Learn how to host a webpage on an AWS EC2 instance.

1) Launch instance wizard
2) Amazon Linux 2 AMI (HVM), SSD Volume Type (64-bit (x86)
3) Select t2.micro (free tier eligible) 1GiB -> Review and Launch
    a) You can edit the Security Group to change who can access the IP address
4) Launch
5) Create a new key pair. Name it. Download Key pair.
6) Launch instance

How to SSH into this AWS instance

1) Install windows subsystem for Linux (here)
2) Download Ubuntu 20.04 LTS
3) Create user login and password
4) Navigate to AWS instances. Select the instance you are setting up.
5) Select Connect at the top right. (Shows how to connect to instance with SSH)
6) Navigate the .pem key pair from aws.
7) Go into Ubuntu distro
8) mv /mnt/d/testing_usedr/Downloads/test.pem .
    a) After mv /mnt/- insert location of pair key (.pem)
9) cd ~
10) Type in chmod 400 test.pem
11) nano .bashrc -> SCROLL ALL THE WAY DOWN
12) alias aws='ssh -i "test.pem" ec2-user@ec2-*-***-***-**.us-east-2.compute.amazonaws.com'
    a) Replace with your public DNS from option 4.
13) control +o to save -> press enter to save file name -> control + x to exit
14) Type aws in ubuntu distro

How to install APACHE2 and run a webpage

1) Zip up webpage files (index.html css js)
2) Download WinSCPPortable on windows computer
3) Launch ubuntu distro
4) aws
5) sudo su (change directory to root)

6) yum update -y (install updates if there is any)
7) yum install httpd -y
8) cd /var/www/html
9) ls (nothing in there. We need to copy zip folder into ec2 instance)
10) Launch WinSCP
11) Login -> advanced -> SSH -> Authentication -> Private Key file -> select test.pem from your location (will turn test.pem into test.ppk)
12) Host name -> Public DNS from instance in AWS ..... Port 22
    a) ec2-*-***-***-**.us-east-2.compute.amazonaws.com
13) username-> ec2-user
14) Log in
15) Drag zip files into /home/ec2-user/ (you can only drop here to avoid permission errors)
16) Launch ubuntu distro
17) cd ~
18) ls -la (you can see zip file in there)
19) sudo mv Web\ Development\ 1.zip /var/www/html/
20) cd /var/www/html/
21) sudo unzip Web\ Development\ 1.zip
22) sudo rm -r /var/www/html/* removes everything in the designated folder
23) service httpd start
    a) sudo systemctl start httpd
    b) sudo systemctl stop httpd
    c) sudo systemctl restart httpd
    d) sudo systemctl status httpd

Learn how to direct an ec2 instance to an registered Domain -> Source

1) Get the IP address for the Amazon EC2 instance:
    a) Sign in to the AWS Management Console and open the Amazon EC2 console at https://console.aws.amazon.com/ec2/.
    b) In the Regions list in the upper right corner of the console, choose the Region that you launched the instance in.
    c) In the navigation pane, choose **Instances**.
    d) In the table, choose the instance that you want to route traffic to.
    e) In the bottom pane, on the **Description** tab, get the value of **Elastic IPs**.
    If you didn't associate an Elastic IP with the instance, get the value of **IPv4 Public IP**.

2) Open the Route 53 console at https://console.aws.amazon.com/route53/.
3) In the navigation pane, choose **Hosted zones**.
4) Choose the name of the hosted zone that matches the name of the domain that you want to route traffic for.
5) Choose **Create record**.
6) Specify the following values:
    a) Routing policy - Choose the applicable routing policy. For more information, see Choosing a routing policy.
    b) Record name - Enter the domain name that you want to use to route traffic to your EC2 instance. The default value is the name of the hosted zone.

       For example, if the name of the hosted zone is example.com and you want to use acme.example.com to route traffic to your EC2 instance, enter acme.

    c) Value/Route traffic to - Choose IP address or another value depending on the record type. Enter the IP address that you got in step 1.
    d) Record type - Choose A – IPv4 address.
    e) TTL (seconds) - Accept the default value of 300.
7) Choose Create records.
    a) Changes generally propagate to all Route 53 servers within 60 seconds. When propagation is done, you'll be able to route traffic to your EC2 instance by using the name of the record that you created in this procedure