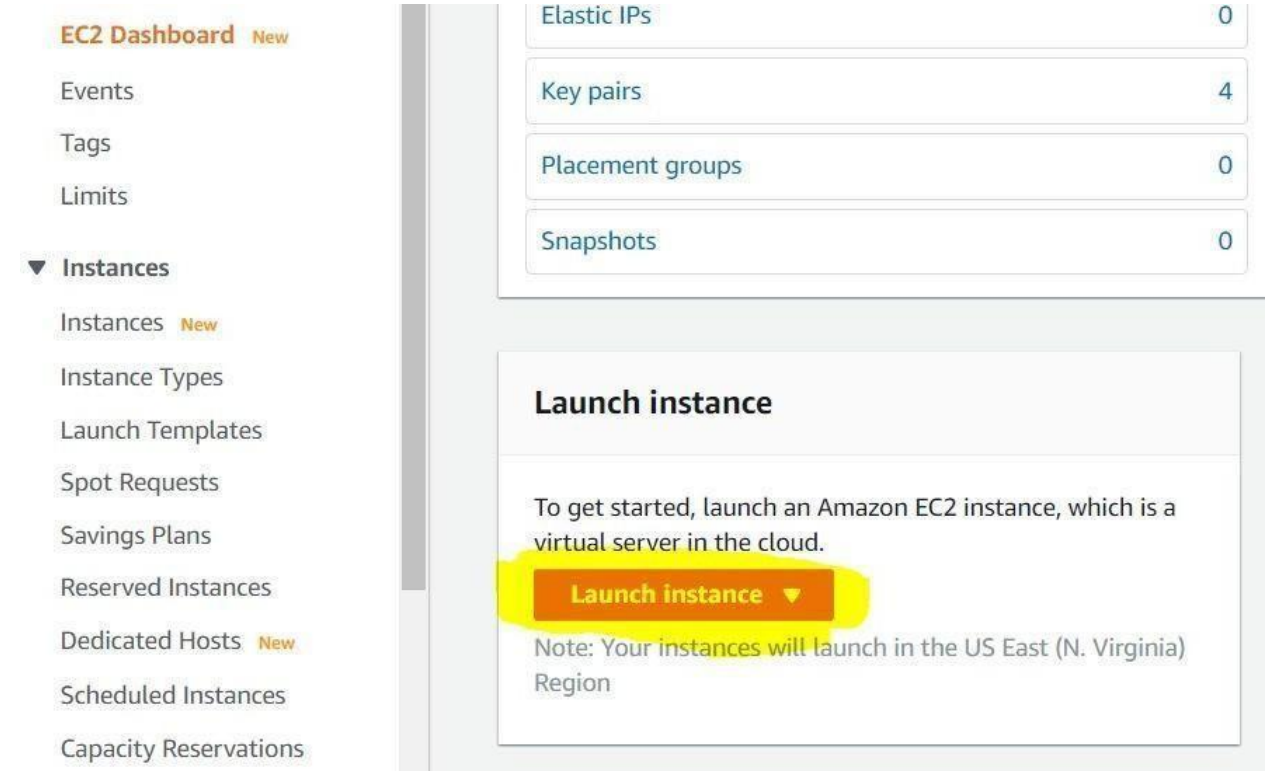

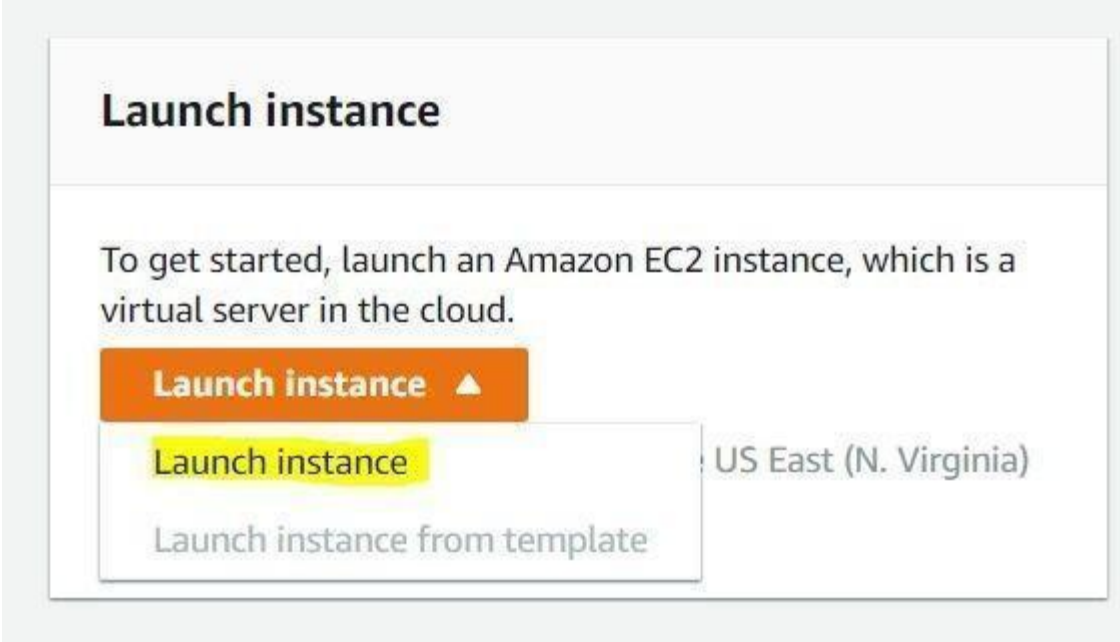

3. Now, you will be redirected to a new page. On this page, you will need to select the **Amazon Machine Image** (AMI) for your EC2 instance. For the purpose of this demonstration, you need to select the machine image that is eligible for the

