Module name : AWS cloud

Assignment name : L1 - Demonstrate the AWS EC2 Ubuntu Instance Creation steps and connect to EC2 Instance using Mobaxterm/putty agent

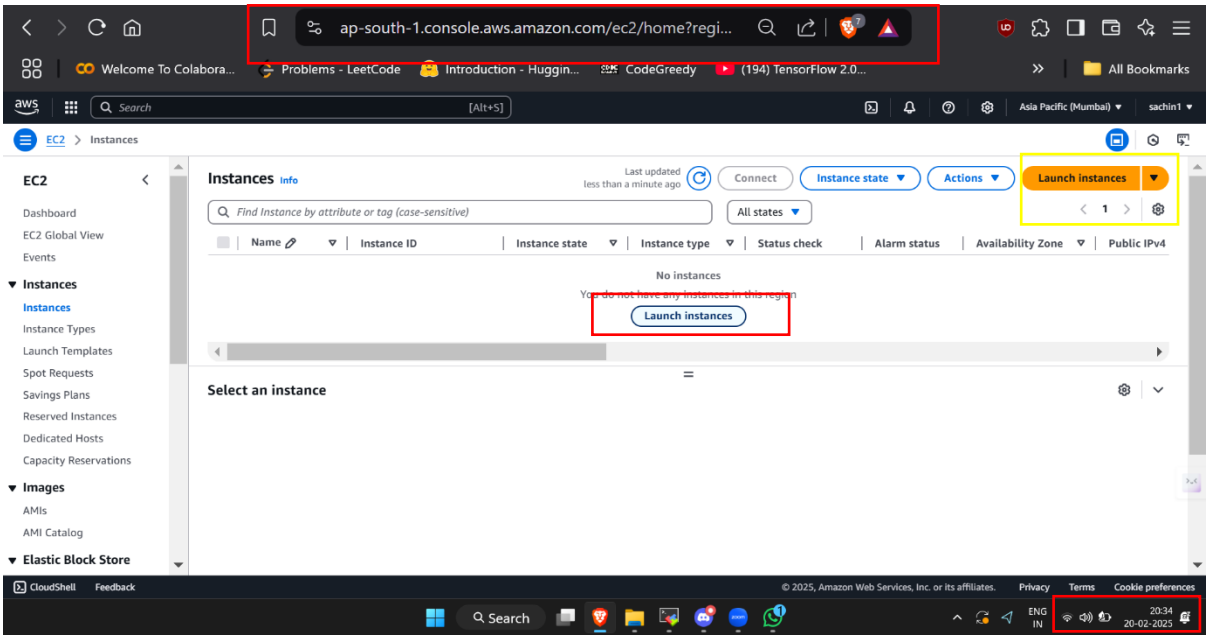
Submitted by : Sachin V Bacha

Submitted on : 06-03-2025

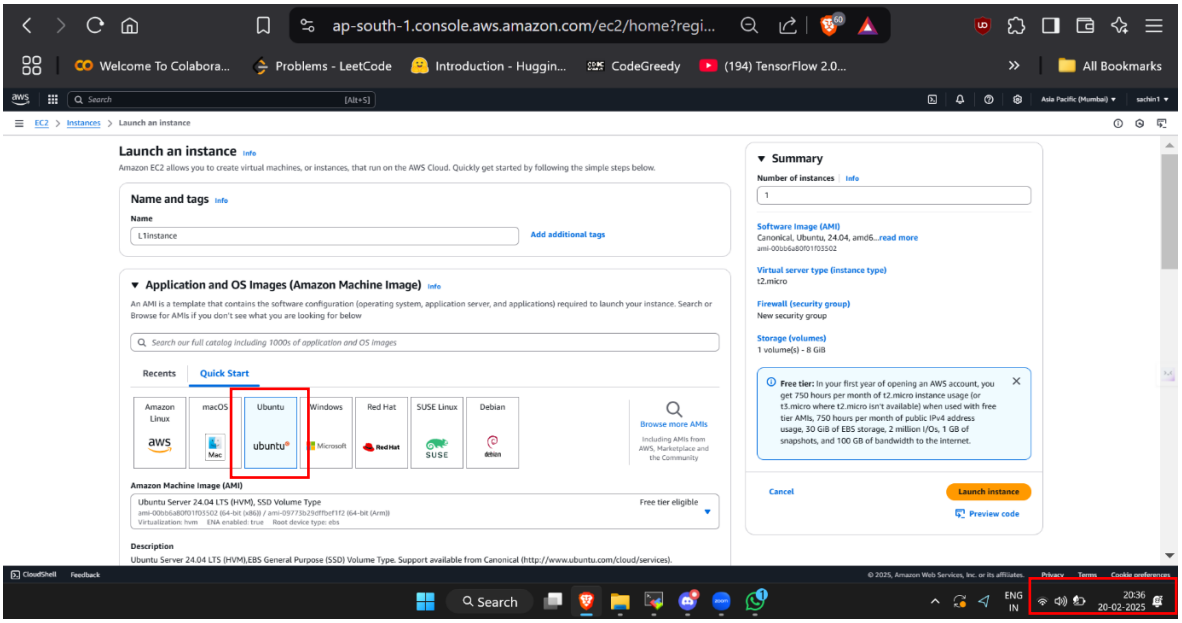
L1

Steps

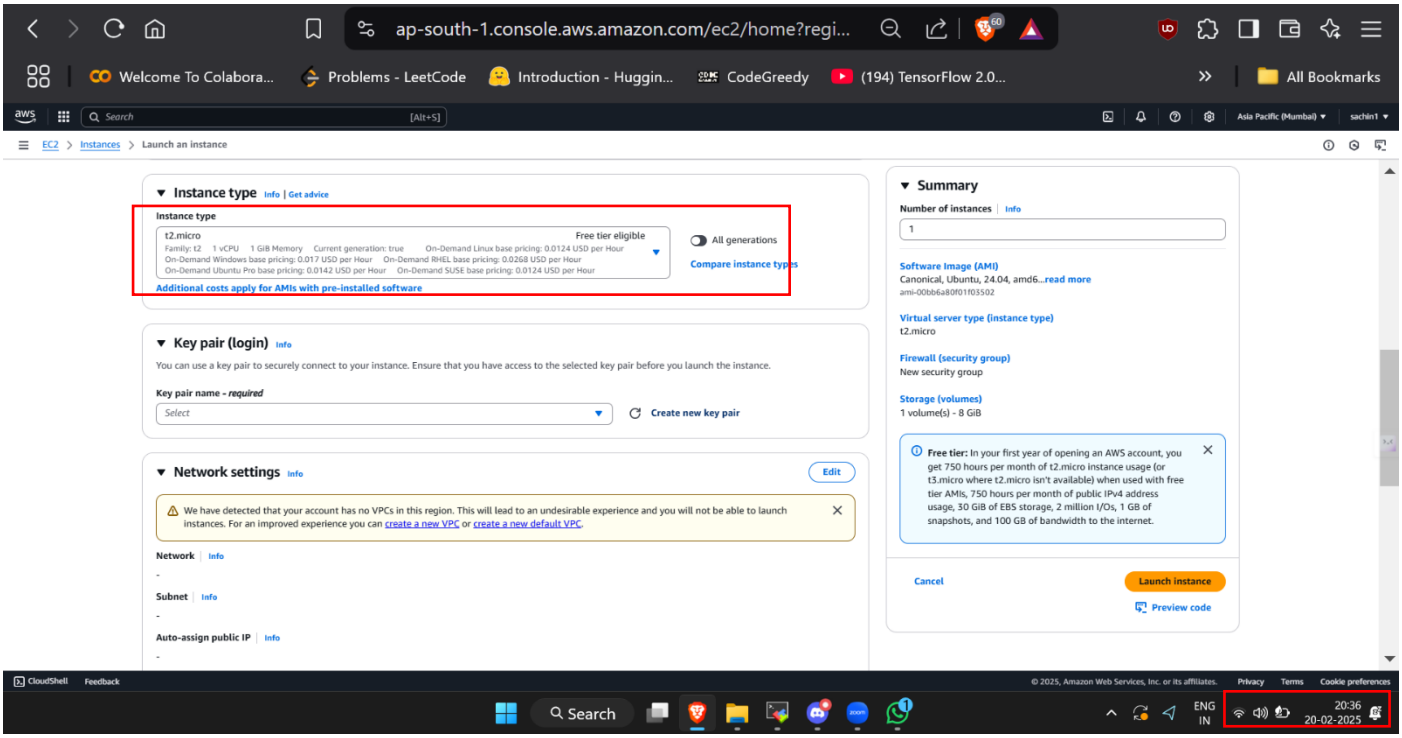
Step1 : Login to the aws account and go to ec2 service then instances click launch instances



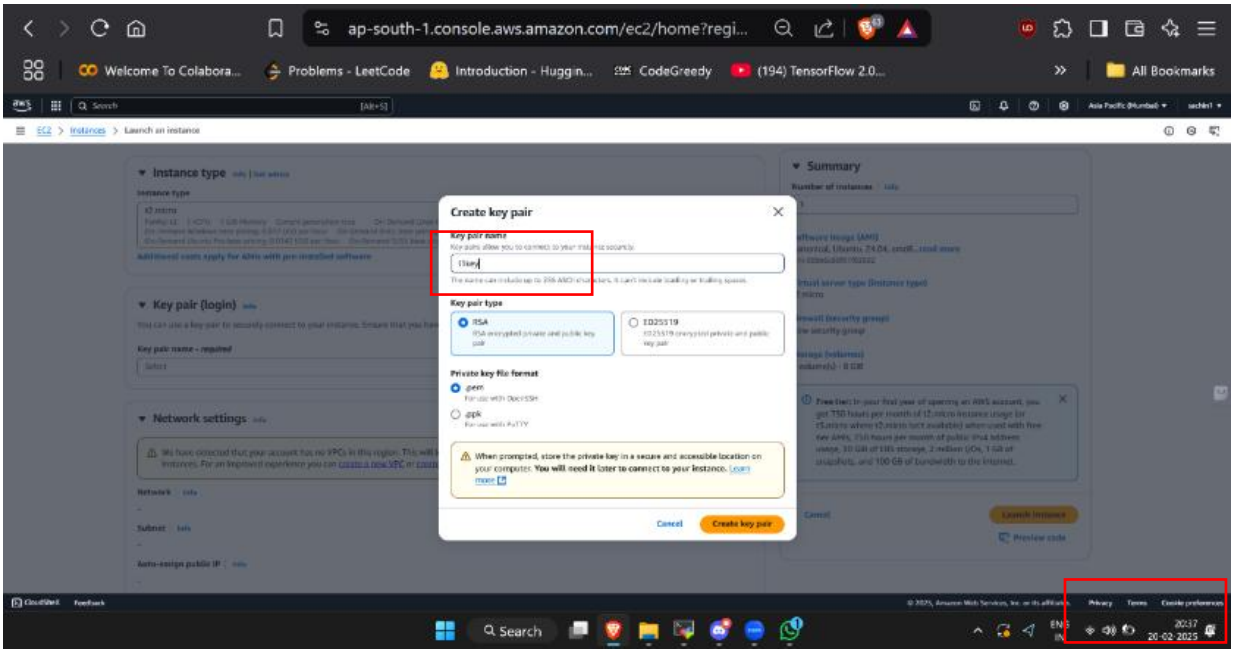
Step 2 : Give the name of the instance in my case **L1instance** then select **OS as ubuntu**



