### **Objective** **1**: Set up the primary version of the web application in N.Virginia.

### Tasks:

### Acquire an Elastic IP (EIP).

### Attach the EIP to an EC2 instance in N.Virginia.

### Make sure to verify the EC2 instance in N.Virginia has a reliable public address.

### **Objective** **2**: Establish a backup in Oregon to ensure high availability. –

### Tasks:

### Create a backup (AMI) of this EC2 instance in a different region (Oregon).

### **Objective** **3**: Set up an Amazon Elastic File System (EFS) for shared data storage. –

### Tasks:

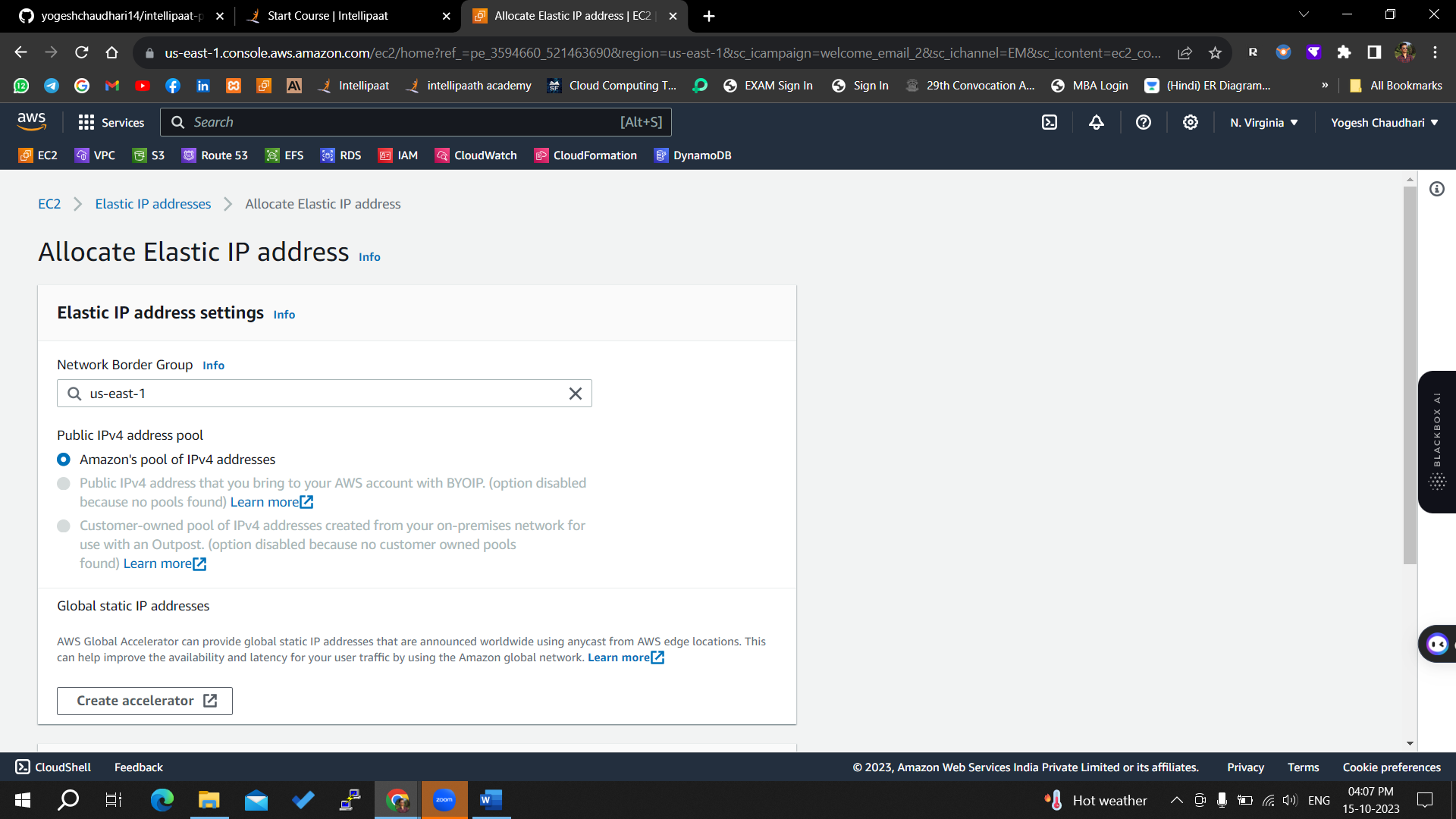
### Create an Amazon EFS in N. Virginia.

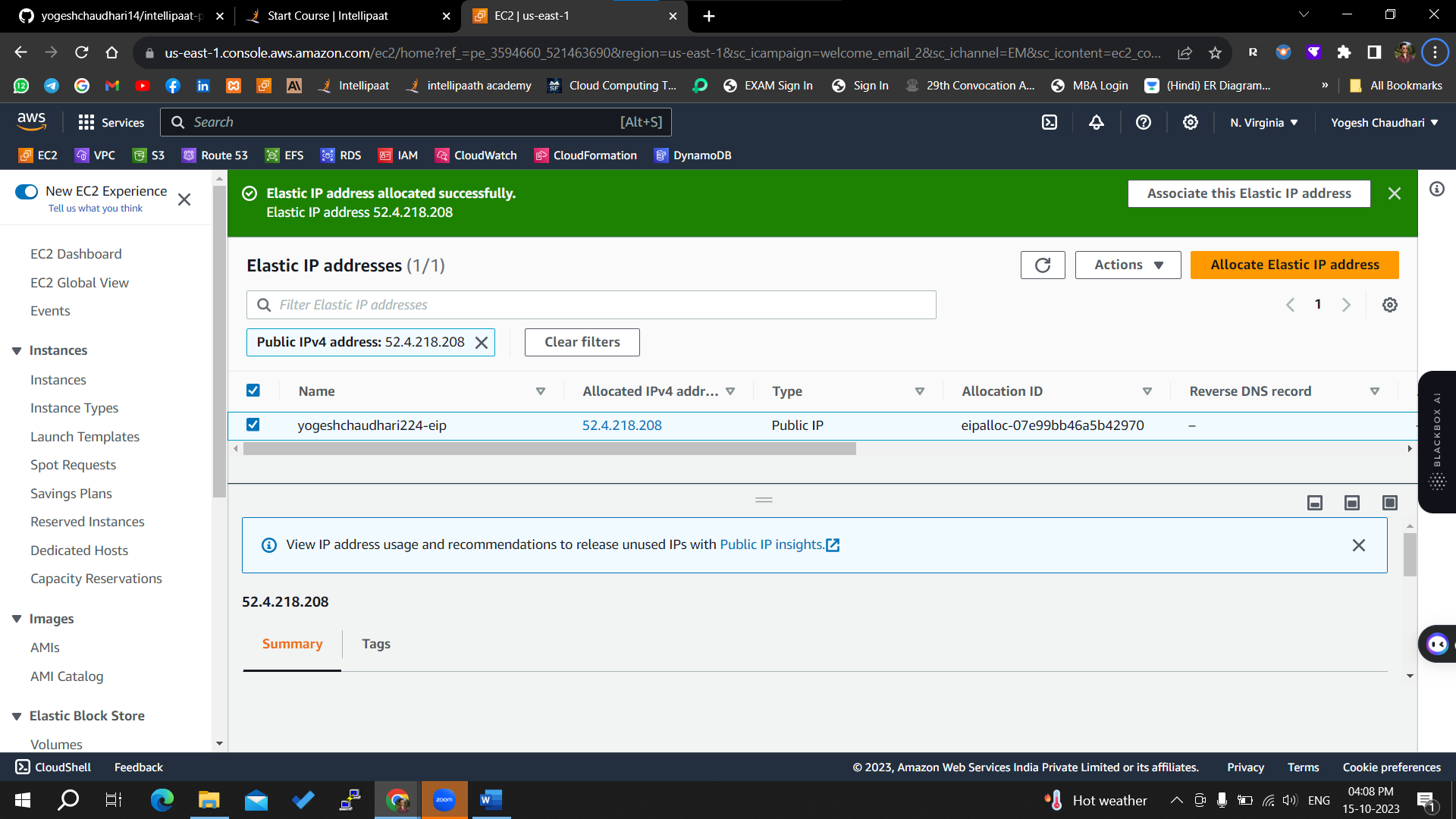
### Create a private instance in Oregon using the above created AMI and install required dependencies to mount EFS, once dependencies are installed revoke the internet access to the instance.