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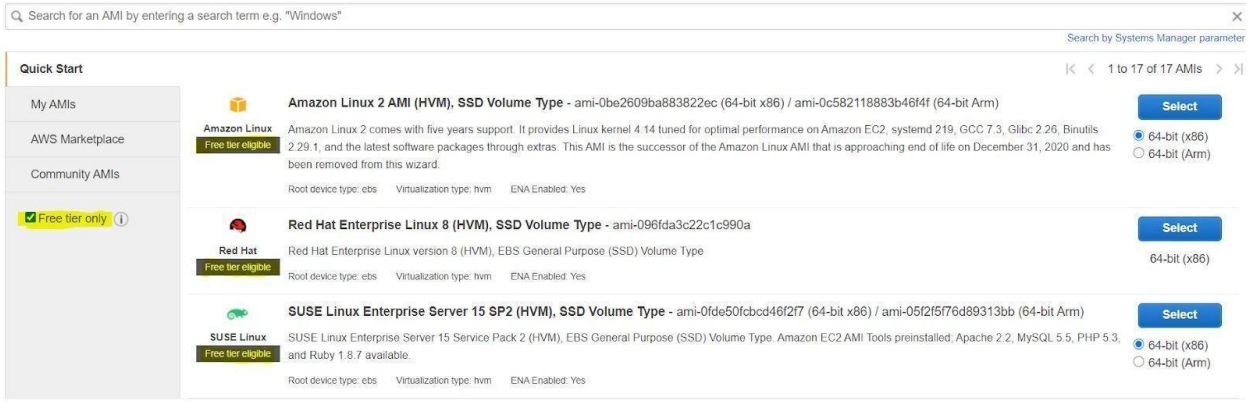
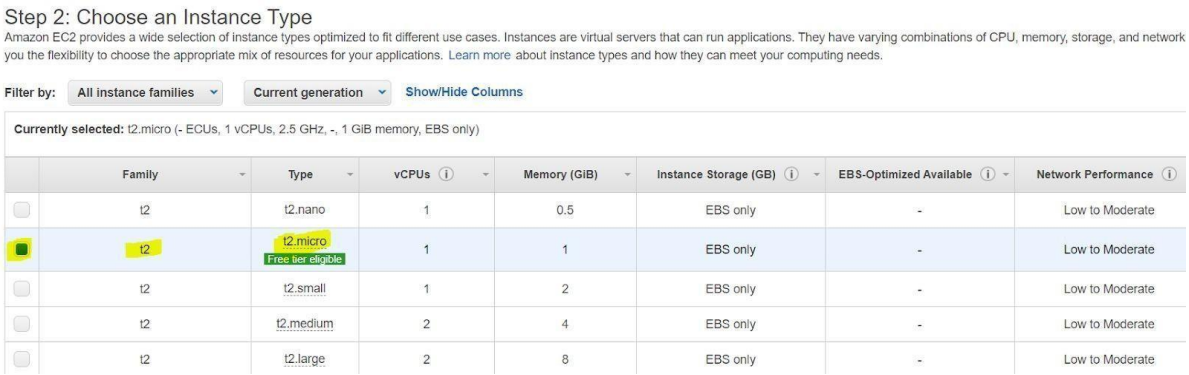
free tier. For this select the check-box next to the Free tier only as shown below. This will show you all the machines images that are eligible for the free tier.



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.