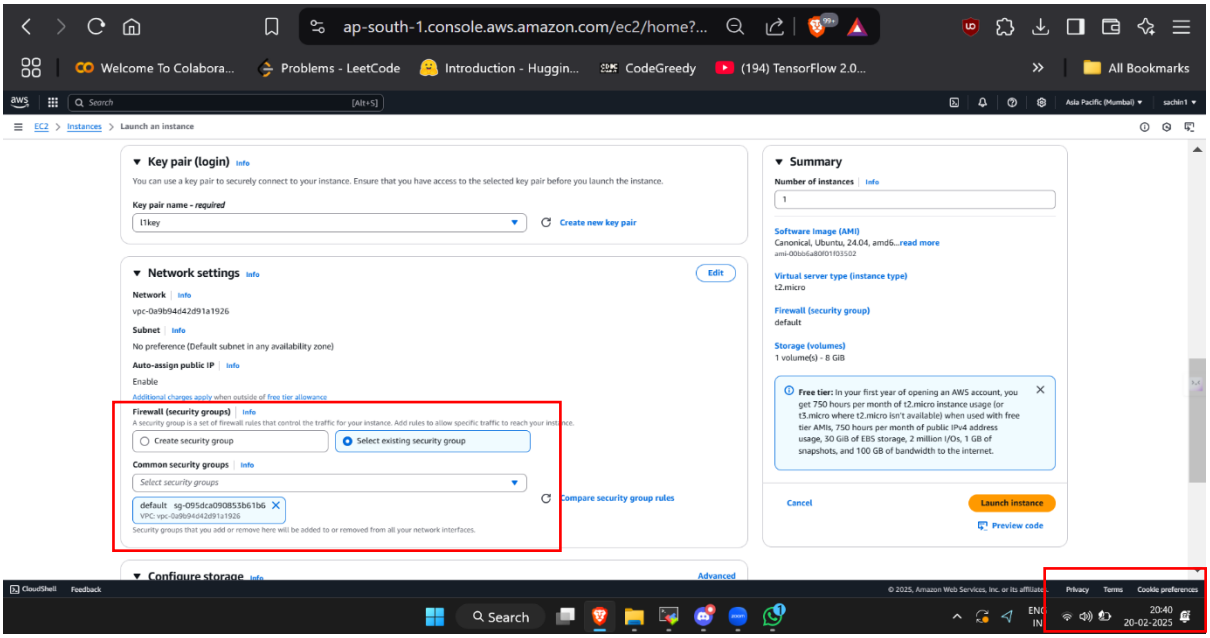
Step3 : select instance type i.e configuration of machine in my case I've selected **t2 micro**



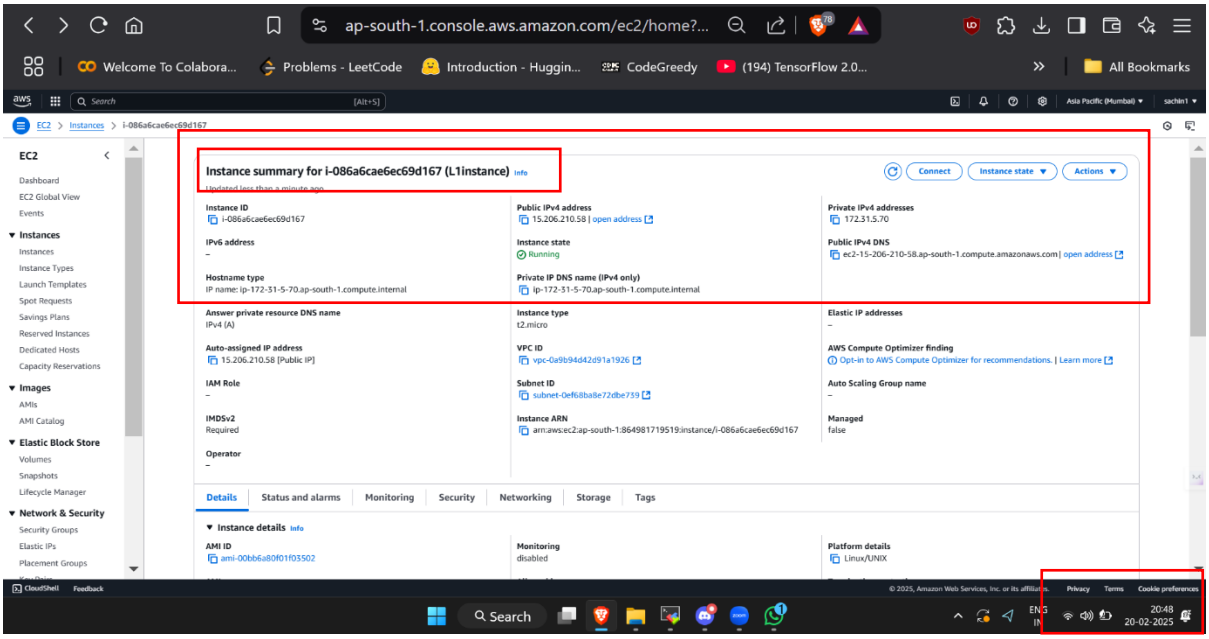
step4 : Create a key pair with RSA + pem combination in my case with name **l1key**



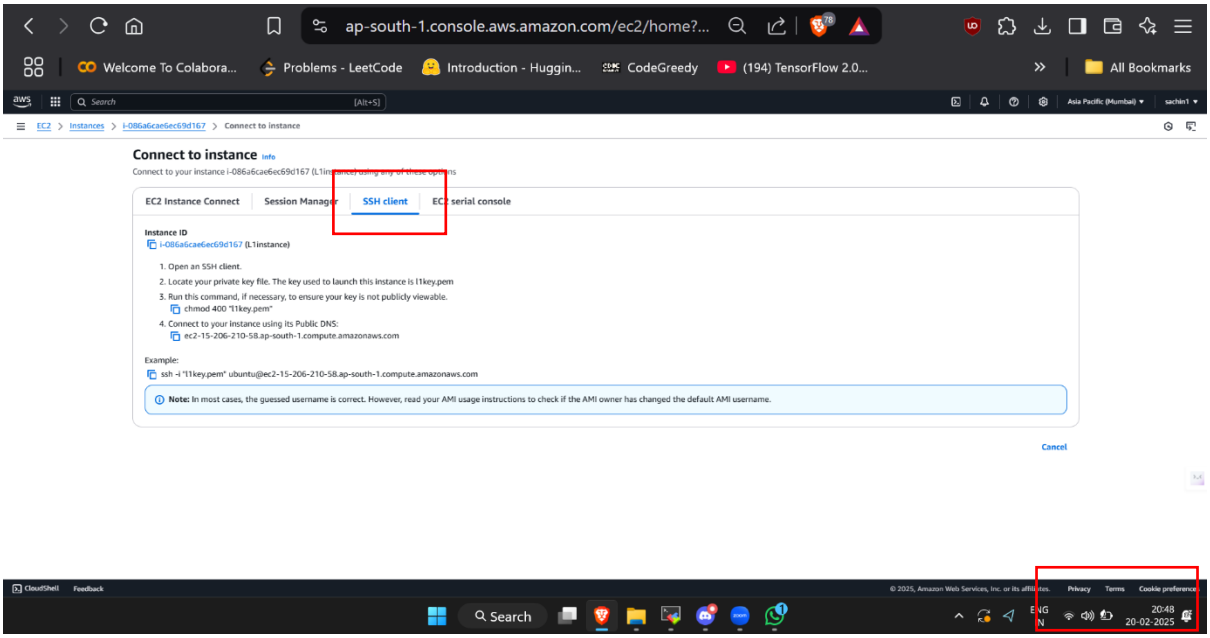
step5 : Select the security group and also check the inbound rules allow it for all traffic . Click launch instance



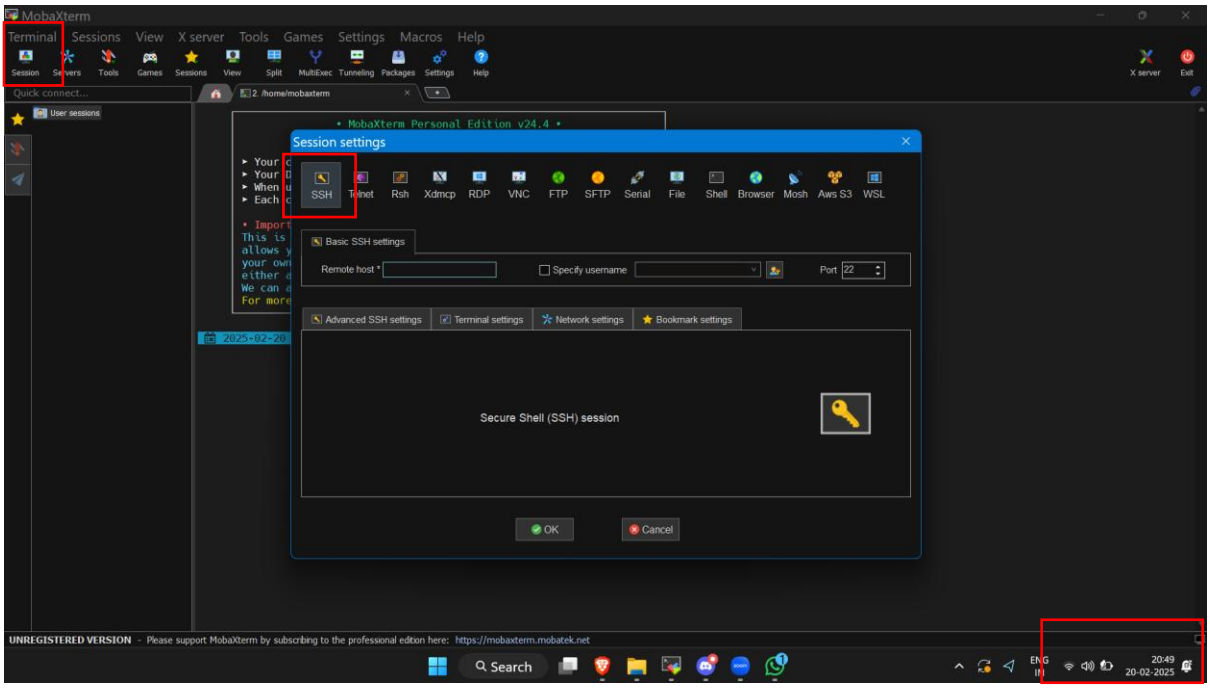
step6 : check for the instance details



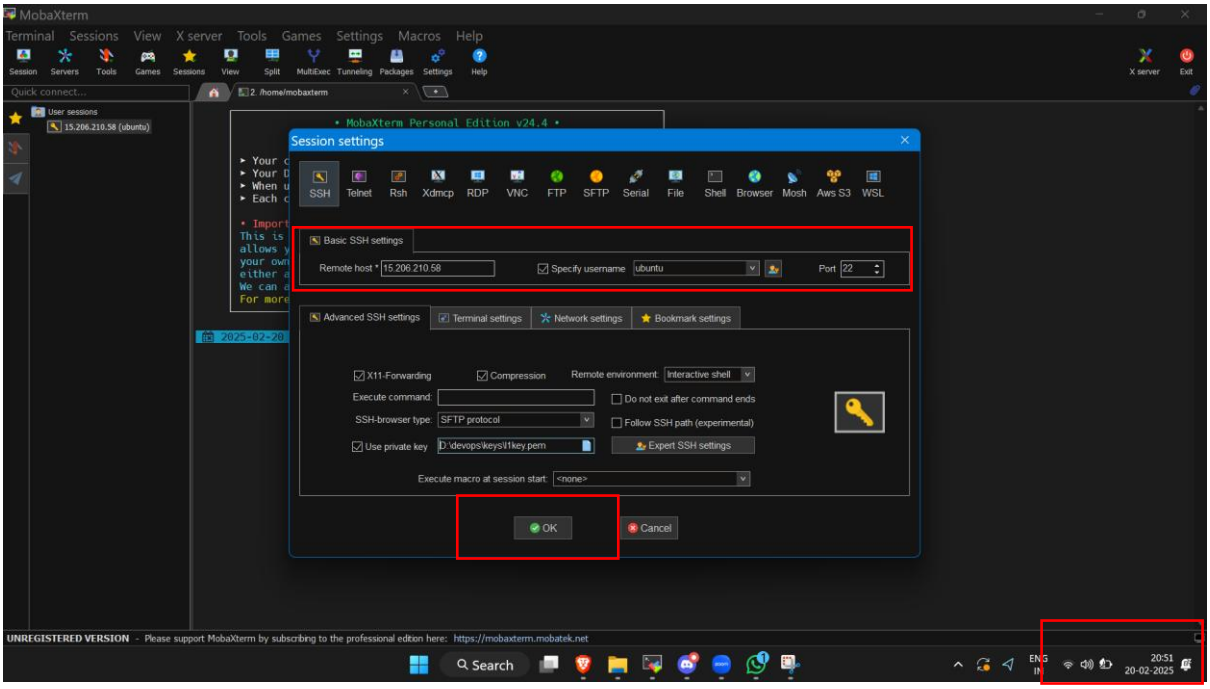
step7 : Inorder to connect with mobaxterm go to the ssh client details



