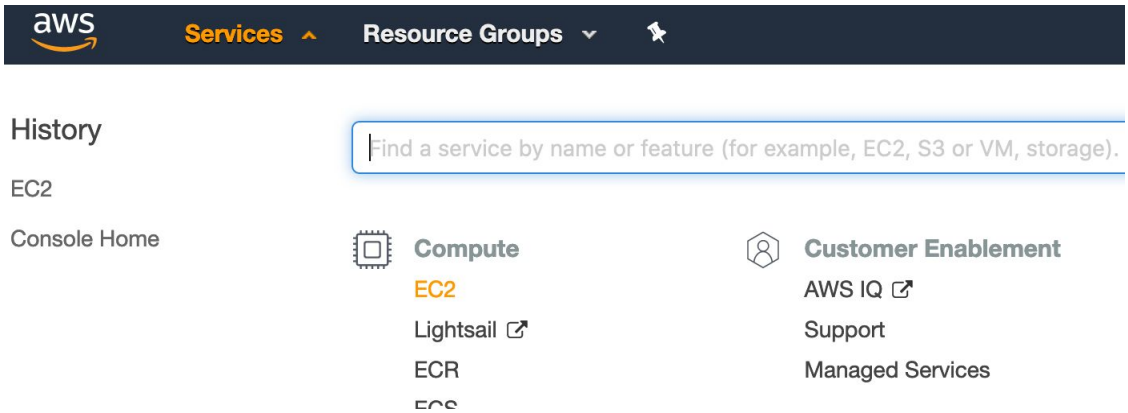
Sign up for AWS and Launch an EC2 Instance

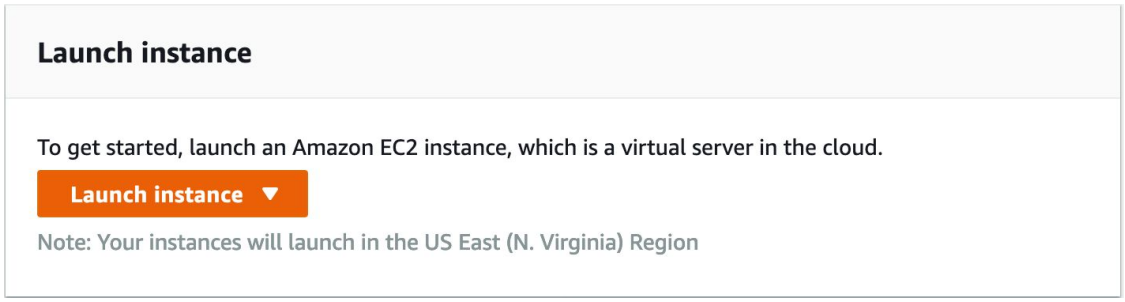
1. If you already have your own personal Amazon Web Services (AWS) account sign in and skip to step 3; otherwise, sign up for a free personal account here.

2. Provide your email, choose a password and an account name. Choose a personal account type and provide the additional information requested. You must associate a credit card with the new account in order to sign up; however, you will **not** be required to pay anything as long as you only use **Free tier eligible** services and stay within their usage limits. The **Free tier eligible** services will be all that are required for the cases in this program. For more information about the **Free tier eligible** products, services, and their usage limits click here.

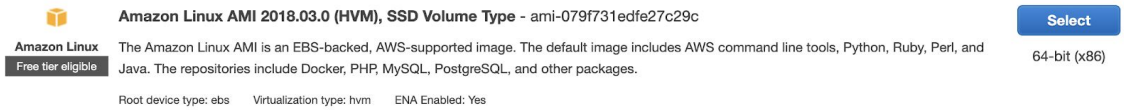
3. Navigate to the EC2 Management Console by clicking Services > Compute > EC2.



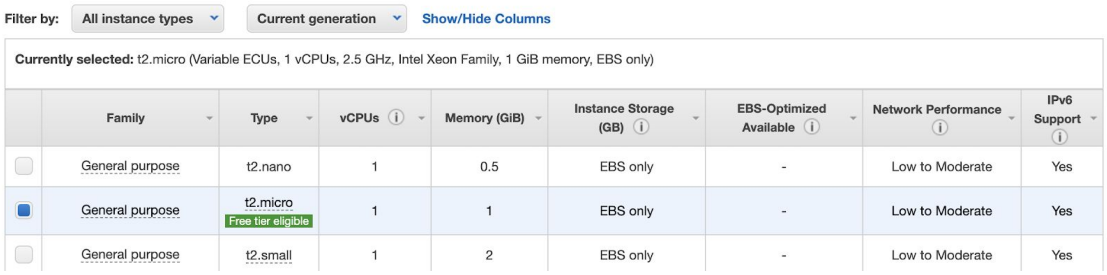
4. Scroll down and click the “Launch Instance” button.