### Implement access controls to allow both N. Virginia and Oregon EC2 instances to access the EFS.

ANS :-

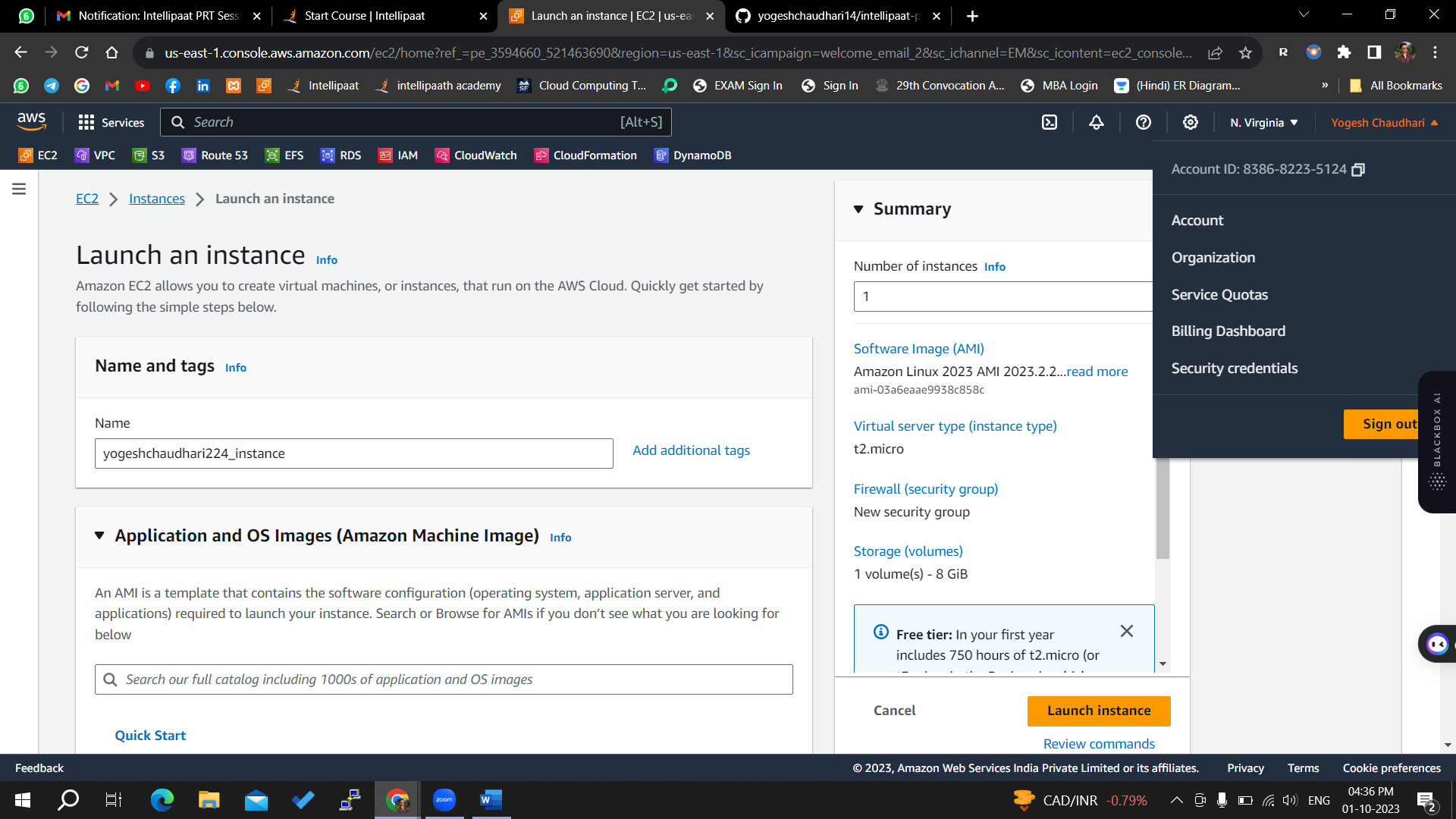
For this task first we have to create an Elastic IP