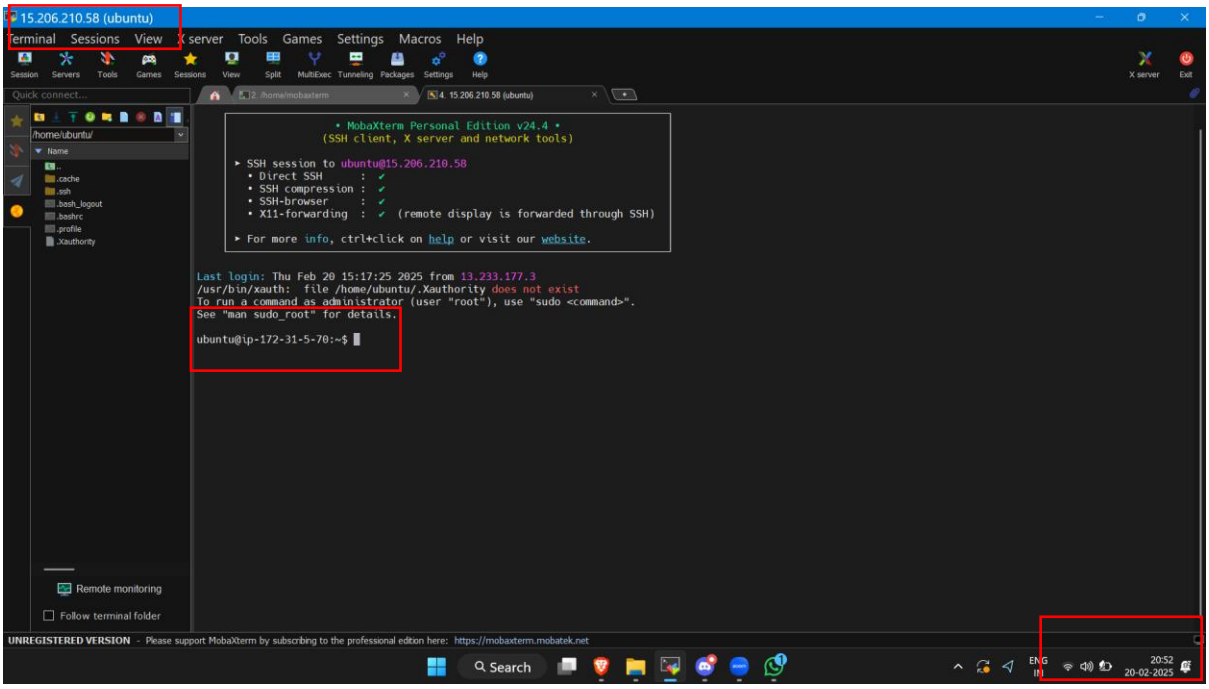
step8: Open mobaxterm click on session -> new session -> SSH



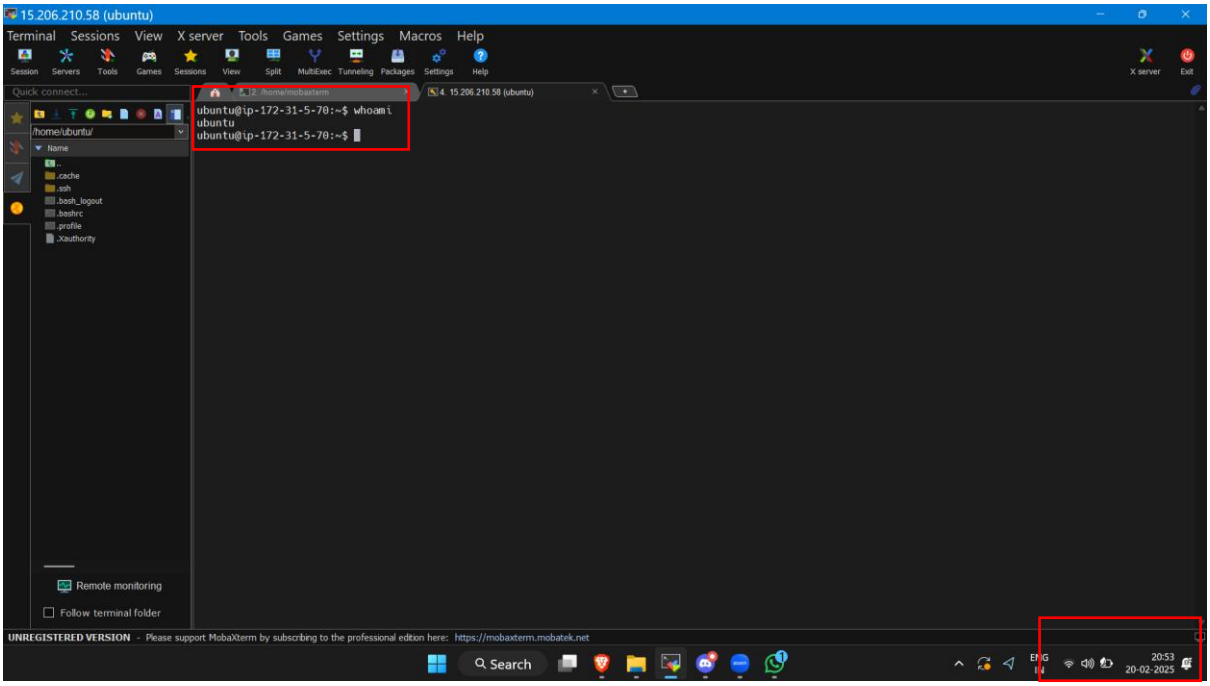
step9: Enter the required details remote host (public ip) and username and attach the private key i.e (l1key.pem in my case) -> ok



step10: Now the instance gets connected to the ubuntu ec2 instance



step11 : check for the instance by command “whoami”


15.206.210.58 (ubuntu)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
2. /home/mobaxterm
4. 15.206.210.58 (ubuntu)
ubuntu@ip-172-31-5-70:~$ whoami
ubuntu
ubuntu@ip-172-31-5-70:~$
/home/ubuntu/
Name
..
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net
Search
ENG
IN
20:53
20-02-2025