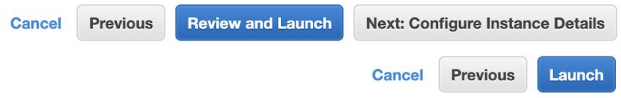
5. You are now shown a wizard that will walk you through the major categories of options required to configure your instance. To begin, we must choose an Amazon Machine Image (AMI). This is essentially a template that describes the operating system, application server, and any additional software packages we want pre-installed on our virtual server. There are many AMI's, some created and supported by Amazon, others by community users, and many that have been optimized for specific purposes so we urge you to read the descriptions of each. For the sake of this week's cases, we will choose **Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type**



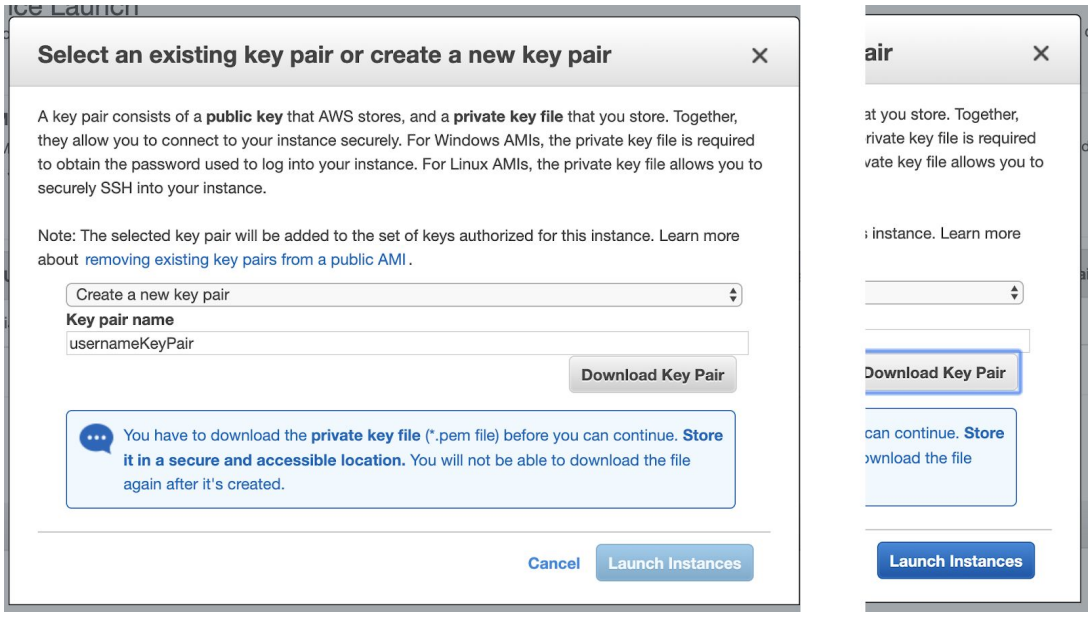
6. Next, we are asked to specify the instance type. There is a wide selection of types which vary in CPU size, memory, storage, and networking capacity and are broadly organized into four families: Storage optimized, Memory optimized, Compute optimized, or General purpose. For now we're going to choose the t2.micro General purpose instance type which is **Free tier eligible**.



7. For further configuration options, you can explore Steps 3-7 but for now let's accept the default configuration and click the "Review and Launch" button followed by "Launch". Keep in mind that launching any services or using certain configuration options not explicitly labelled as **Free tier eligible** will result in charges on your account.



8. Select "Create a new key pair", name it, download it, and then Launch the instance.



After launching is completed, scroll down and click “View Instance” to view information about your instance including its public DNS.

9. Now lets connect to your freshly launched EC2 instance using SSH and the keypair you just downloaded.

   For Windows users: you will need to follow these steps to first download and install PuTTY, before connecting to your EC2 instance. PuTTY is a Windows tool used that acts as an ssh terminal to give you access to remote machines.

   For everyone else: you will need to set the permission of the .pem file you downloaded to be 400 in order for SSH to work by using the command below:

   ```
   chmod 400 <path to .pem file>
   ```

   You will then use this key pair to connect to your EC2 instance by following the steps outlined here. The command to connect to your ec2 instance will take the format:

   ```
   ssh -i <path to .pem file> ec2-user@<public dns of your ec2 instance>
   ```

10. Once you’ve created your own AWS account and successfully launched and connected to an EC2 instance using SSH, you are ready for the next cases. To avoid running your EC2 instance while its not being used and to ensure you do not incur any charges by exceeding usage limits, please follow these steps to terminate the instance. If you have any questions please reach out to your TA or drop a message in the #tech-support channel on slack and a member of our team will be in touch as soon as possible.

Sign up for Open Weather Map API

1. Visit https://home.openweathermap.org/users/sign_up and enter your information to sign up.
2. Once you register on the site and verify your email address, you can login to the site click on the API tab.
3. You'll see the API Key there. You may generate additional keys if needed.