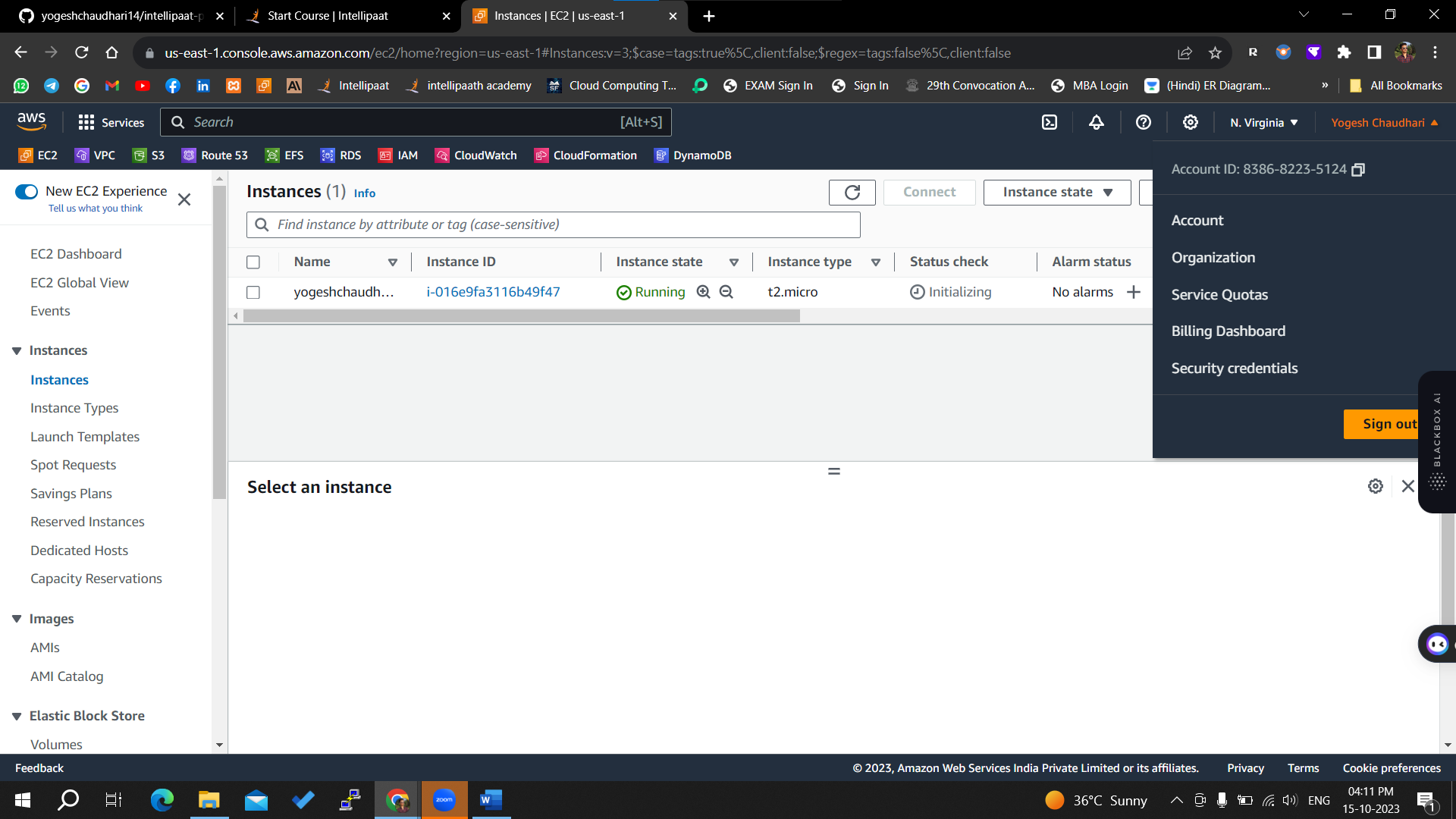




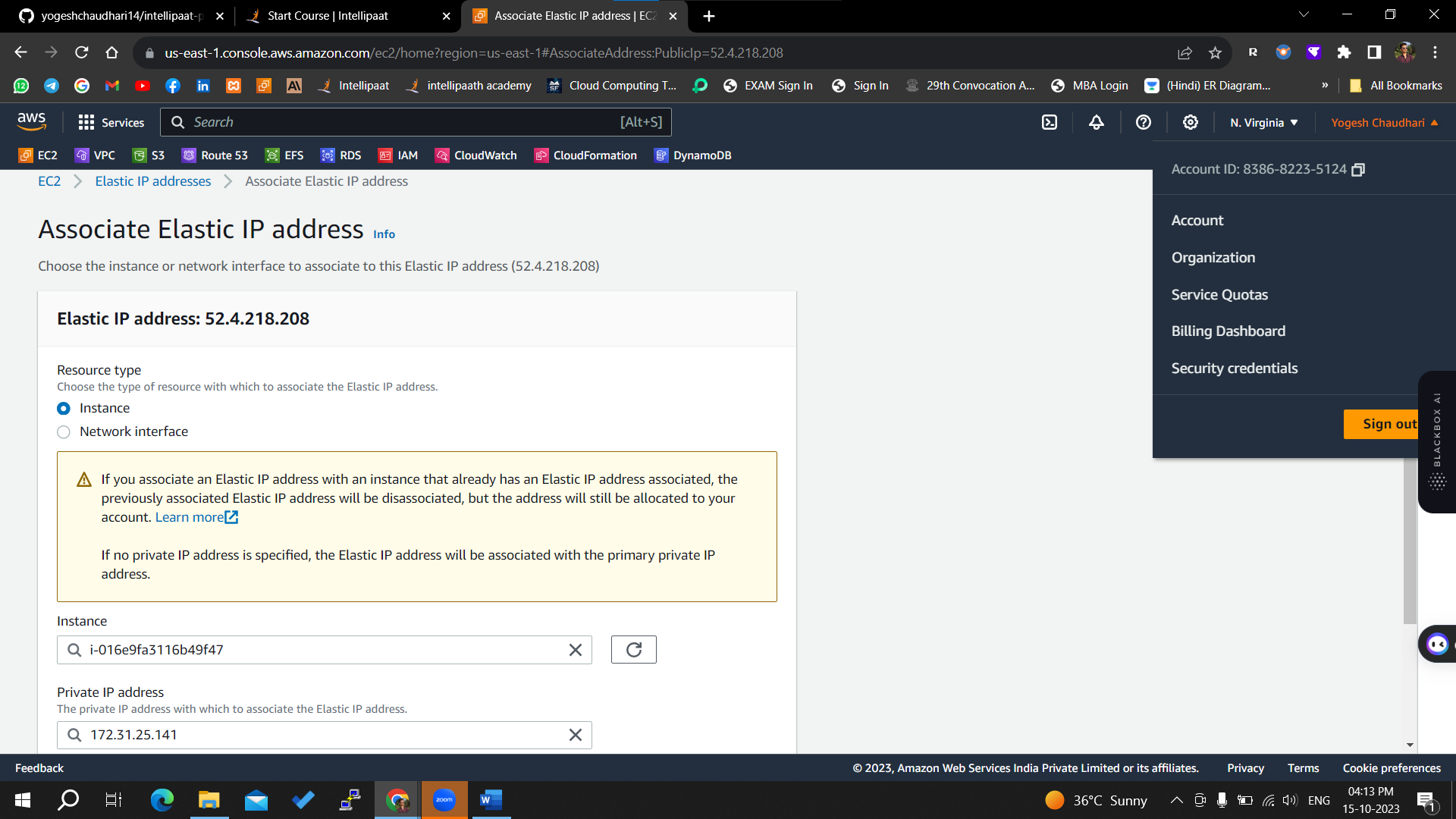
Above we have successfully created an Elastic IP

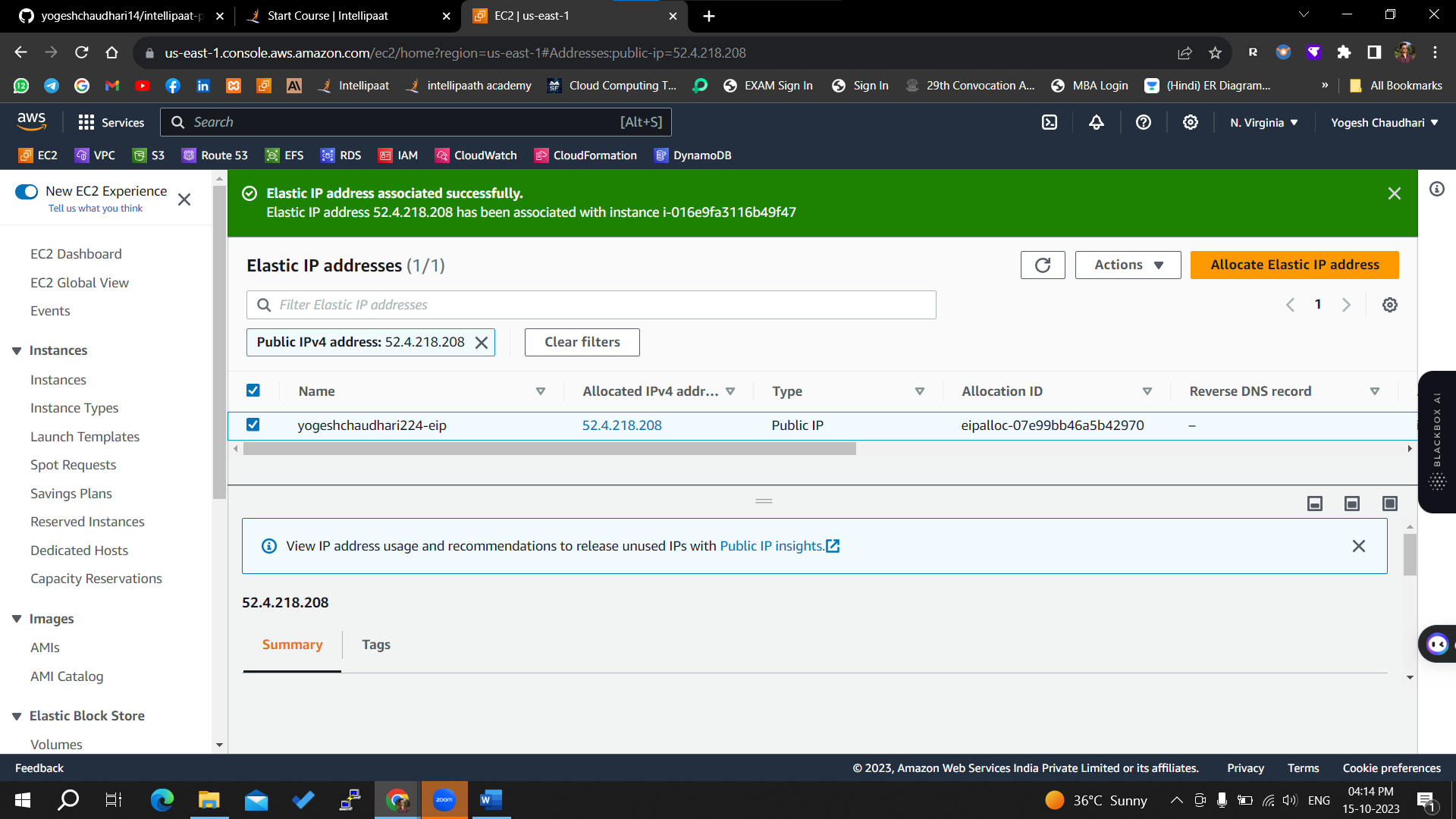
Now we have to attach this ip to our instance for that we will go to instance and create an new ubuntu instance



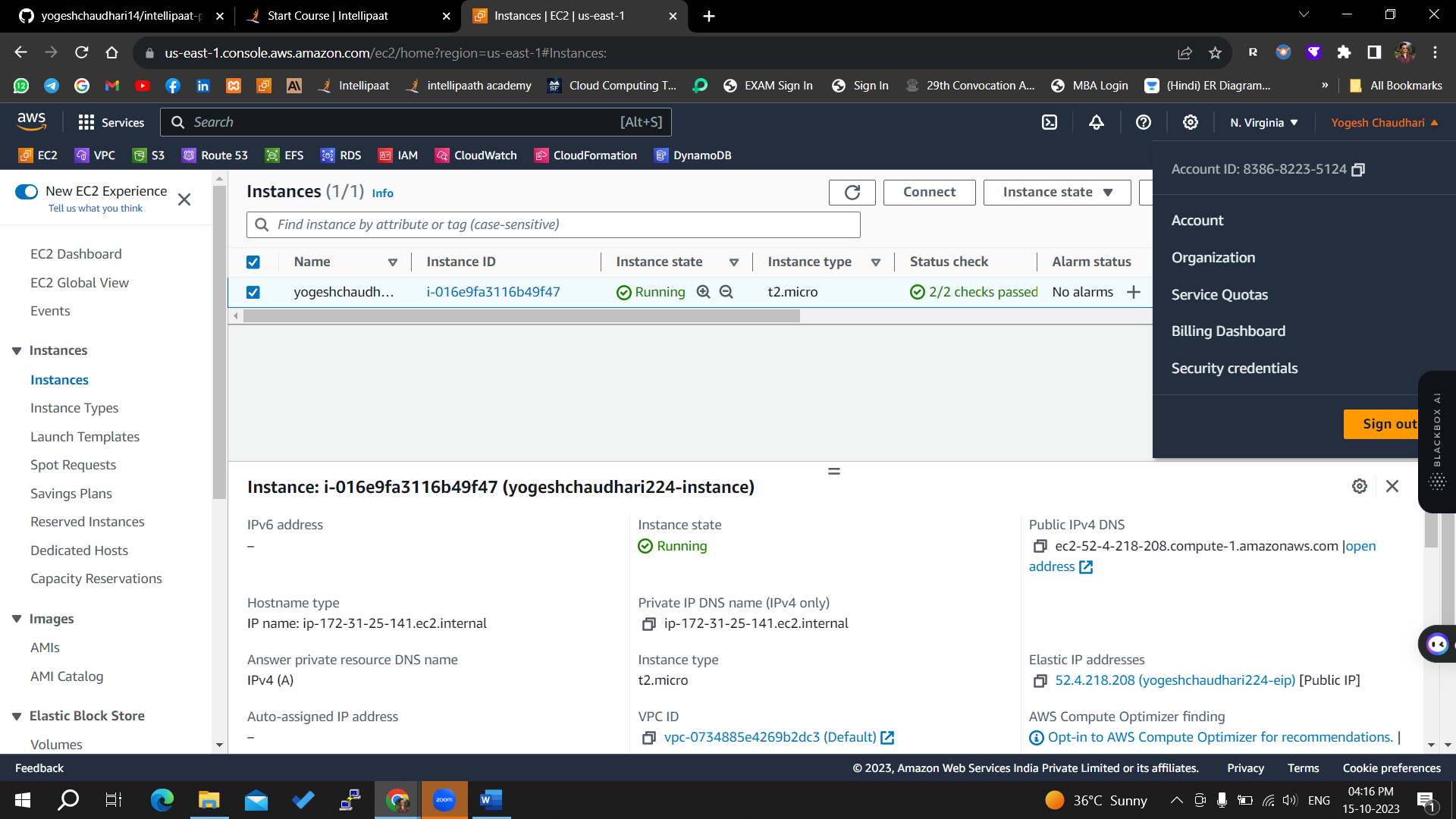


On above we have successfully created an instance now we will attach Elastic IP that we have created