Module name : AWS cloud

Assignment name : L2 - Login to AWS Console and Create IAM User, Role,and Group

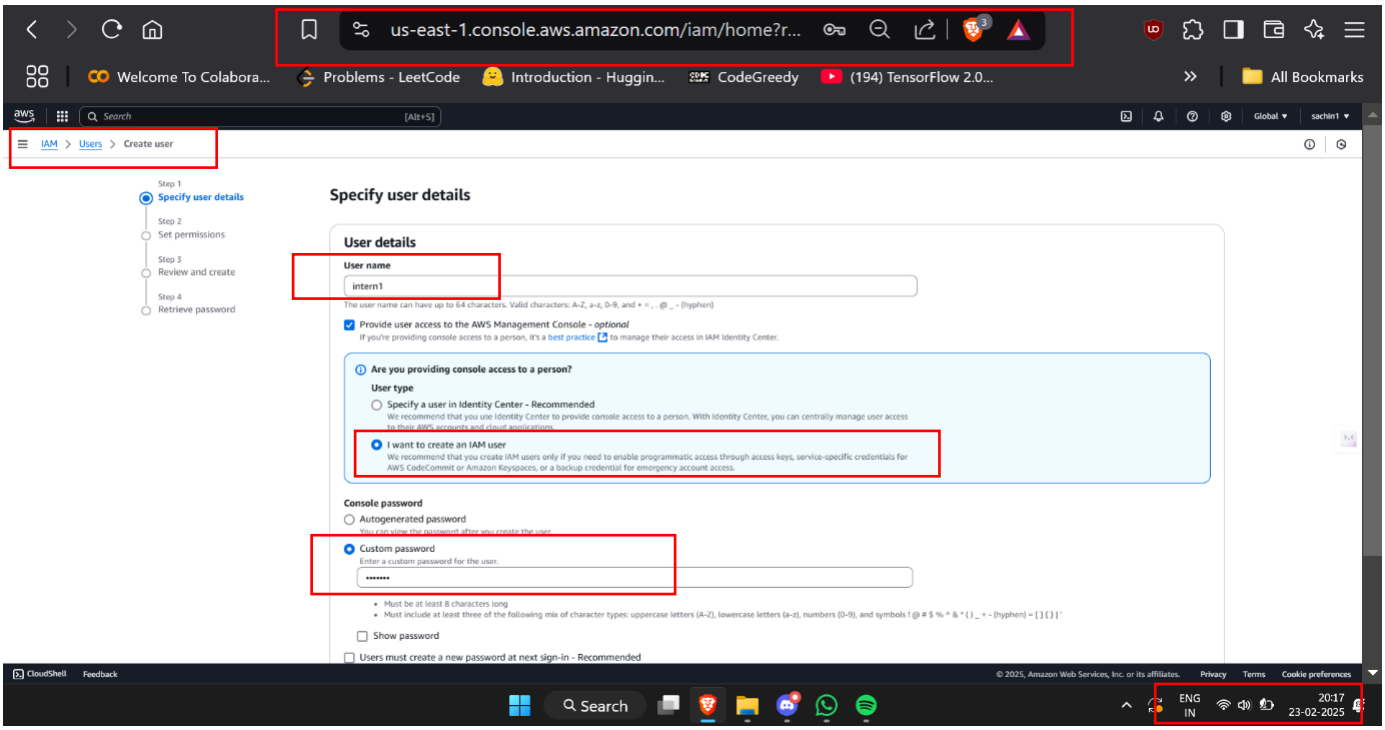
Submitted by : Sachin V Bacha

Submitted on : 06-03-2025

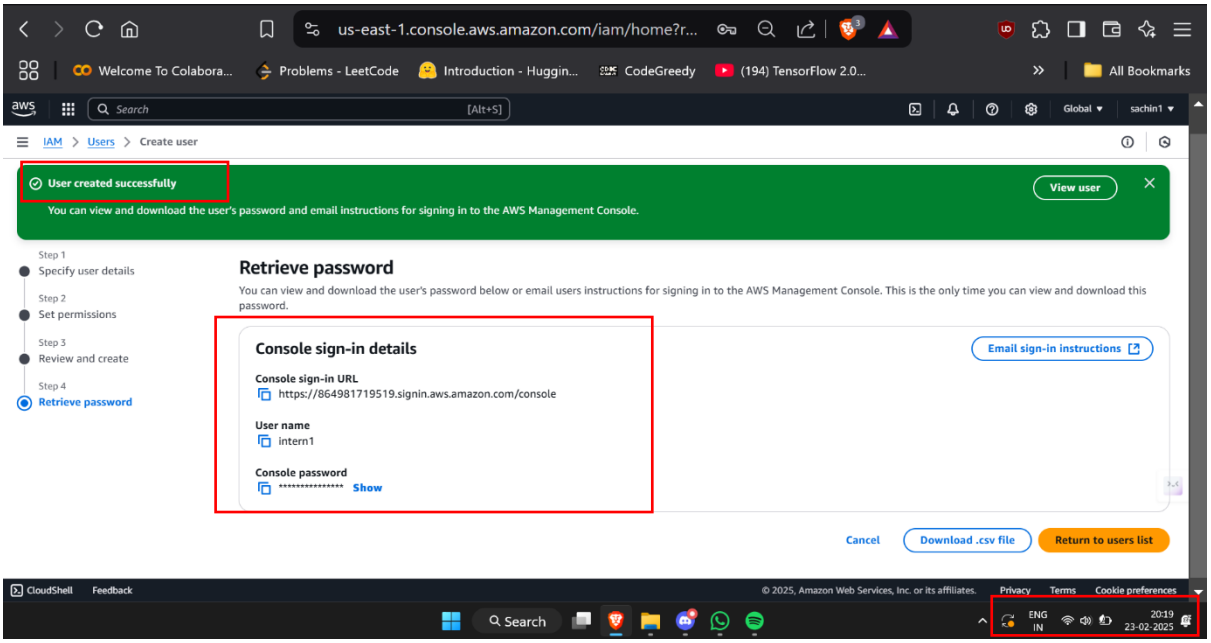
L2

Steps

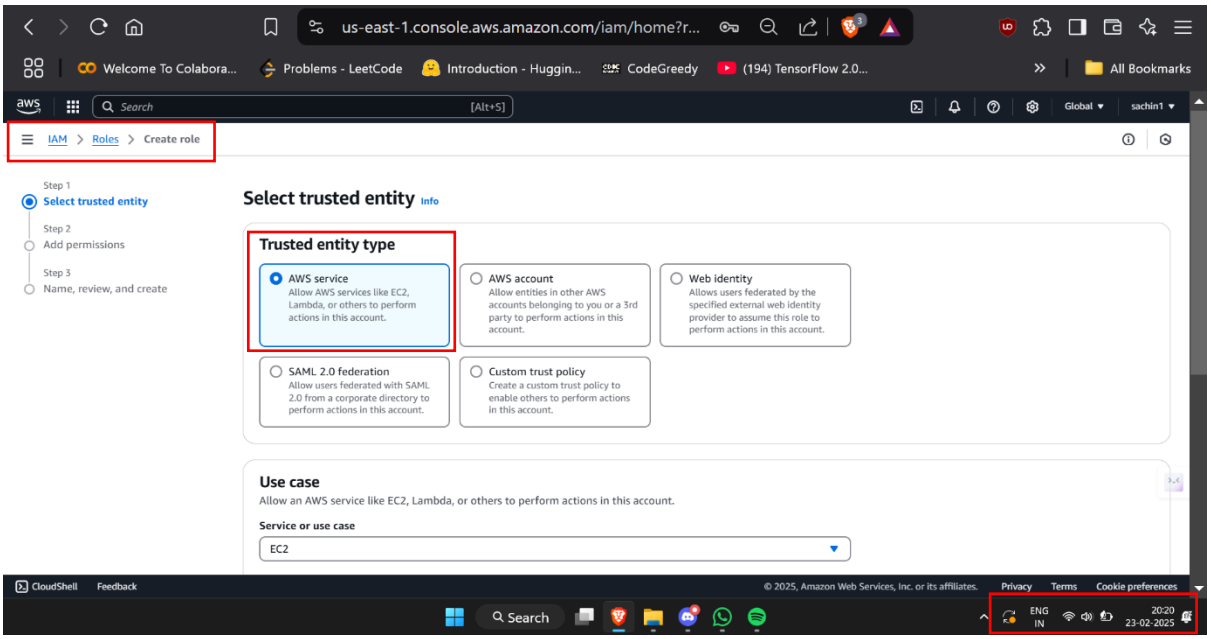
Step 1 : Navigate to IAM service then click users -> then create new user provide user name (here : intern1) check to give console access or not then set password either custom or autogenerated.



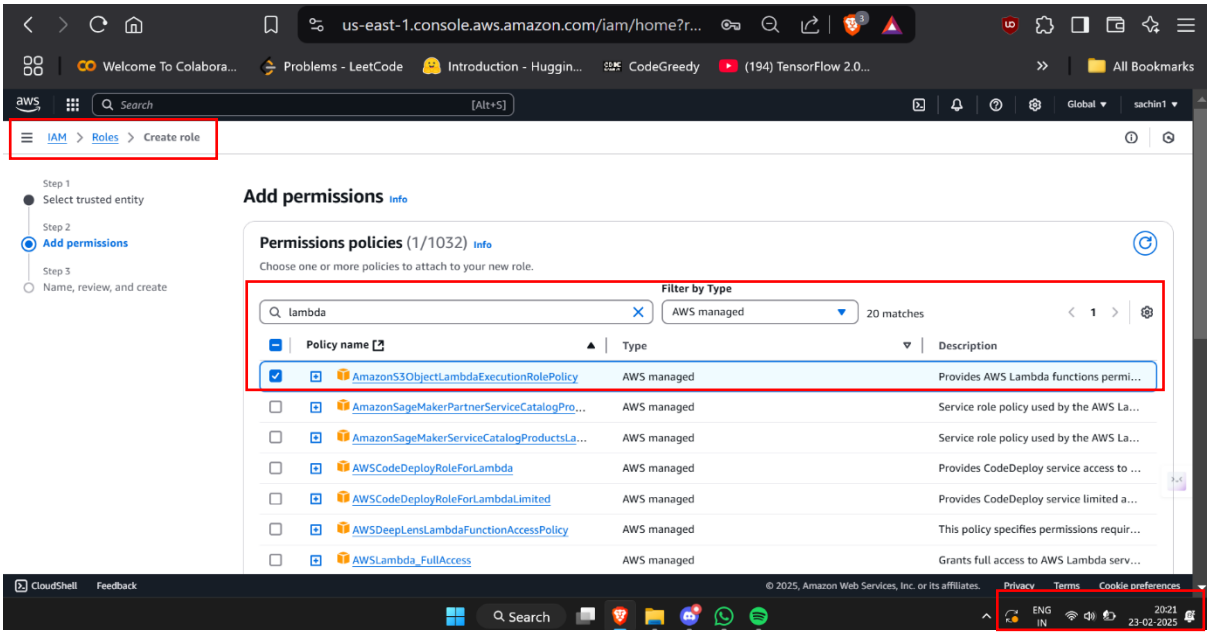
Step 2 : then enter the new user is created with user name and custom password



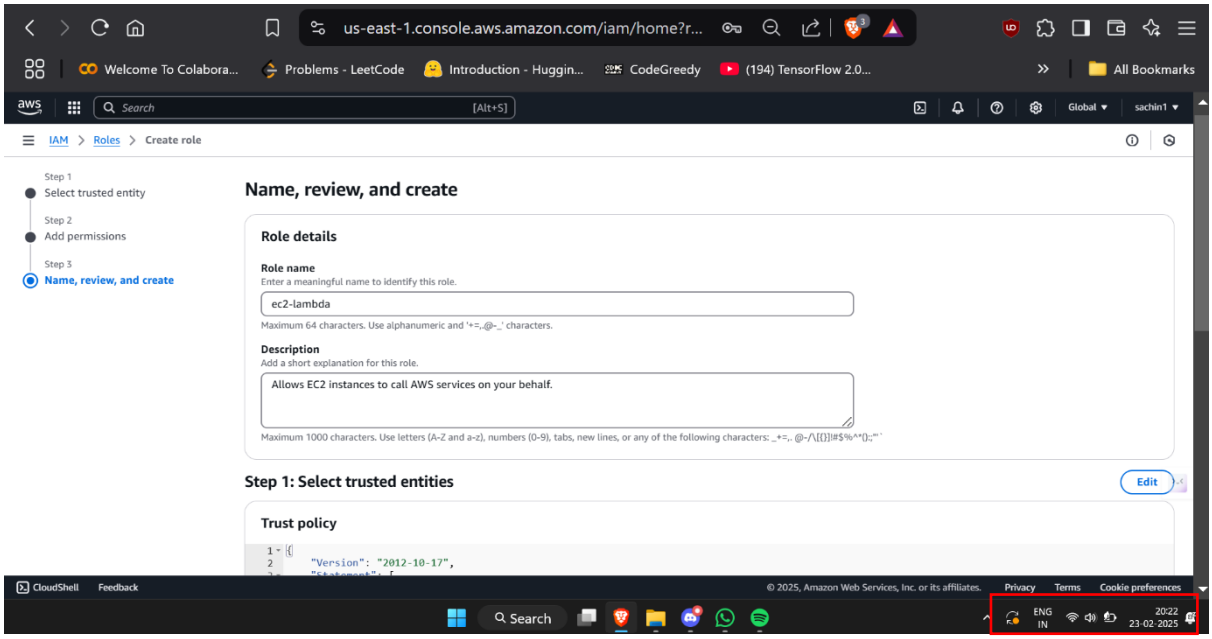
Step3 : navigate for Roles in IAM service select which type of roles should be given (here : I am giving two aws services ec2 and lambda).We can also provide role to an user to access the other account



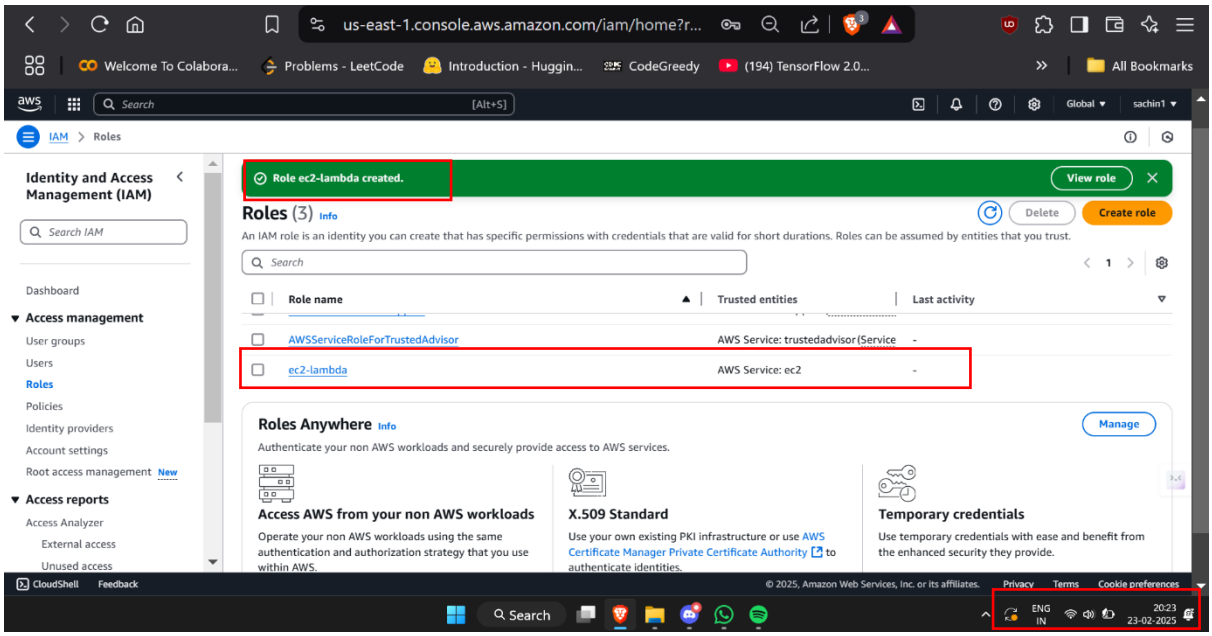
Step 4 : select the kind of policies to attach it with (here : I am providing s3 lambda access to ec2)