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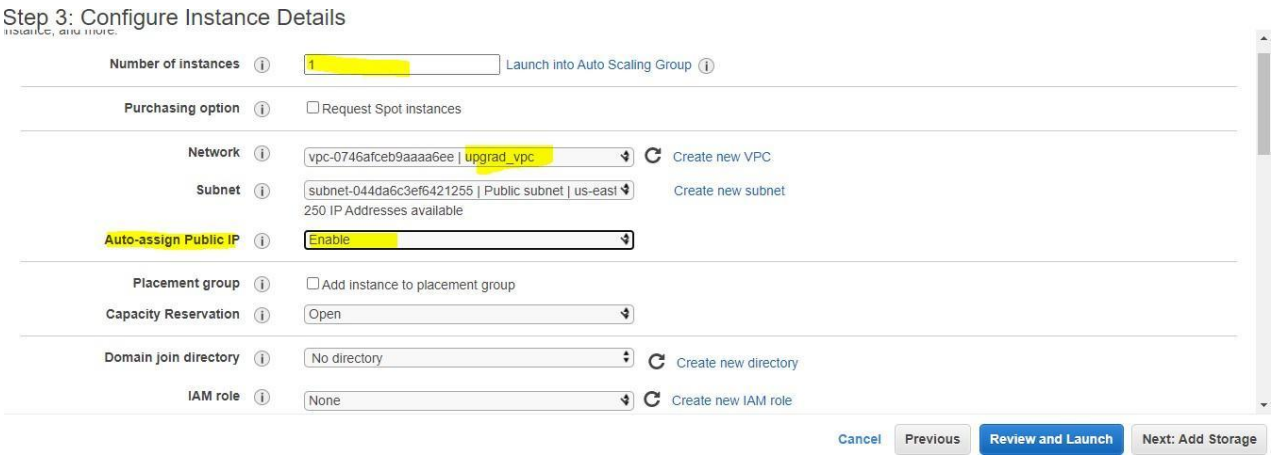
6. Next, click on the button which says **Next: Configure Instance Details** in the bottom right corner of the screen as shown below.

7. Now, you will be redirected to a new page. On this page, you will be selecting the **VPC** and the **subnet** for the EC2 instance.

8. For the field **Network** and **Subnet** leave the settings as default. This will launch your EC2 instance in the default VPC that comes with your AWS account. Also, make sure that the number of instances is 1.

   In the **Network**, click on the dropdown and select **upgrad_vpc**

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



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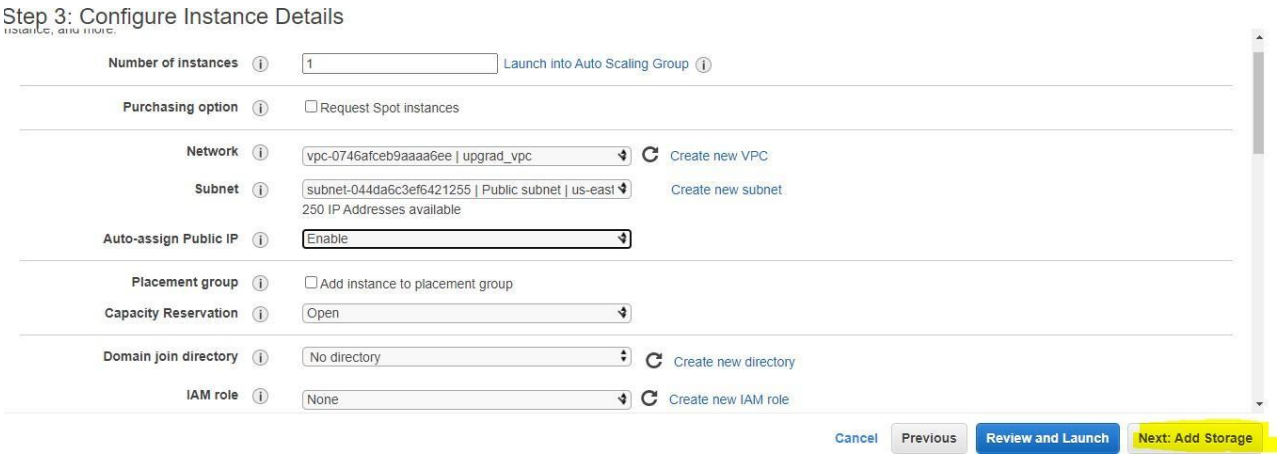
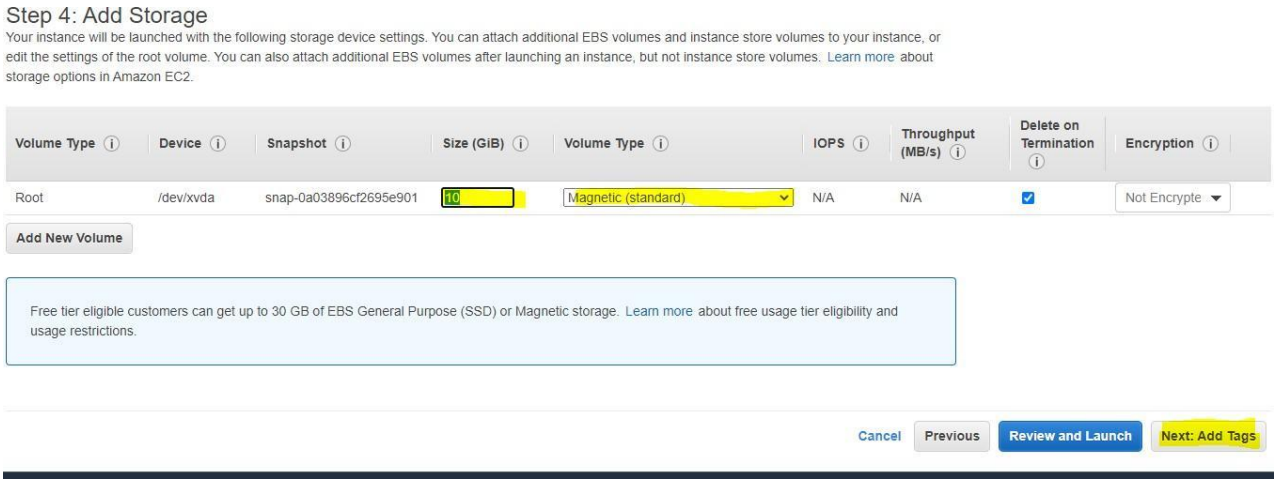
9. Leave the rest of the settings as default. Next, click on the button **Next: Add Storage**.