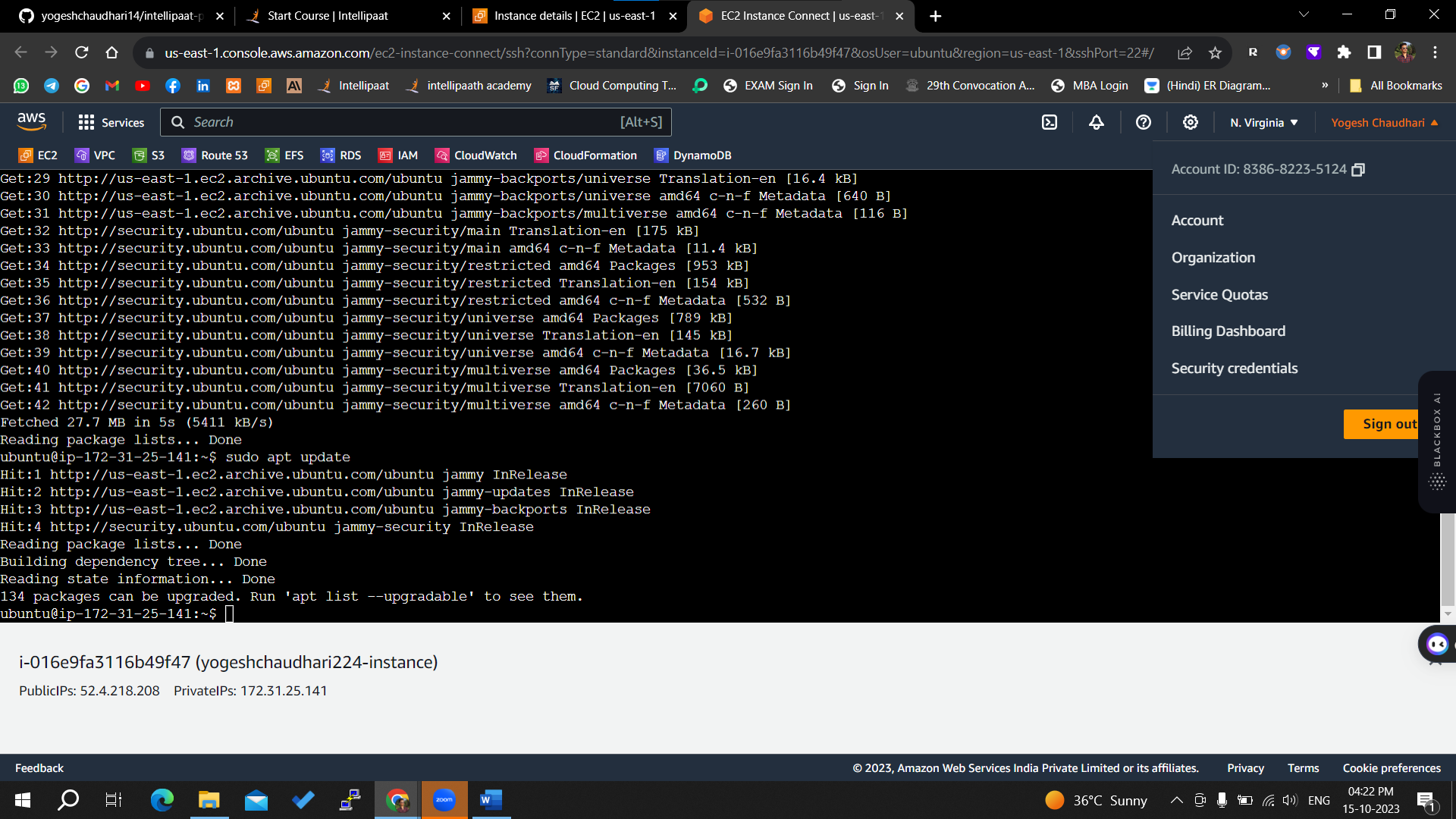


In above image we have successfully associated EIP to our instance now we will check it on instance too.



