EC2 Metadata and User Data

This is similar to the steps in the security groups and bootstrap when launching an instance and going into the user data.

1. When clicking on the "launch instance" you would do the normal and go down to the user data in the advanced details portion.
2. Paste or type what you have in there
3. Storage can stay as default
4. Since we recently created a security group in the bootstrap portion. We will use that as our security group
   a. As well as the key pair

*So after attempting to go into the public IP address to take me into the webpage I had trouble with it. I did go into the command line and see if all the steps I was doing was correct and everything seemed to align correctly.

Down below shows you how to do this in the EC2 Instance Connect

1. Once the instance is running, click on it and click connect
2. From there you can go ahead and click connect from the EC2 Instance Connect
3. First command you would type in would be
   a. Ssh [user]@[public IP] -i [pem file name].pem
   b. Example
      i. Ssh ec2-user@3.92.212.240 -I cambss.pem
4. Once you enter that, input yes
5. Once that has been established you want to go into root privileges
   a. Sudo su
6. Once you're in the root go into your html
   a. Cd /var/www/html
7. Once here typing in ls command lets you see what is in the file
8. Then typing in cat index.html shows what is in there.
   a. Typing in the cat command allows us to create single or multiple files, view content of a file, concatenate files and redirect output in terminal or files.

```
[root@ip-172-31-93-86 ec2-user]# cd /var/www/html
[root@ip-172-31-93-86 html]# ls
index.html
[root@ip-172-31-93-86 html]# cat index.html
<html><body><h1>My IP is
54.87.130.43</h1></body></html>
[root@ip-172-31-93-86 html]# []
```

9. Remember the curl command is to retrieve your metadata
   a. curl http://169.254.169.254/latest/meta-data

  b. 169.254.169.254 is the local IP to query the instance metadata

```
[root@ip-172-31-93-86 html]# curl http://169.254.169.254/latest/meta-data
ami-id
ami-launch-index
ami-manifest-path
block-device-mapping/
events/
hostname
identity-credentials/
instance-action
instance-id
instance-life-cycle
instance-type
local-hostname
local-ipv4
mac
managed-ssh-keys/
metrics/
network/
placement/
profile
public-hostname
public-ipv4
public-keys/
reservation-id
security-groups
services/[root@ip-172-31-93-86 html]#
```

10. pressing the up arrow and adding at the end of that /public-ipv4
  a. This will show you the public IP address listed
11. You can even back it all the way up to /latest
  a. So it should look like this curl http://169.254.169.254/latest/user-data
  b. This will show the bootstrap script that was run when this instance was provisioned