10. Select a **size** as **10**, from the **Volume Type** dropdown select **Magnetic(standard),** and click on the **Next: Add Tags** button.



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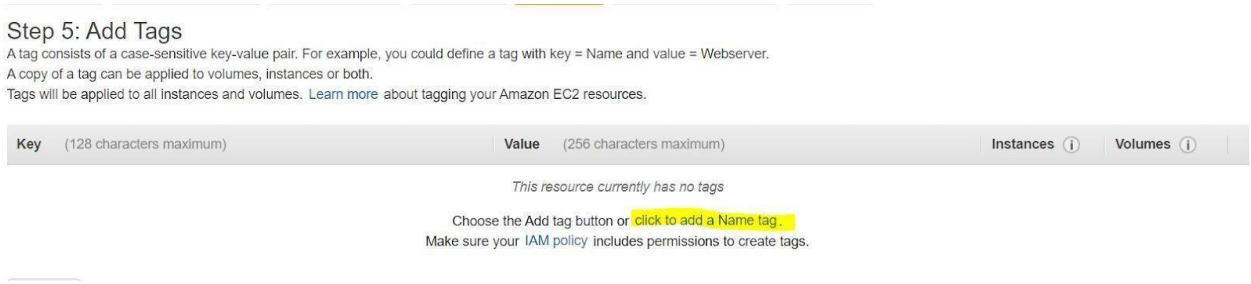
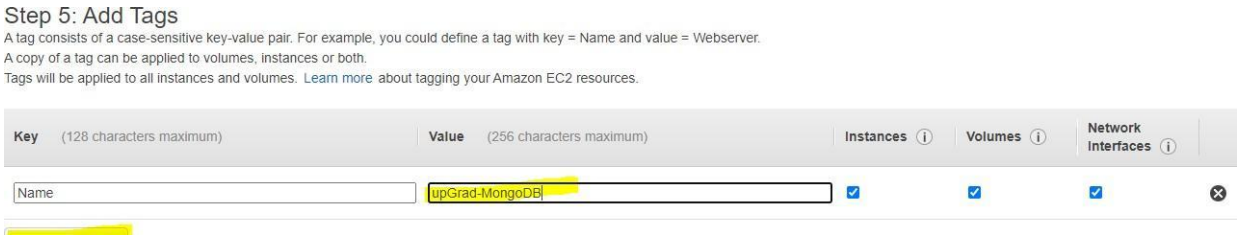
11. On this page, you can add a name tag to your EC2 instance. Click on the text which reads **click to add a Name tag** as shown in the image below.



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



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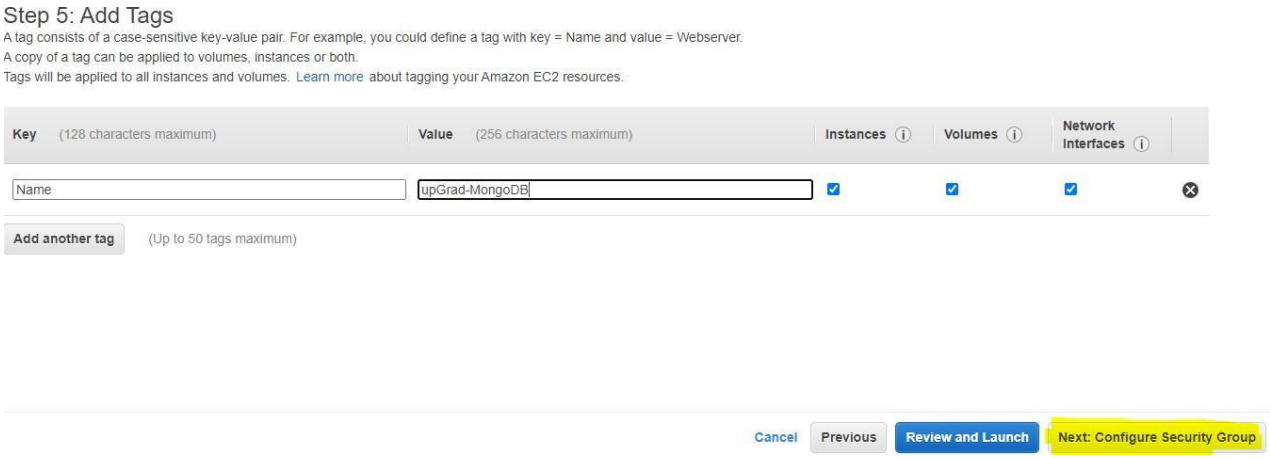
13. Now click on the button **Next: Configure Security Group** as shown below.