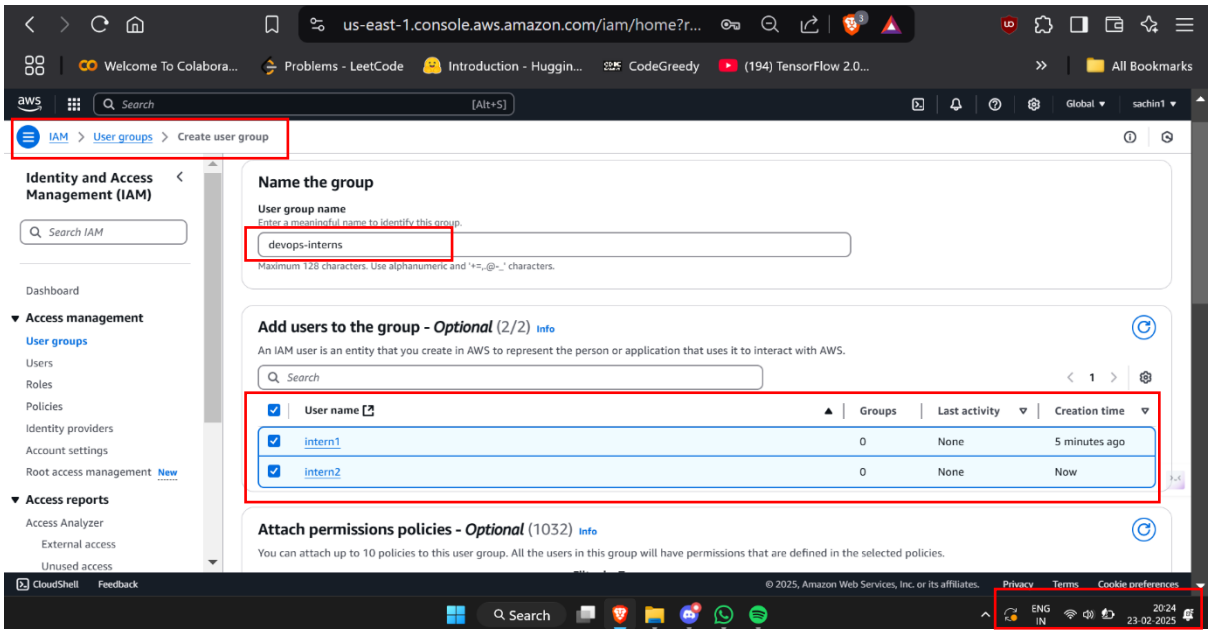
Step4 : Review the details again then proceed



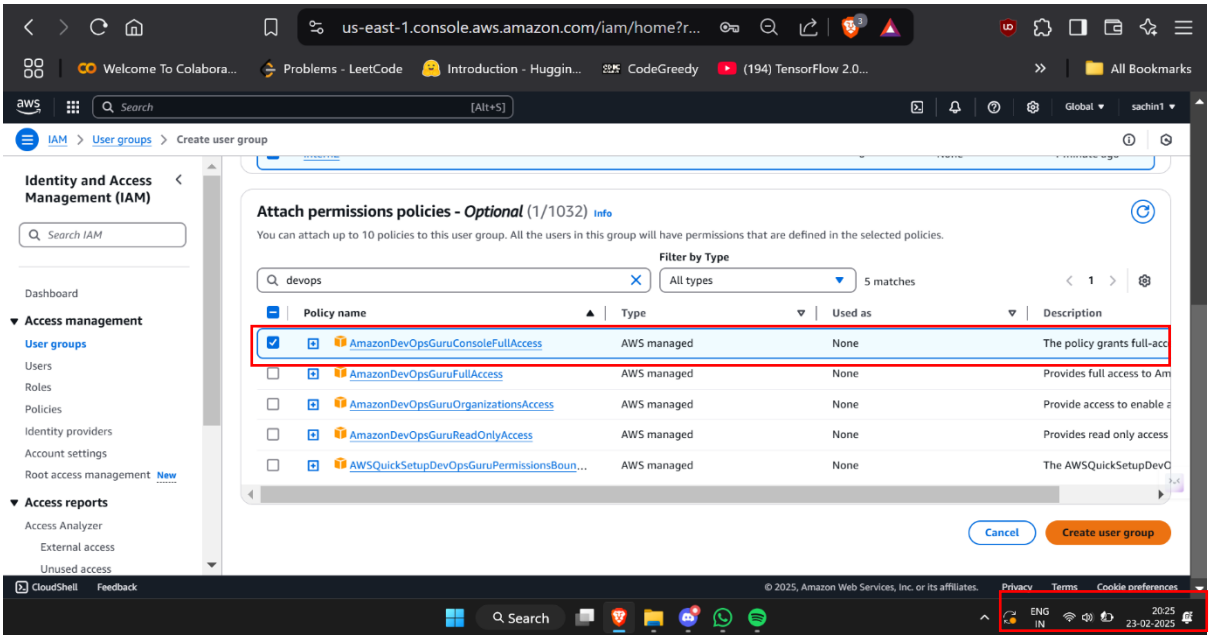
Step 5 : check the status if the role is created



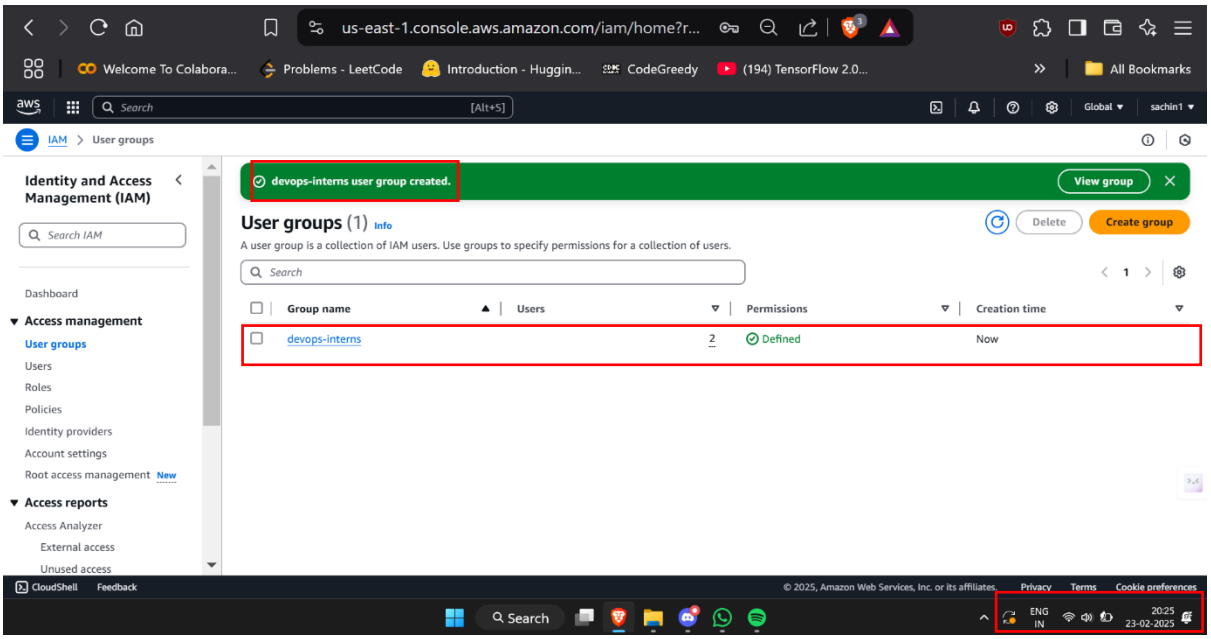
Step 6 : navigate for user groups in IAM service then provide name of the group and select the users to be part of that group from the existing list of users that are created (here : I have created group of devops interns for intern 1 and intern2)



step 6 : Attach the policies nothing but permission which the group members will have it will be applicable to all the users under that .



step7: Users group are created (here : devops-intern)



Module name : AWS cloud

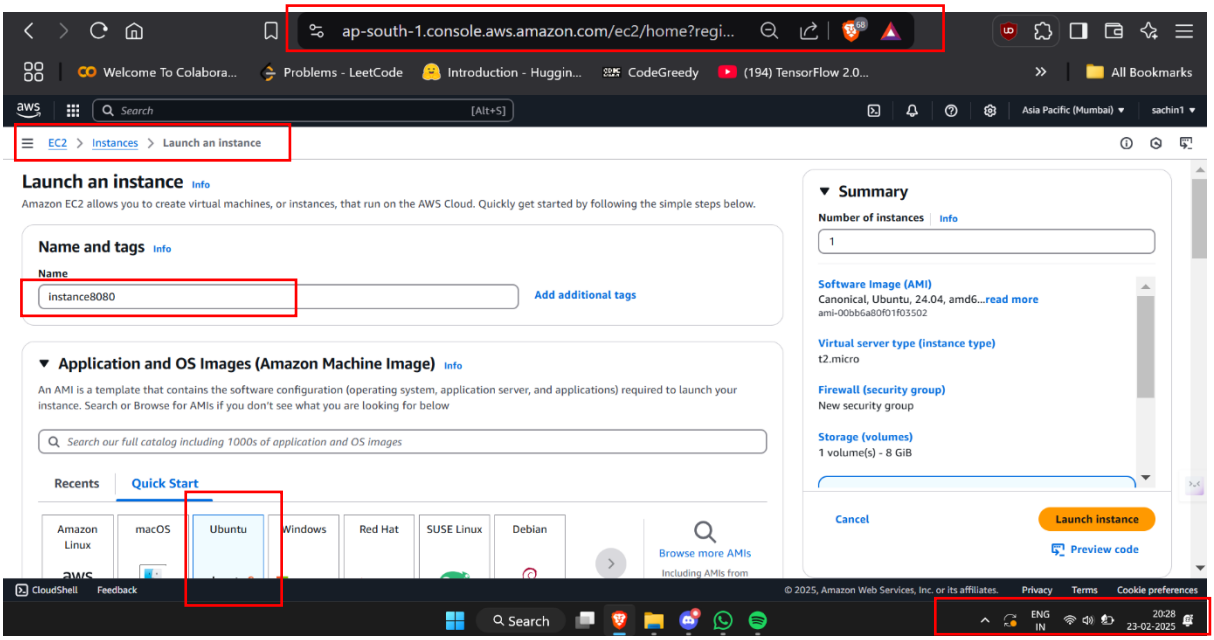
Assignment name : L3 - Launch AWS EC2 Ubuntu Instance and configure the Security Group - Inbound Rule: 8080. Justify the usage of Inbound Rules