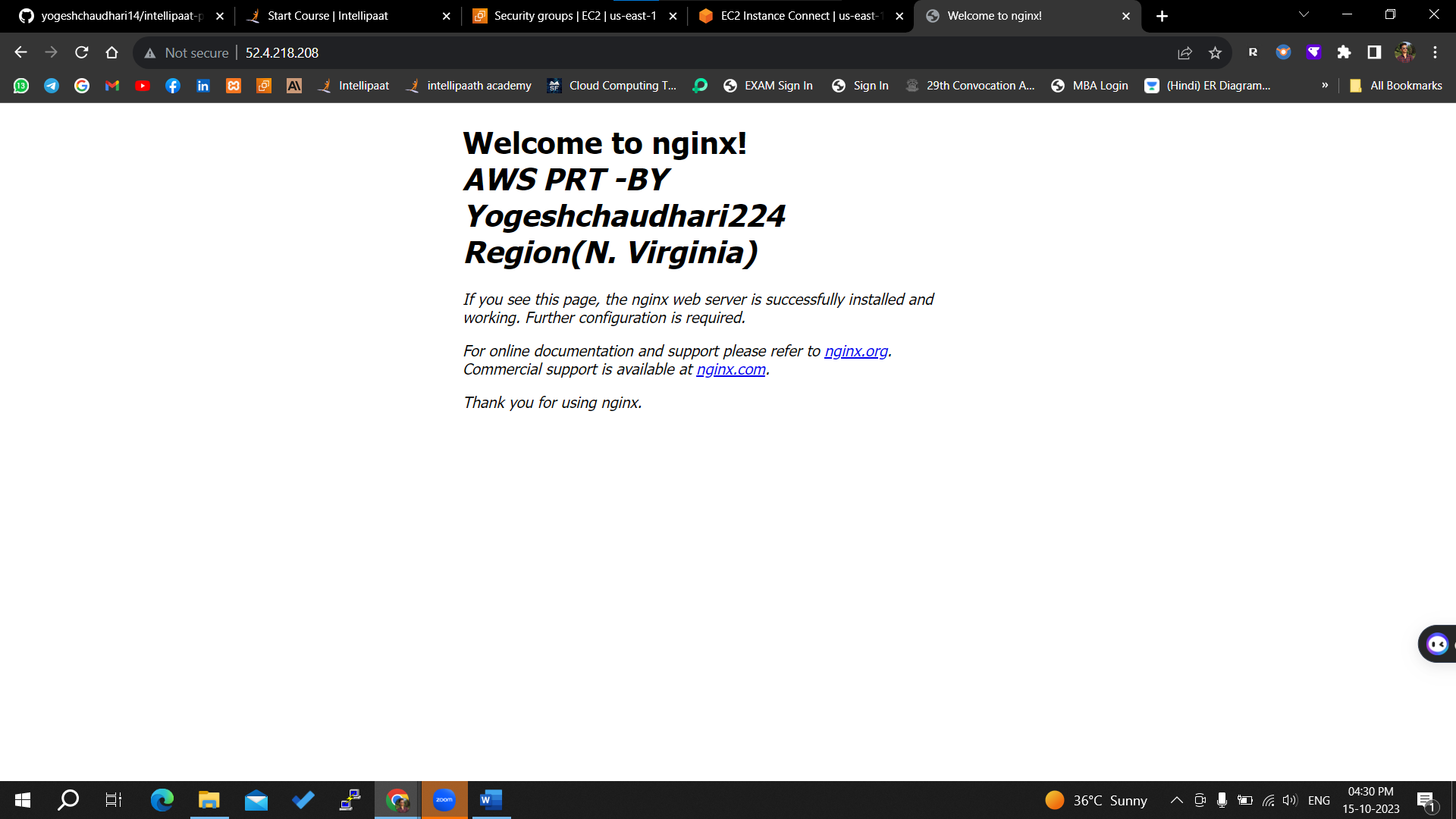


Above we attach elastic IP



It is connected using ssh

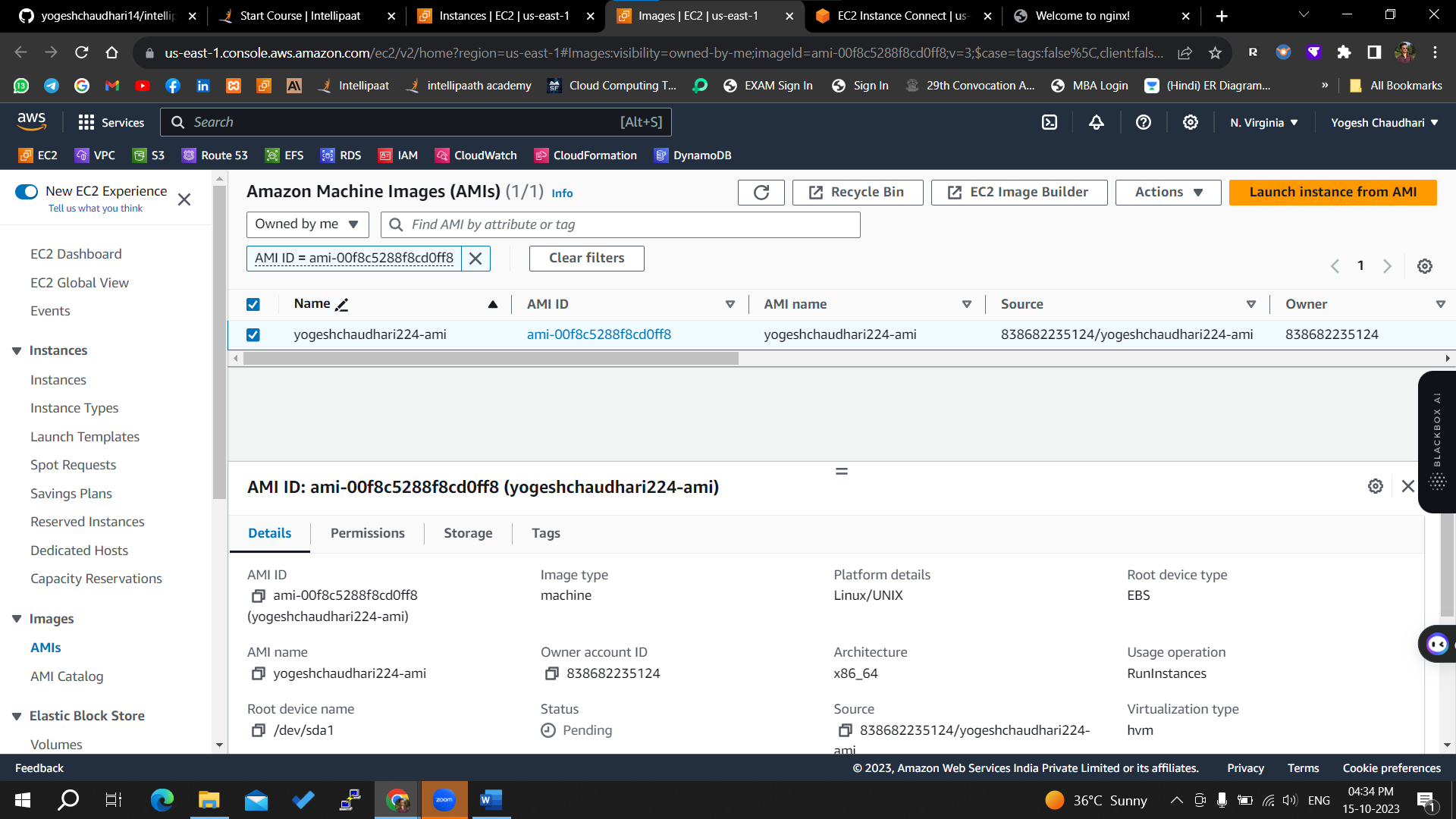
Now we will install Nginx server and test it