14. On this page, you need to specify the security group for the instance that you are creating. Click on **Select an existing Security group.**

Choose the security group you created - **mongo-db-security-group**

15. One rule is the All TCP has already been added to the security group.
Under the **Source** field, click on the dropdown and select **My IP** as shown below.

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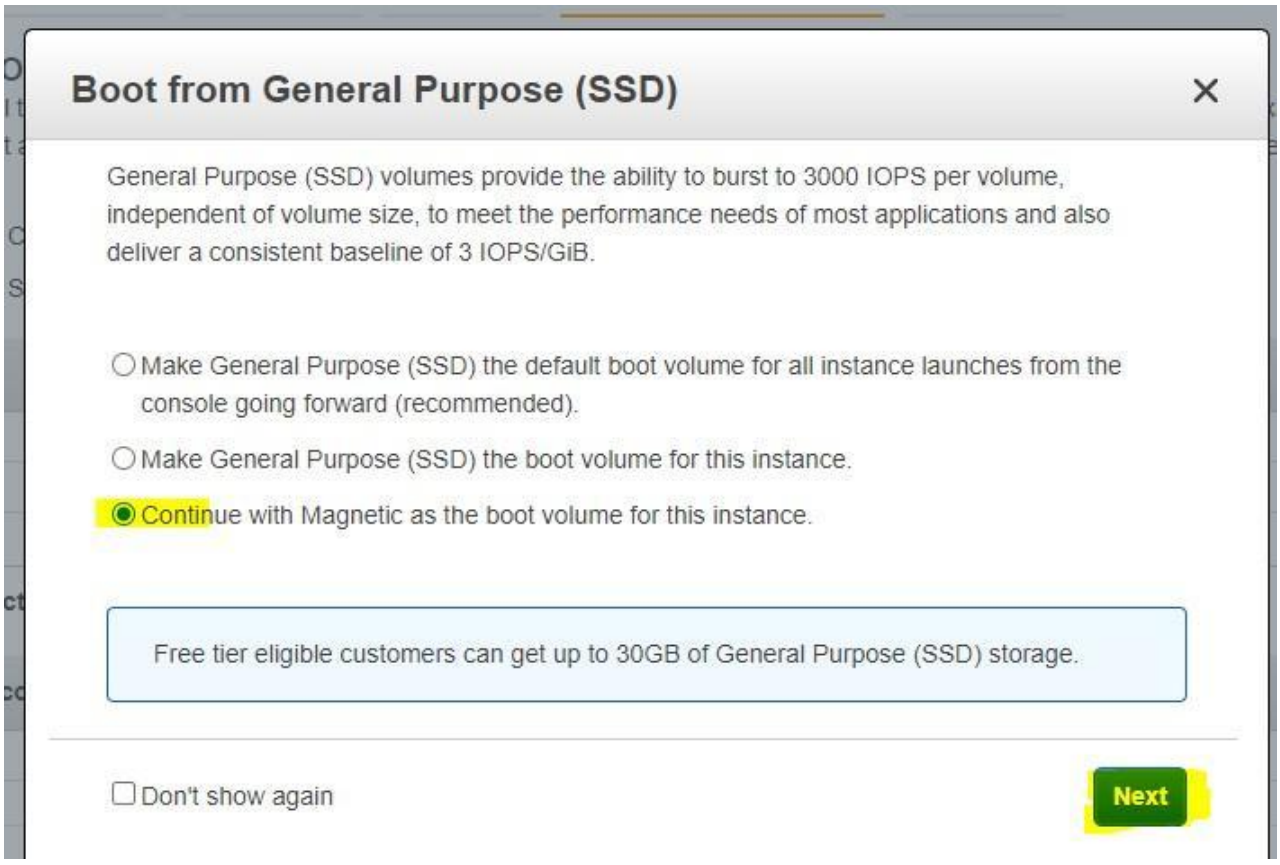
16. Next click on the **Review and Launch** button.