Submitted by : Sachin V Bacha

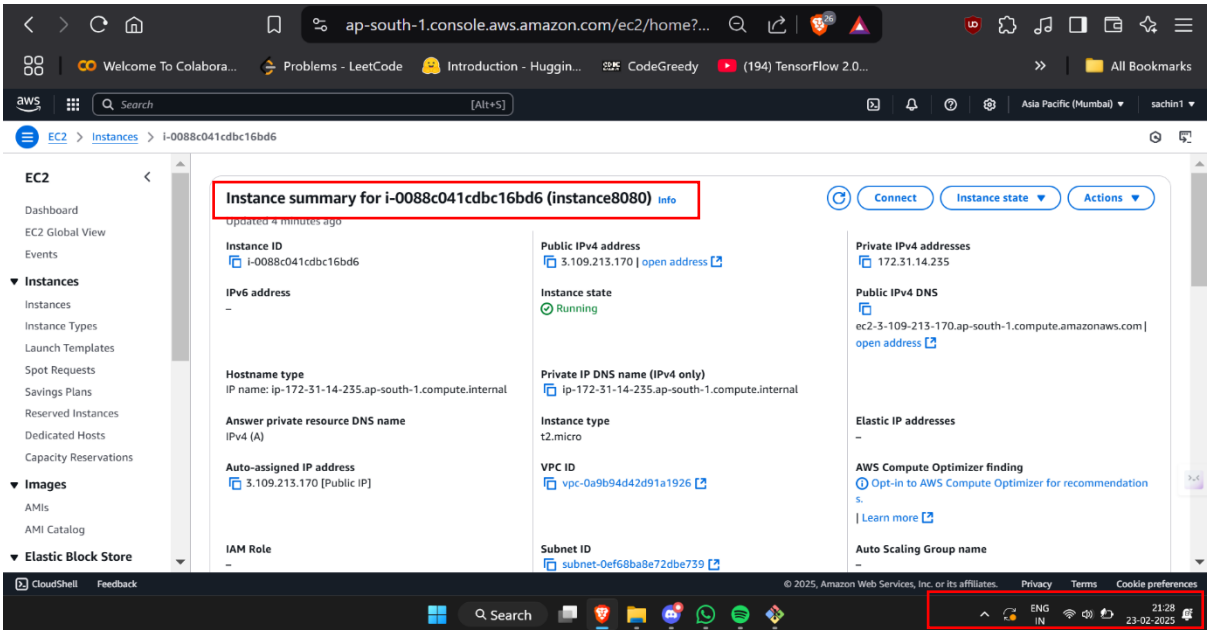
Submitted on : 06-03-2025

L3

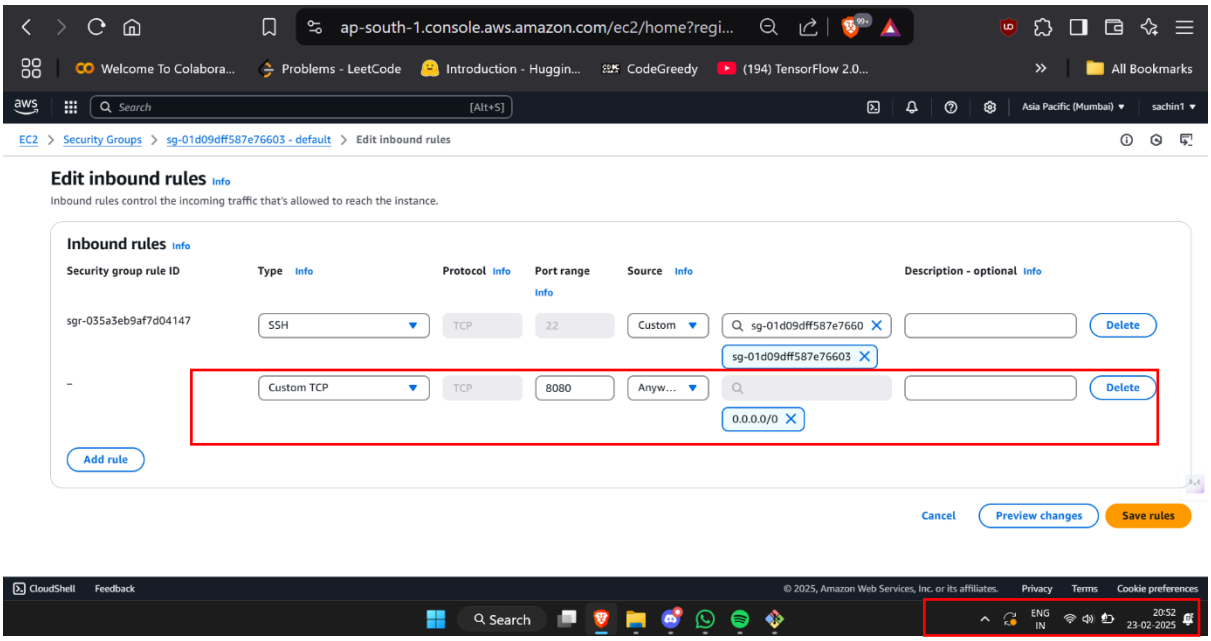
step 1 : Navigate to ec2 service in aws then create a new instance (here : with name : instance8080 and select ubuntu instance)



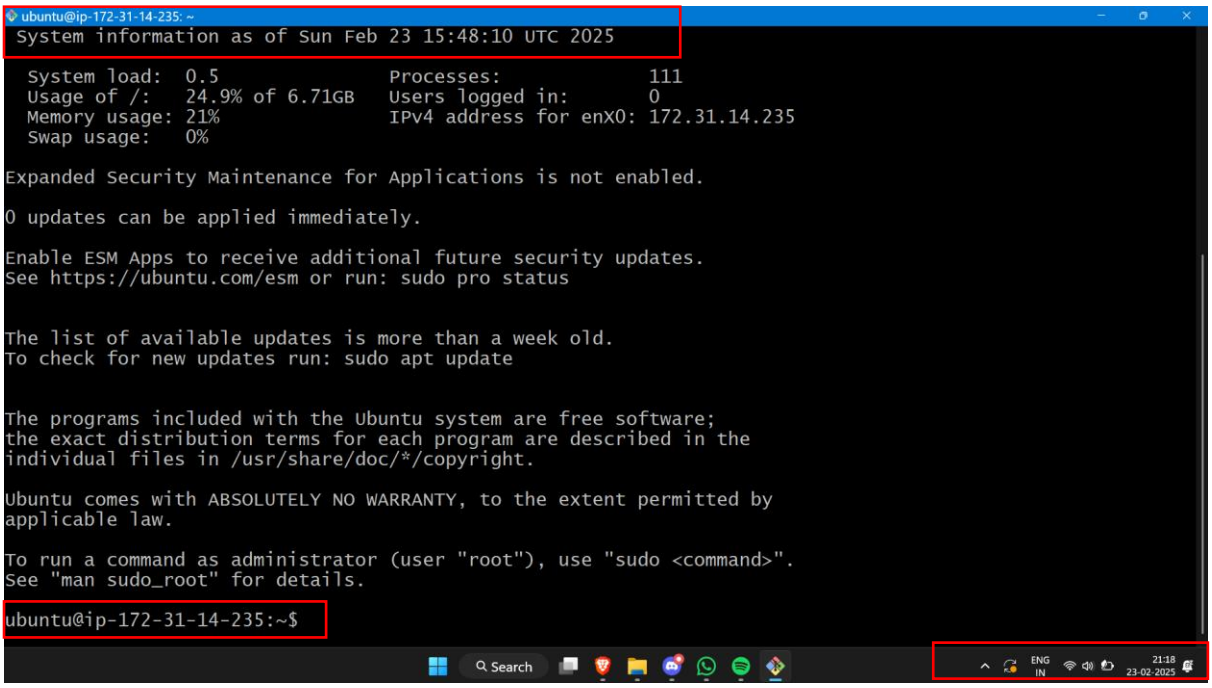
step 2 : Check the summary of the launched instance



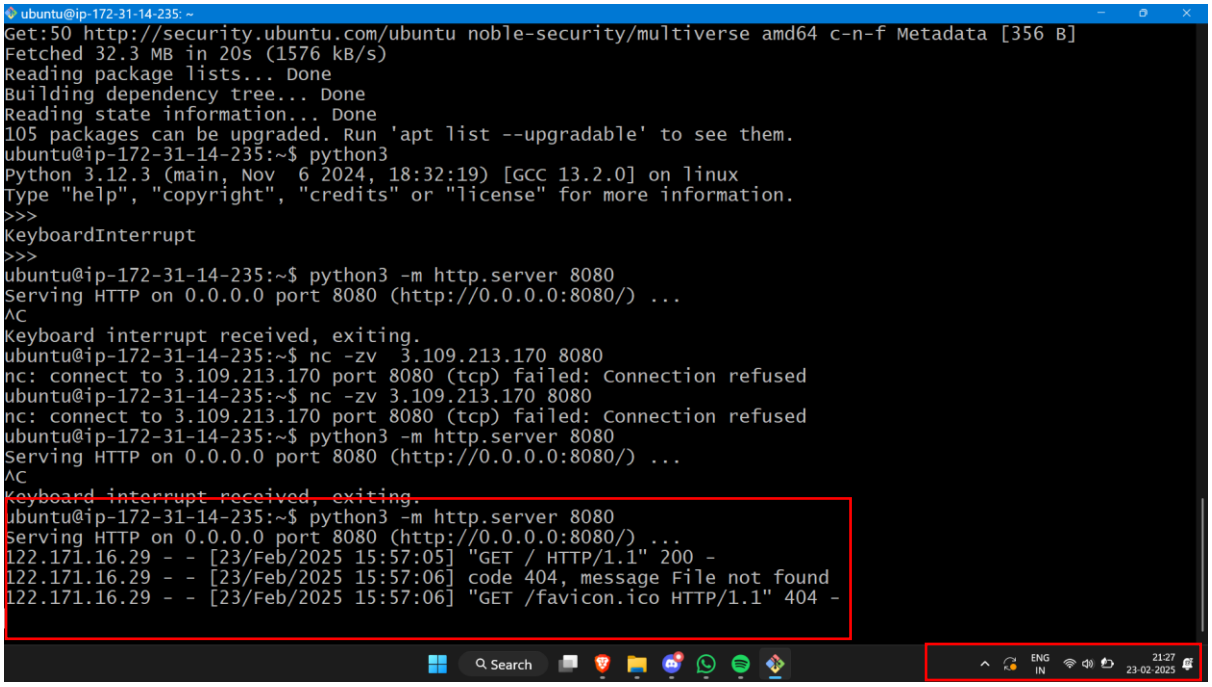
step 3 : Edit the inbound rules for custom tcp with 8080 port number



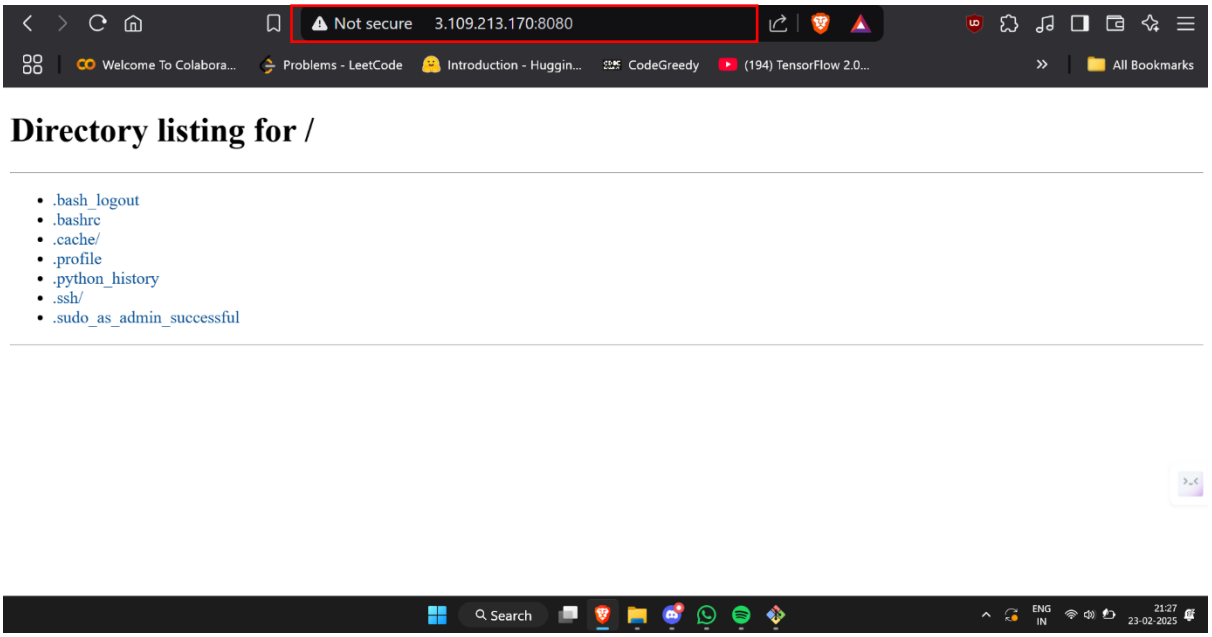
step 4 : connect the ec2 instance with the ssh (here : I have connected it through git bash)