## Objective 2: Establish a backup in Oregon to ensure high availability. - Tasks:

## Create a backup (AMI) of this EC2 instance in a different region (Oregon).

Now we will create a backup of this AMI

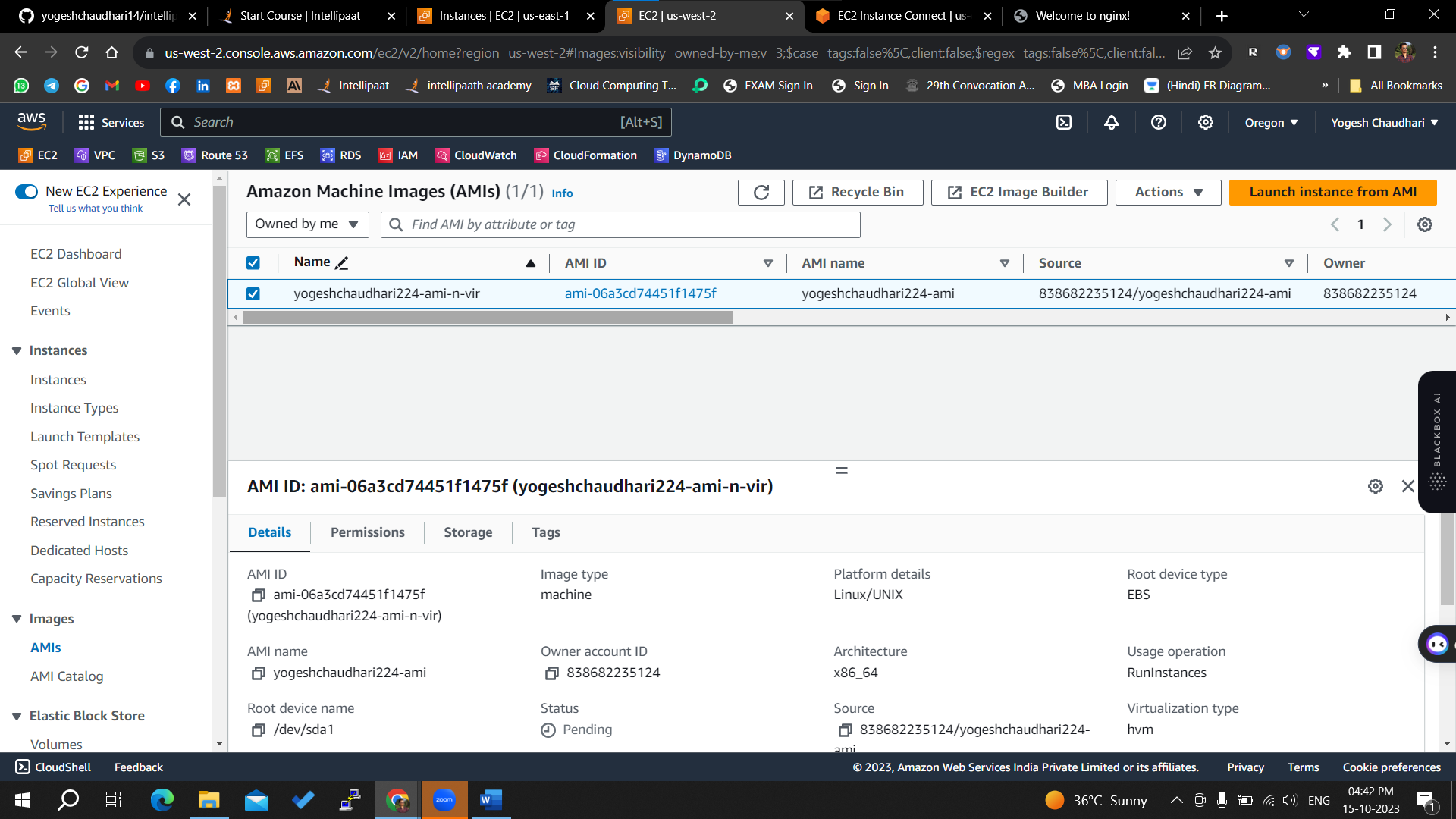


We created an AMI of our current instance

Now we will copy this AMI in oregaon region



Now we will go to Oregon region and check this AMI is available or not



This AMI is Availabe in Oregon region

## Objective 3: Set up an Amazon Elastic File System (EFS) for shared data storage. –

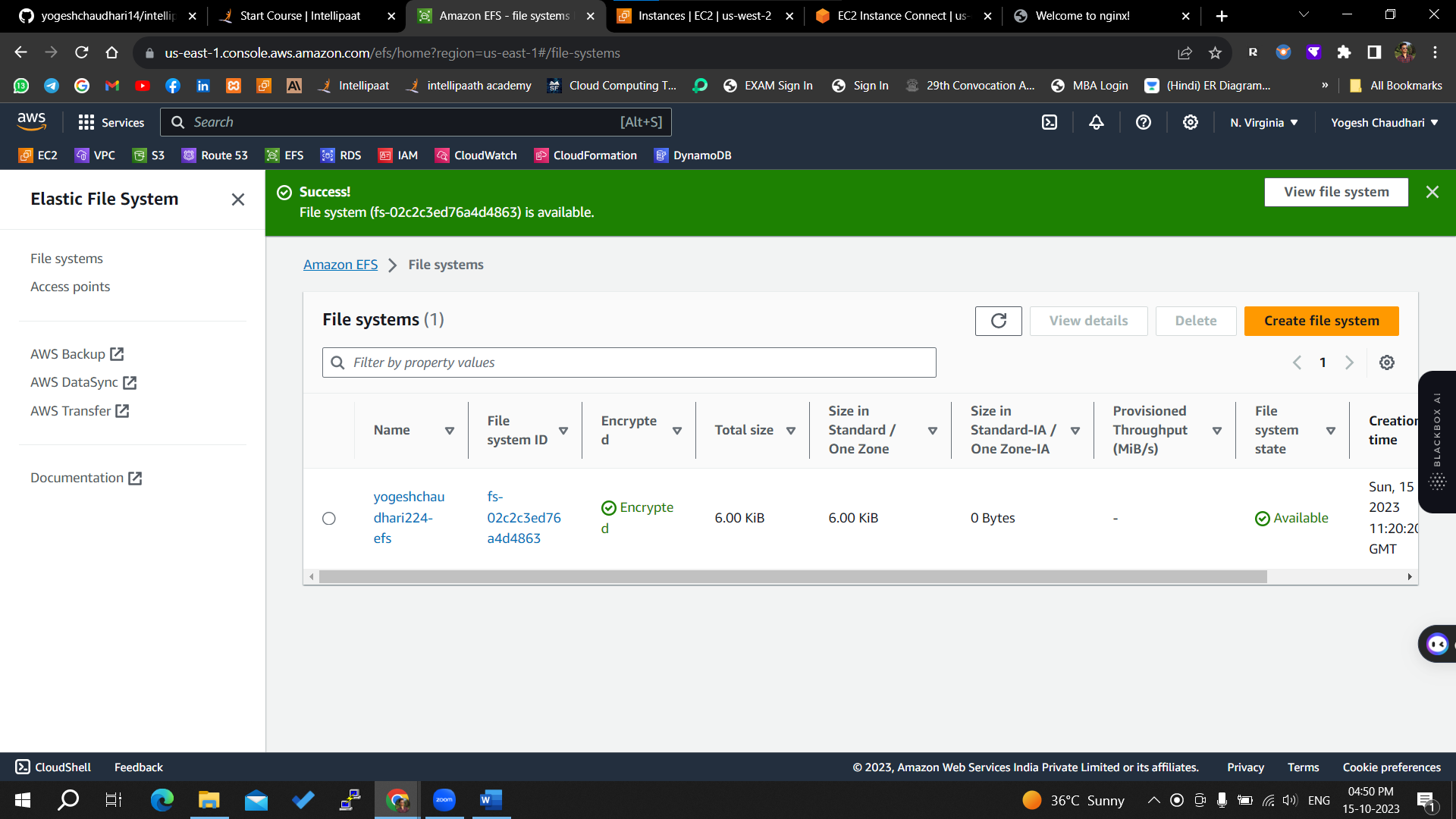
## Tasks:

## Create an Amazon EFS in N. Virginia.

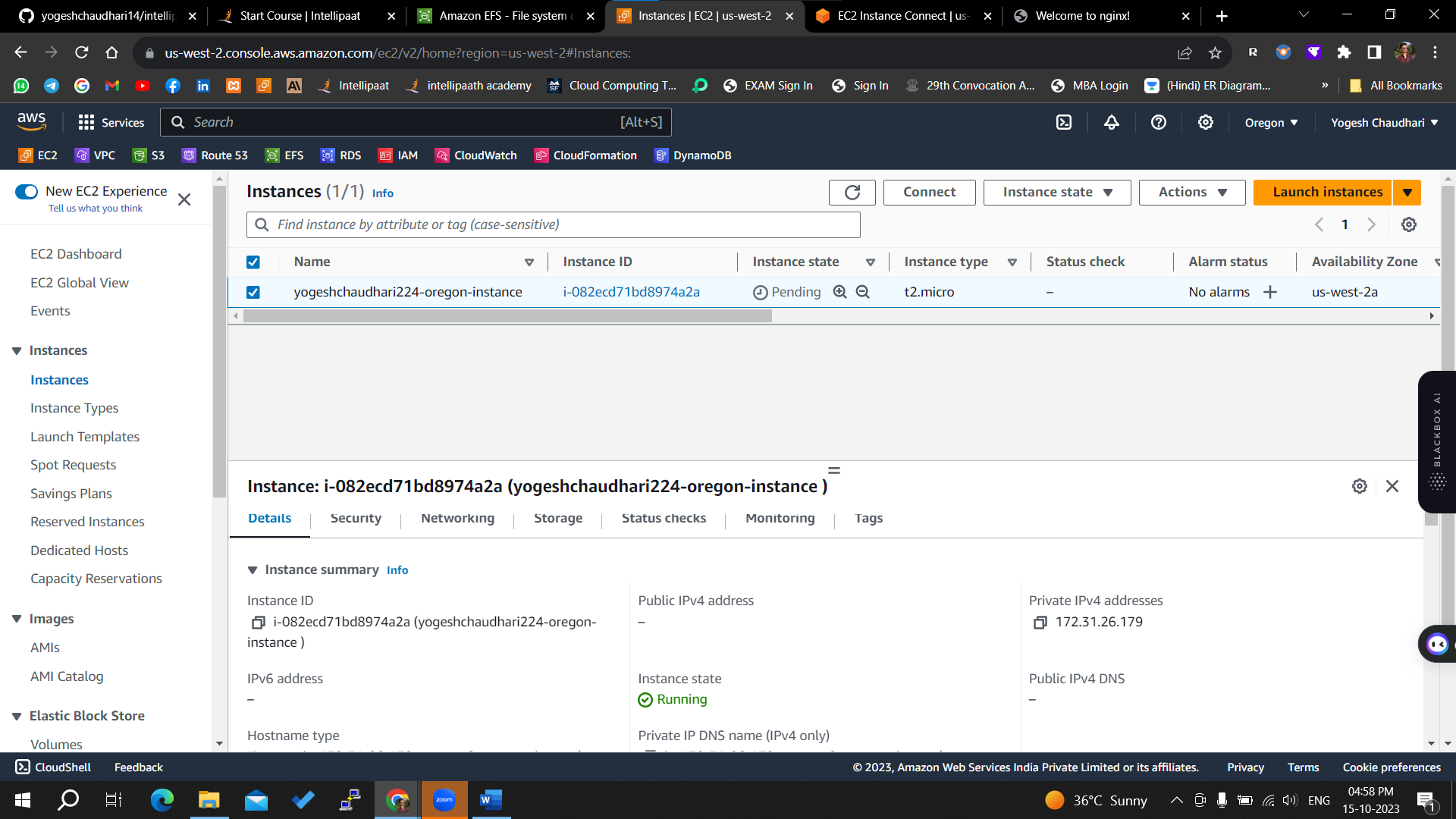
## Create a private instance in Oregon using the above created AMI and install required dependencies to mount EFS, once dependencies are installed revoke the internet access to the instance.