17. A 'Boot from GeneralPurpose' box will appear, choose the third option and click on **Next**.



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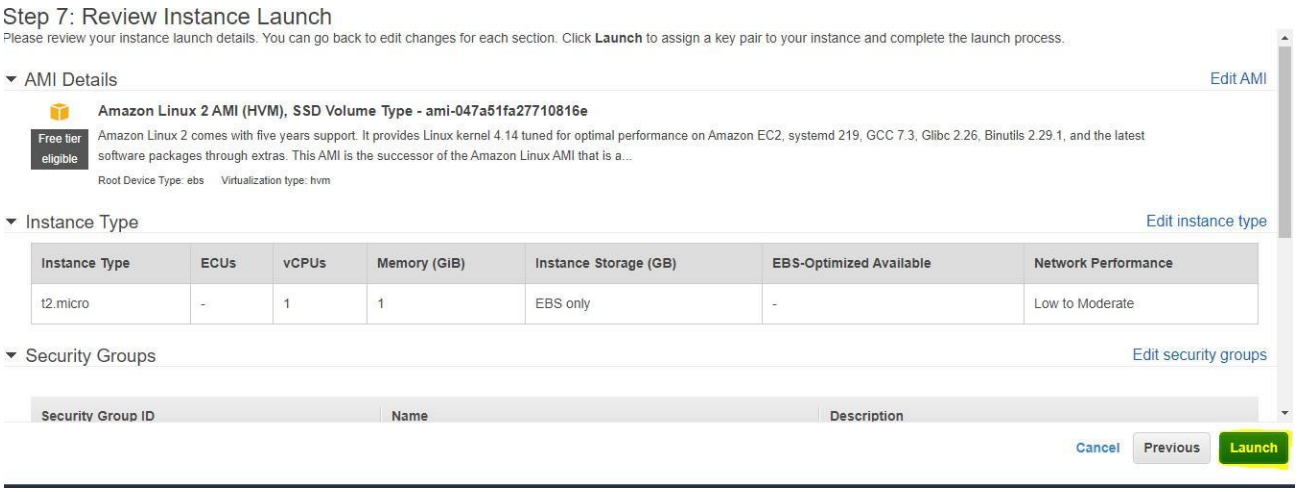
18. On this page, you can review the settings for the EC2 instance that you are about to launch. Now, to launch this instance, you need to click on the **Launch** button as shown below.



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

    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.

    You also need to specify a name for the key pair. You can name it anything as per your convenience.

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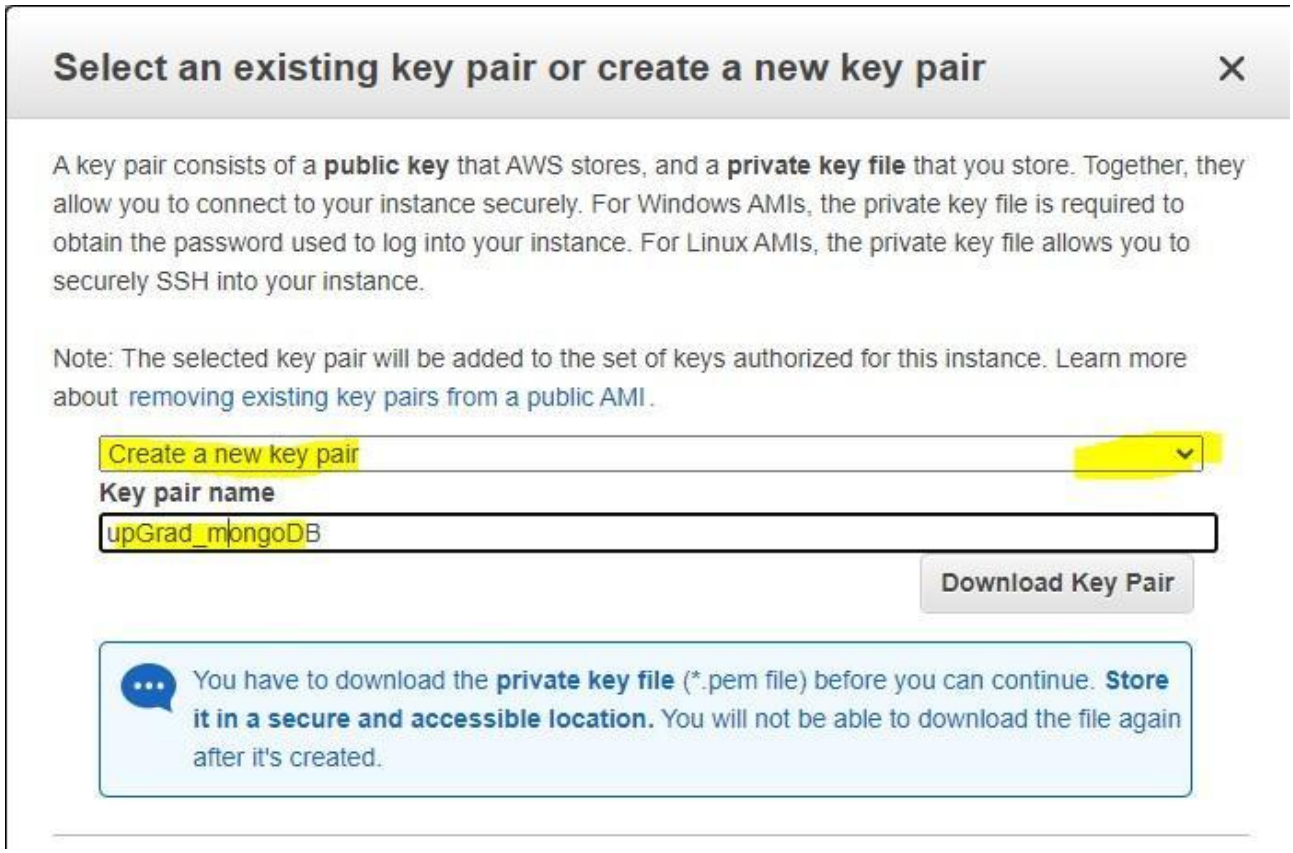