step 5 : start a simple python server with the 8080 port



step 6 : now access the page in the browser with public ip with the port 8080



Module name : AWS cloud

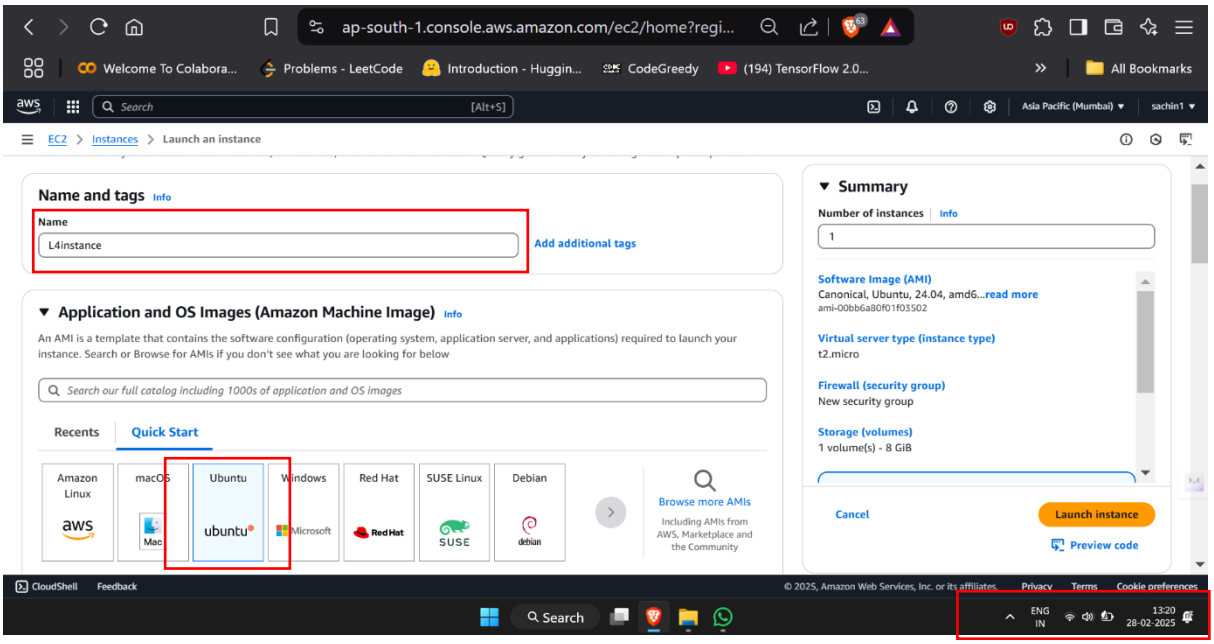
Assignment name : L4 - Connect to the AWS EC2 Ubuntu Instance and Update default packages, install JDK, Maven, Git, and validate the versions

Submitted by : Sachin V Bacha

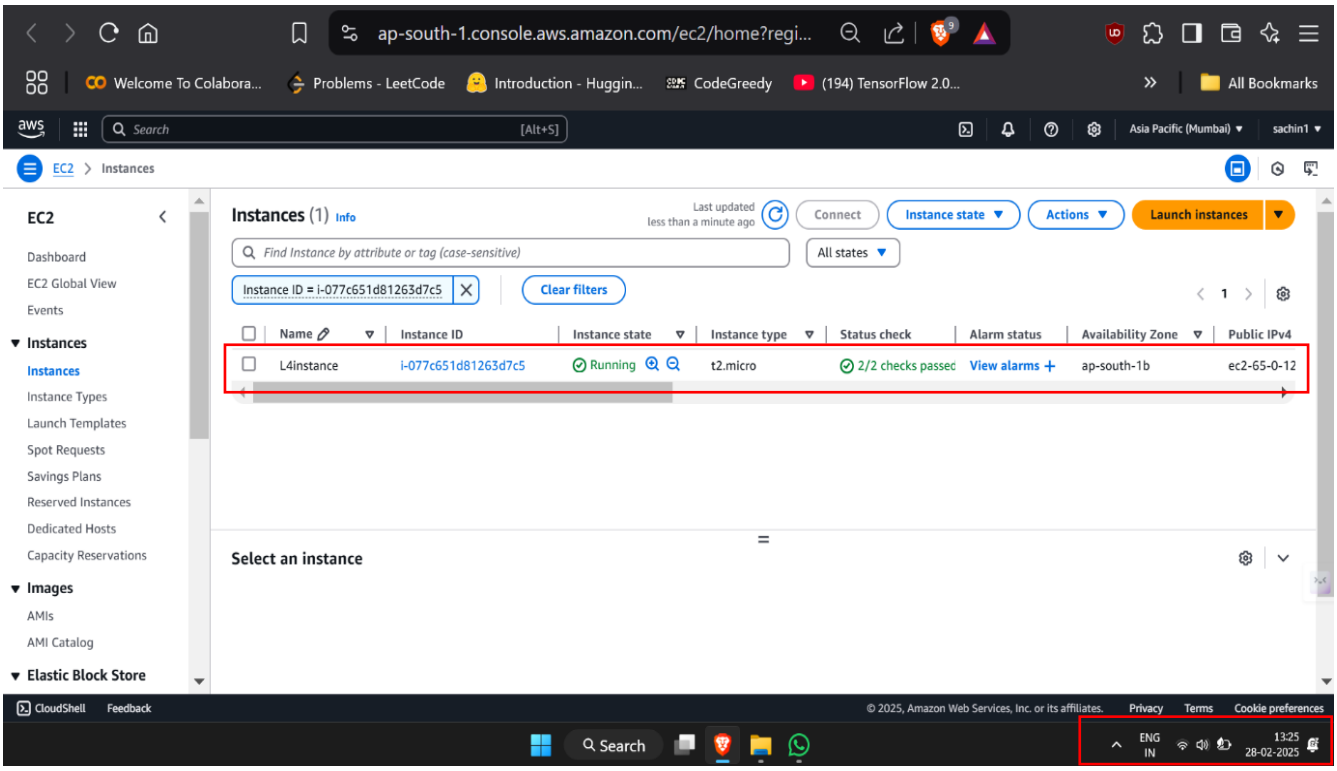
Submitted on : 06-03-2025

L4

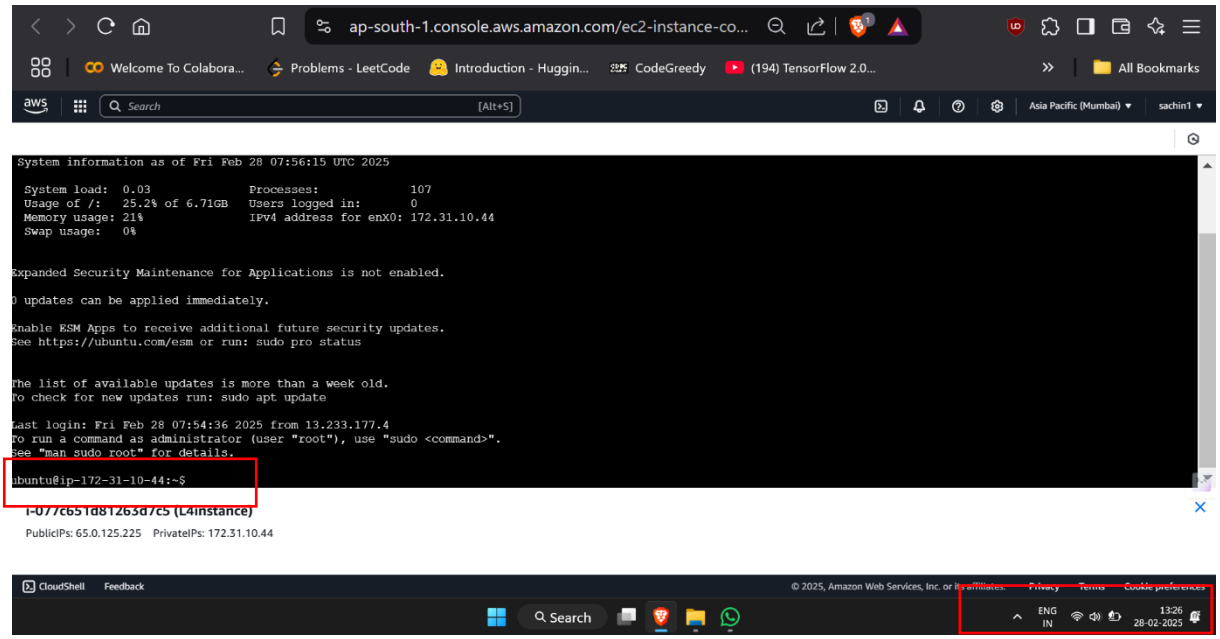
Step 1 : create an ec2 instance with ubuntu image (here : with name : L4 instance and ubuntu image)



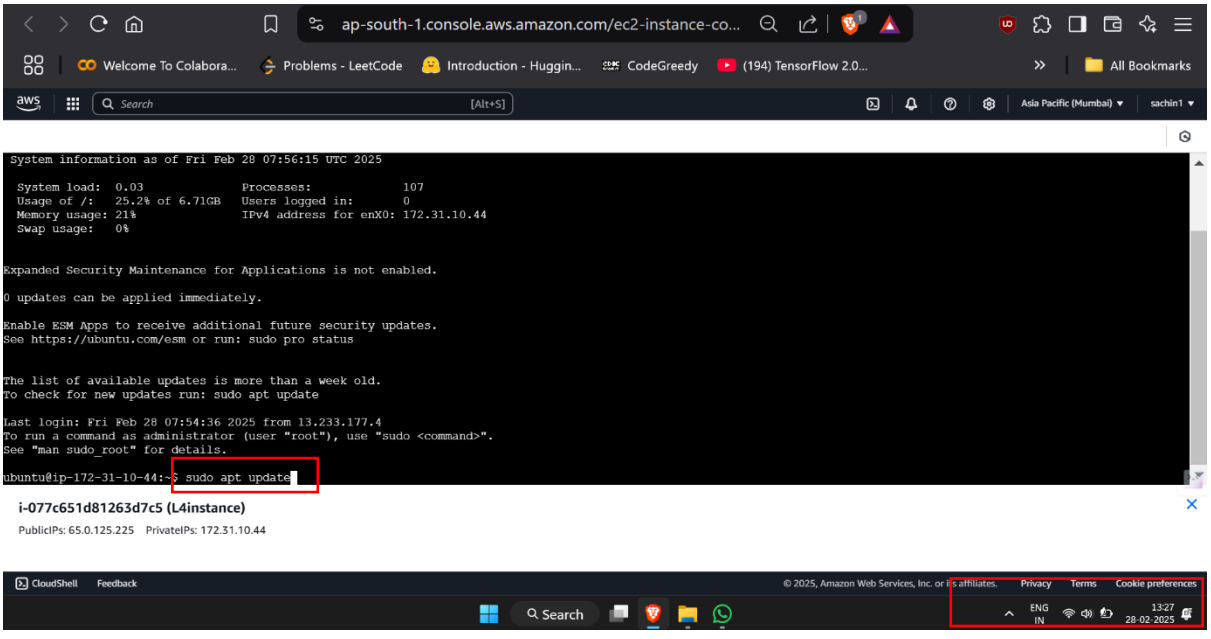
step 2 : check the dashboard to navigate to the created instance