## Implement access controls to allow both N. Virginia and Oregon EC2 instances to access the EFS.

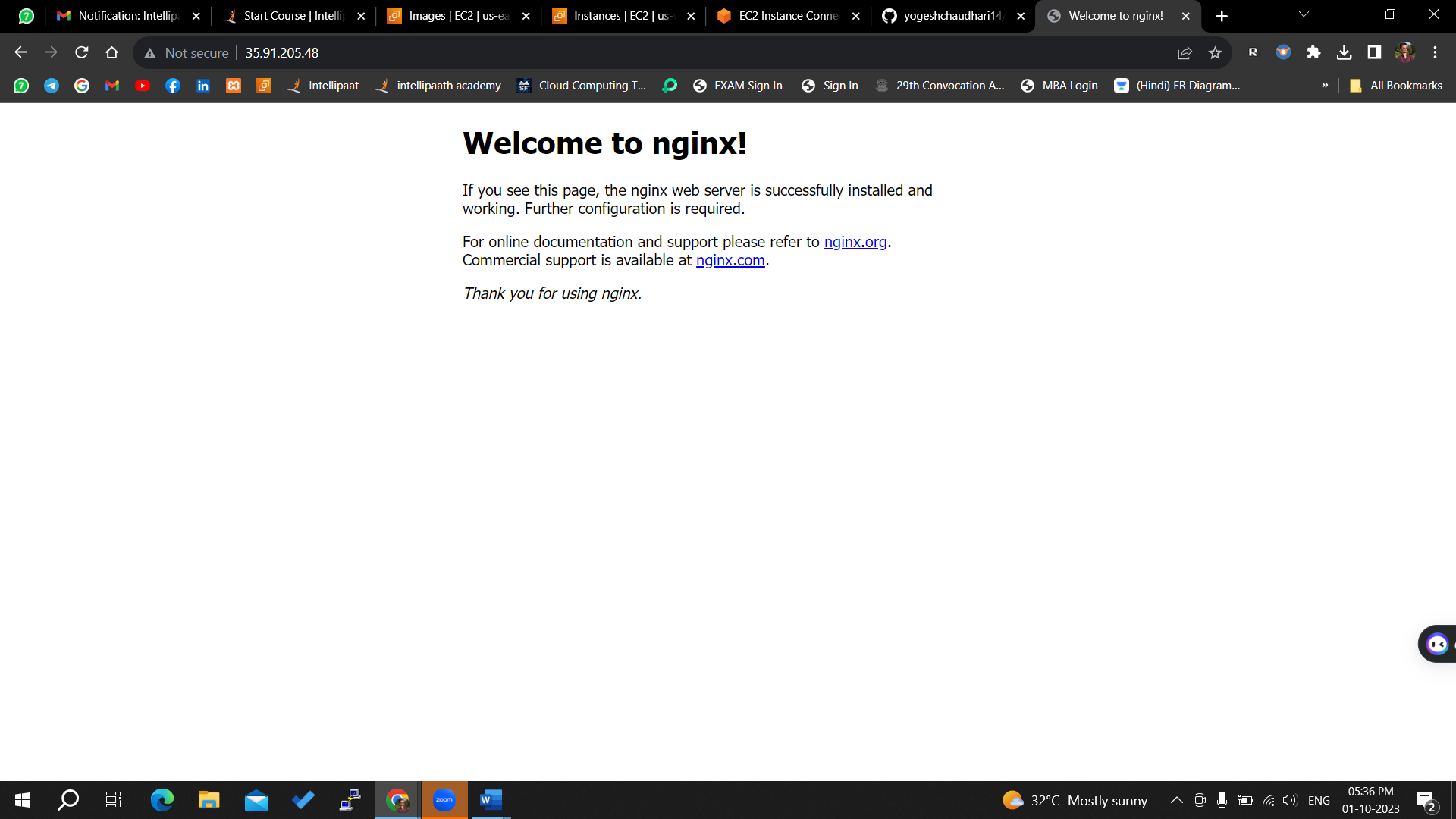
Now we will create an EFS in N. Virginia Region



Now we will go to Oregon Region and create instance from AMI

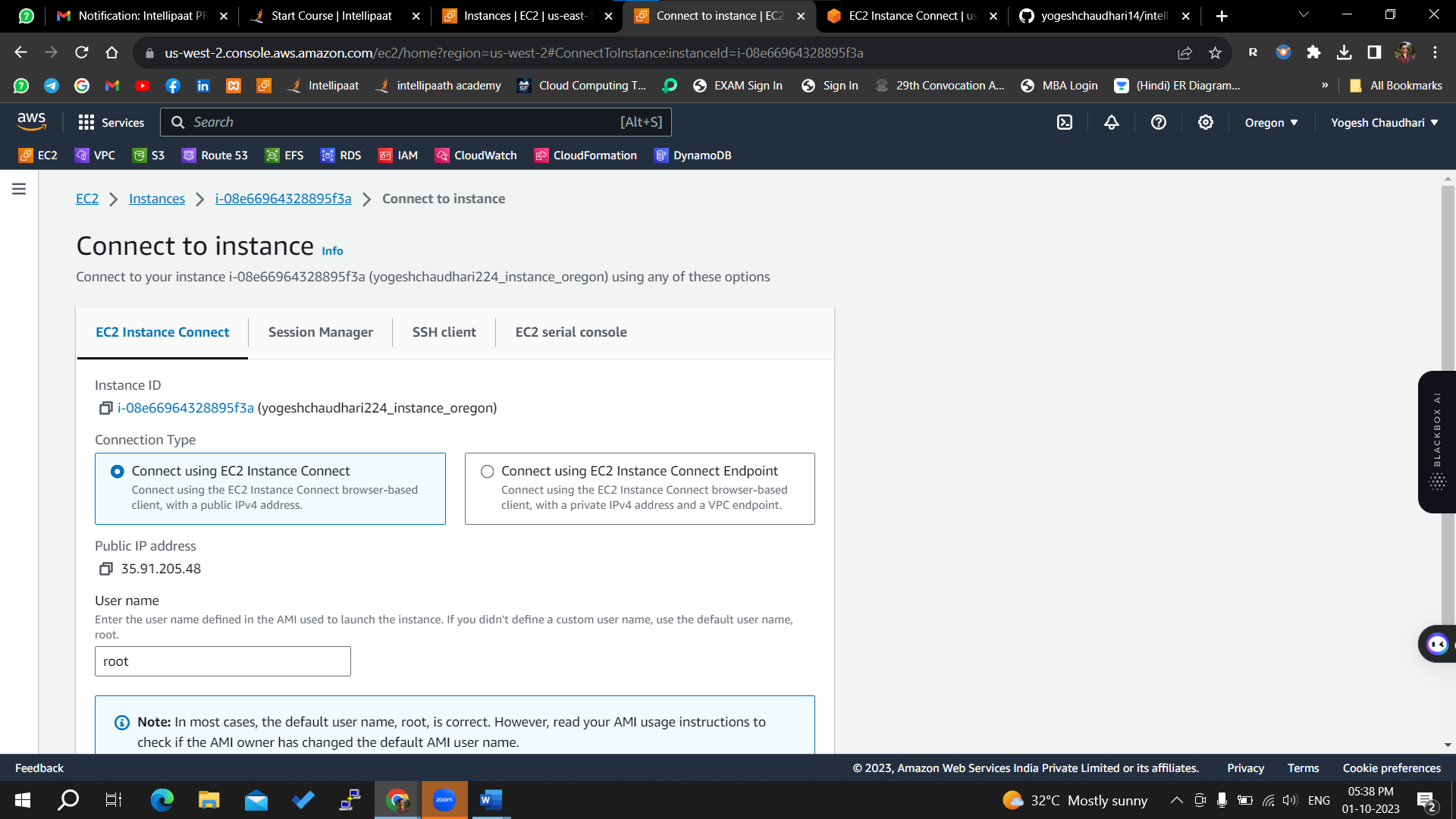


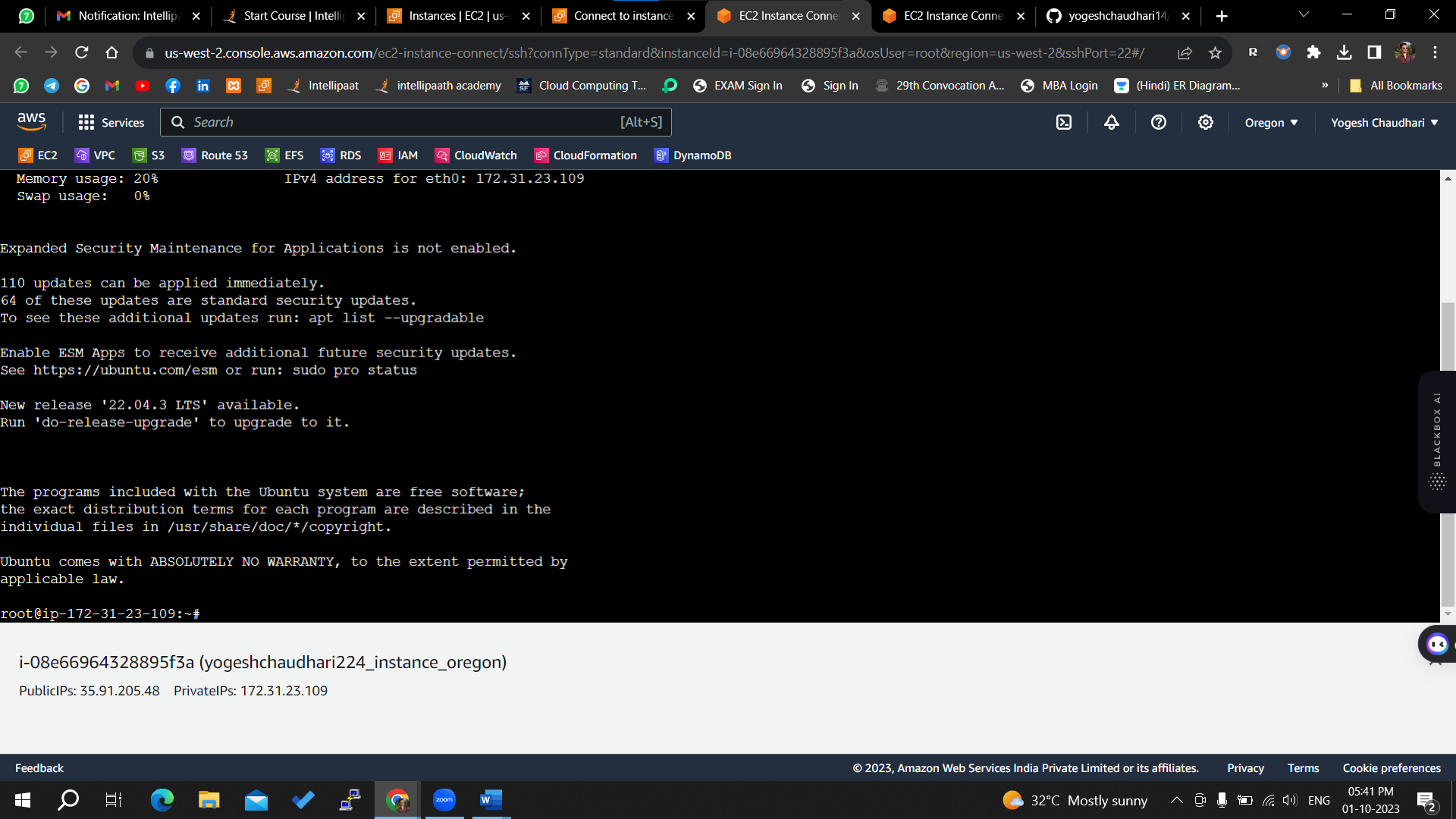
Successfully created an instance from AMI