20. After you have named it, click on the **Download Key Pair** button as shown below

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

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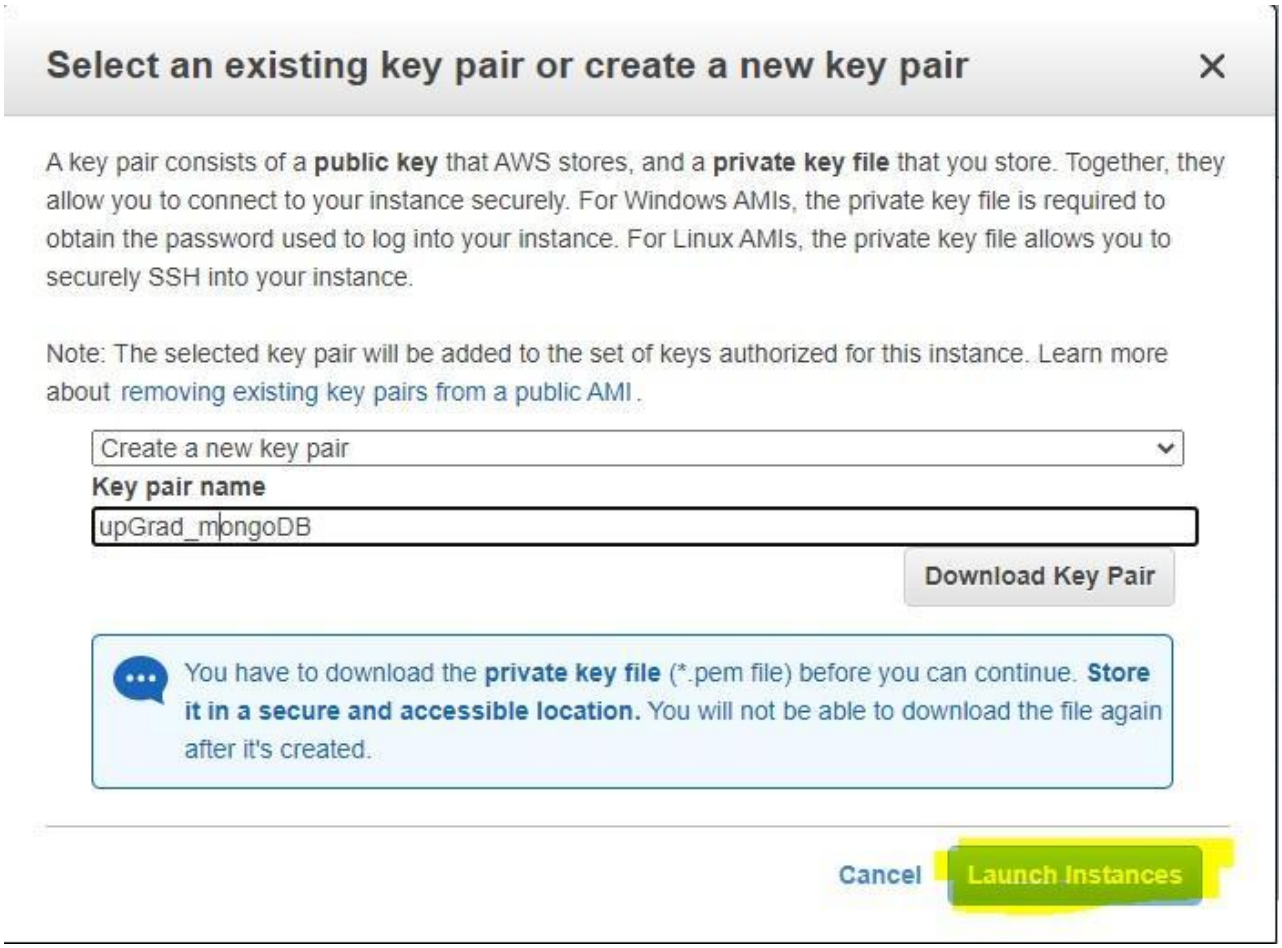
21. Once you have downloaded the key pair, then you can launch the EC2 instance. To launch the EC2 instance, click on the **Launch Instances** button as shown below.