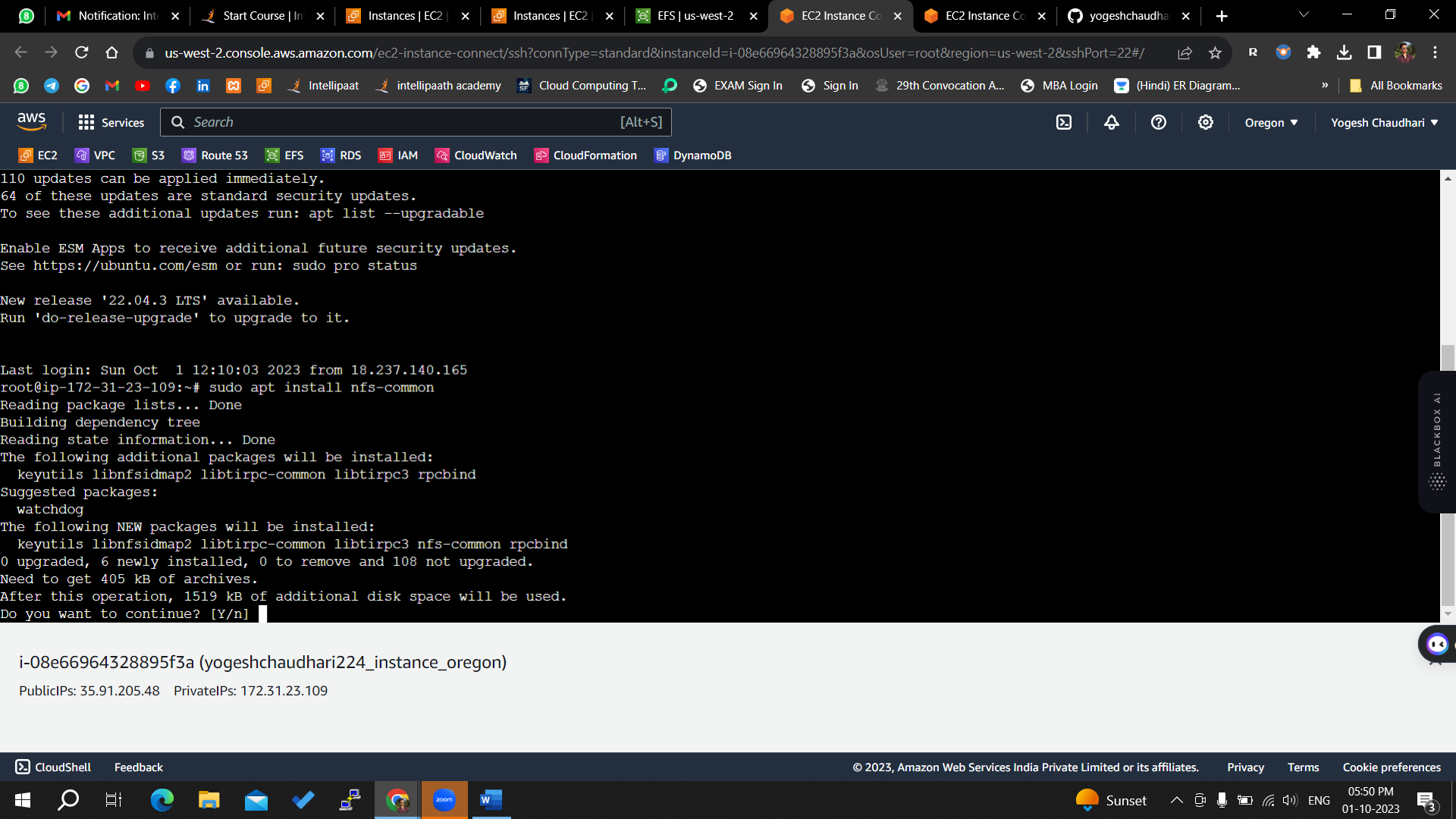
Also it is working

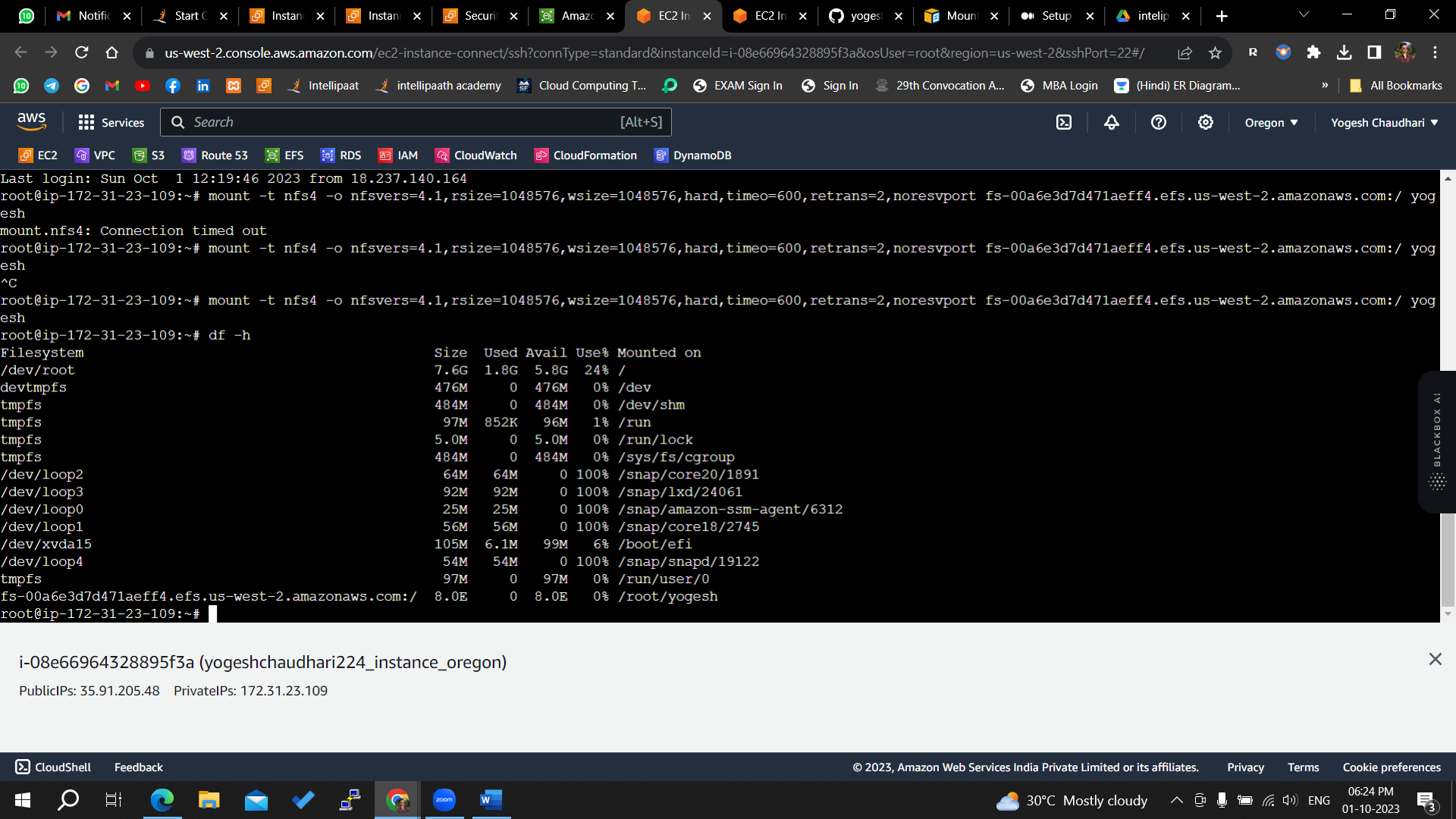
Now we will connet this via ssh





Now we will be install dependency for EFS



 nfs is installed