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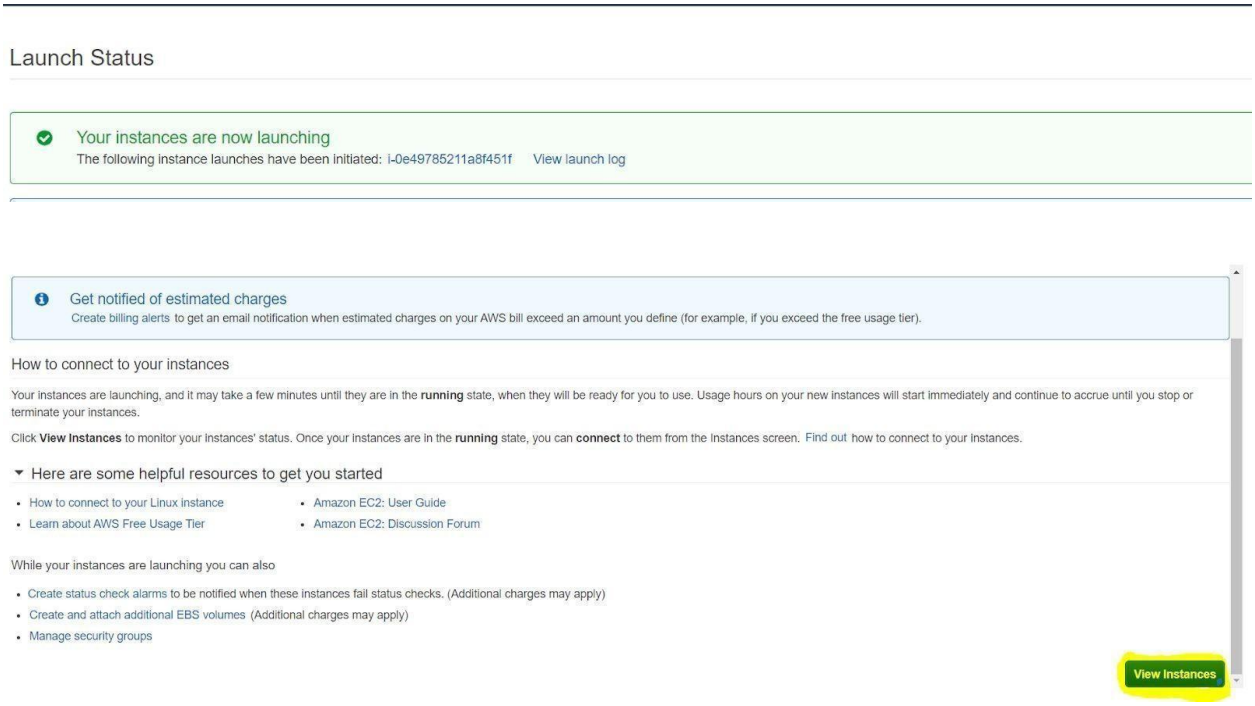
22. A new page will appear which says **Your instances are now launching**. Scroll down to the bottom and click on the **View Instances** button as shown below.



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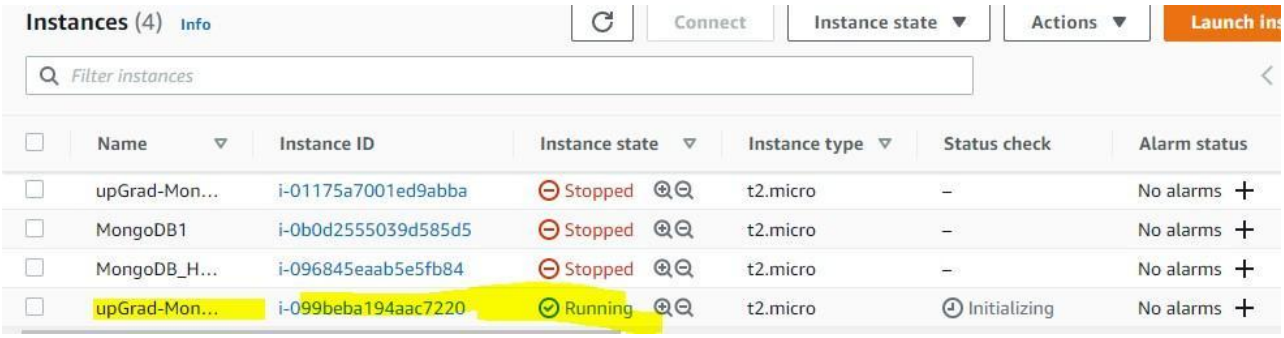
23. On this page, you can see the instance that you have just launched.



You can see that the name is upGrad-mongoDB 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.

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