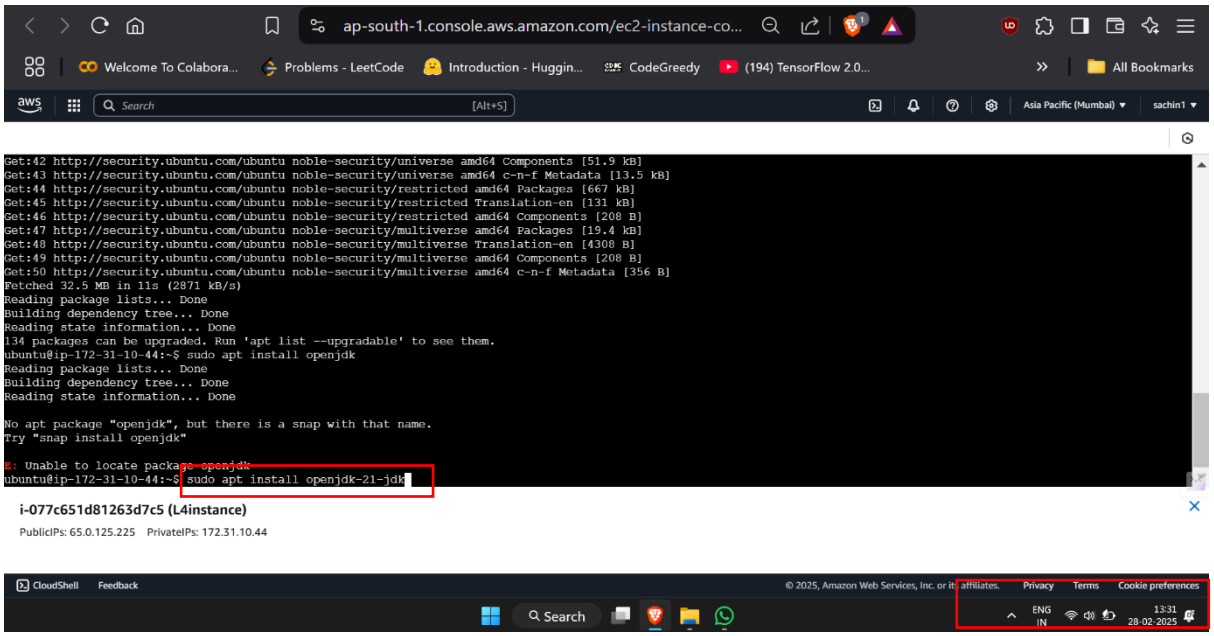
step 3: Connect to the created instance



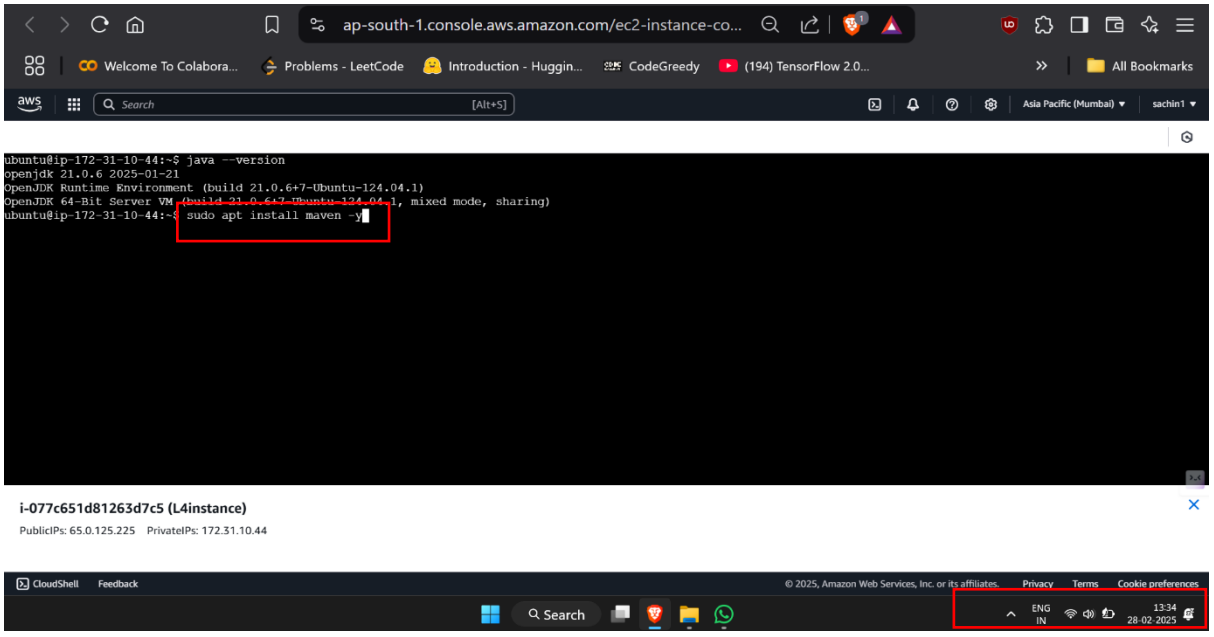
step 4 : update the packages using command “sudo apt update”



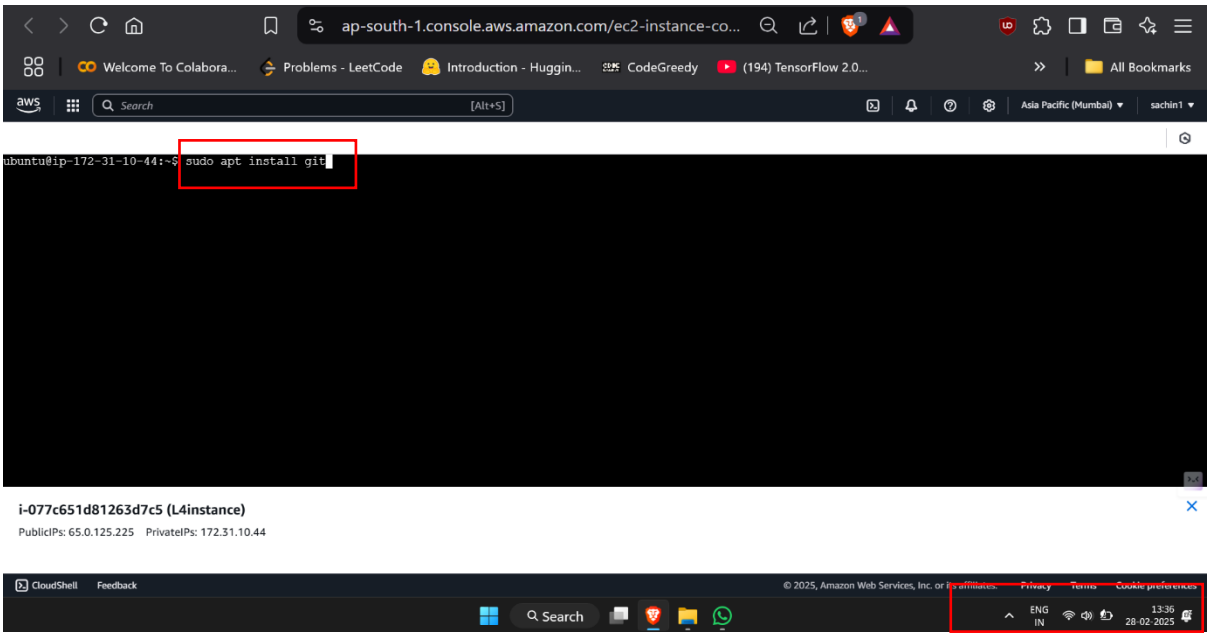
step 5 : install the java package using command “sudo install openjdk-21-jdk”



step 6:install maven using command “sudo install maven”



step 7 : install git using command “sudo install git”

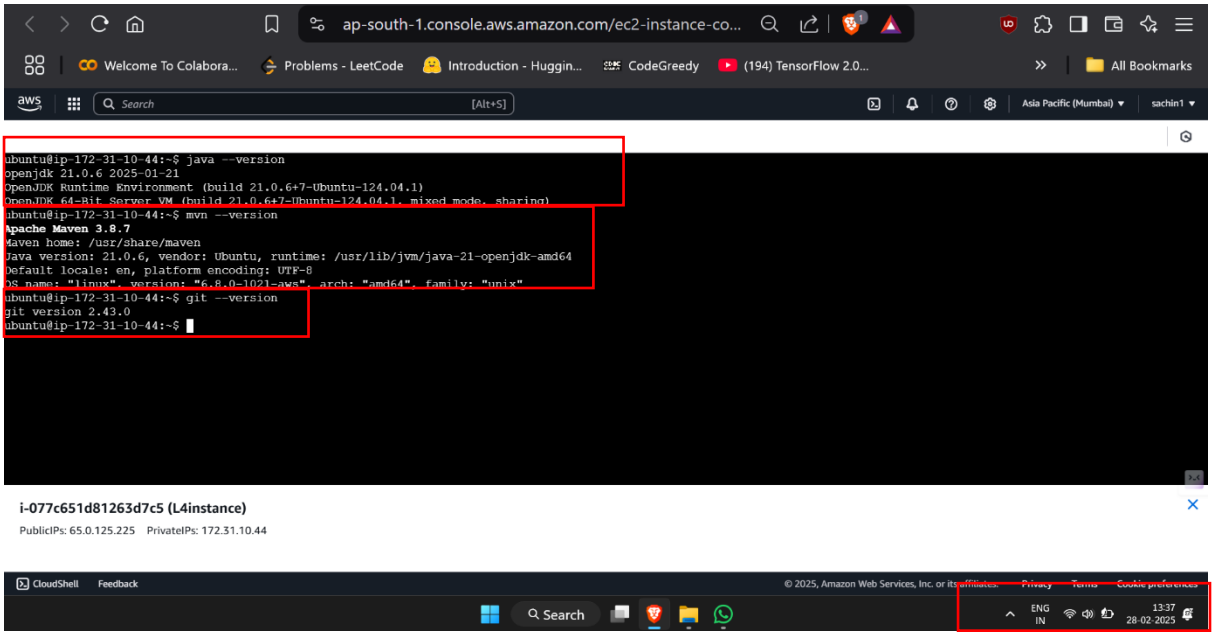


Step 8 : check all the installed packages using

a) Java –version

b) Mvn –version

c) Git –version



Module name : AWS cloud

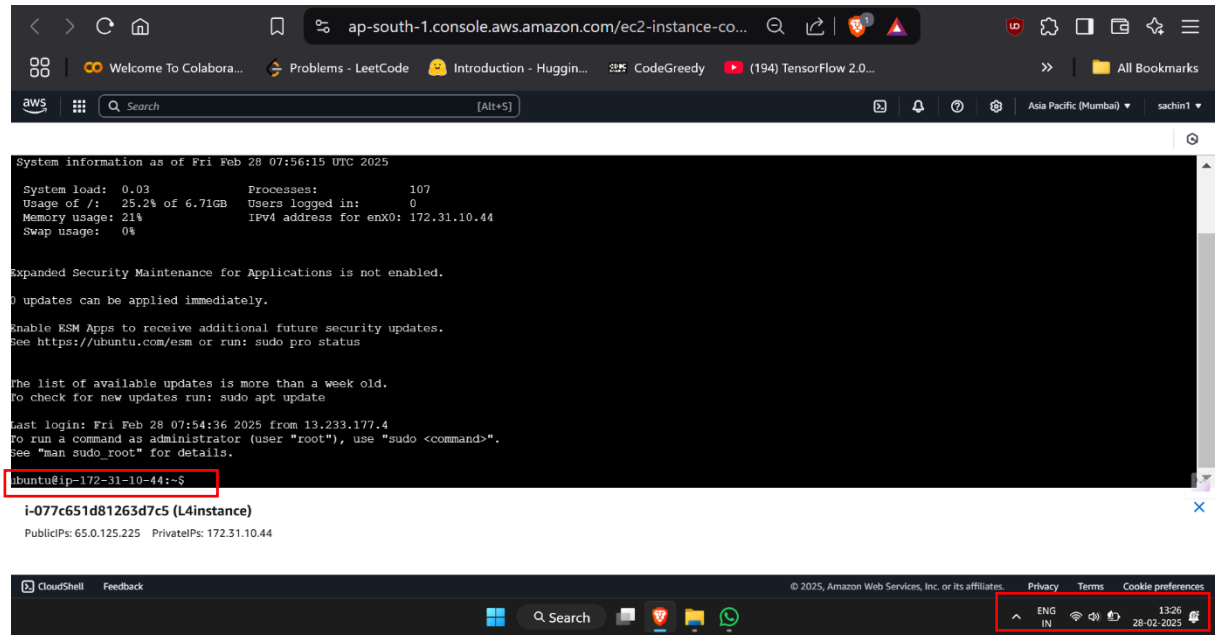
Assignment name : L5 - Install Tomcat web application server in AWS EC2 Ubuntu Instance and access Tomcat using a web browser

Submitted by : Sachin V Bacha

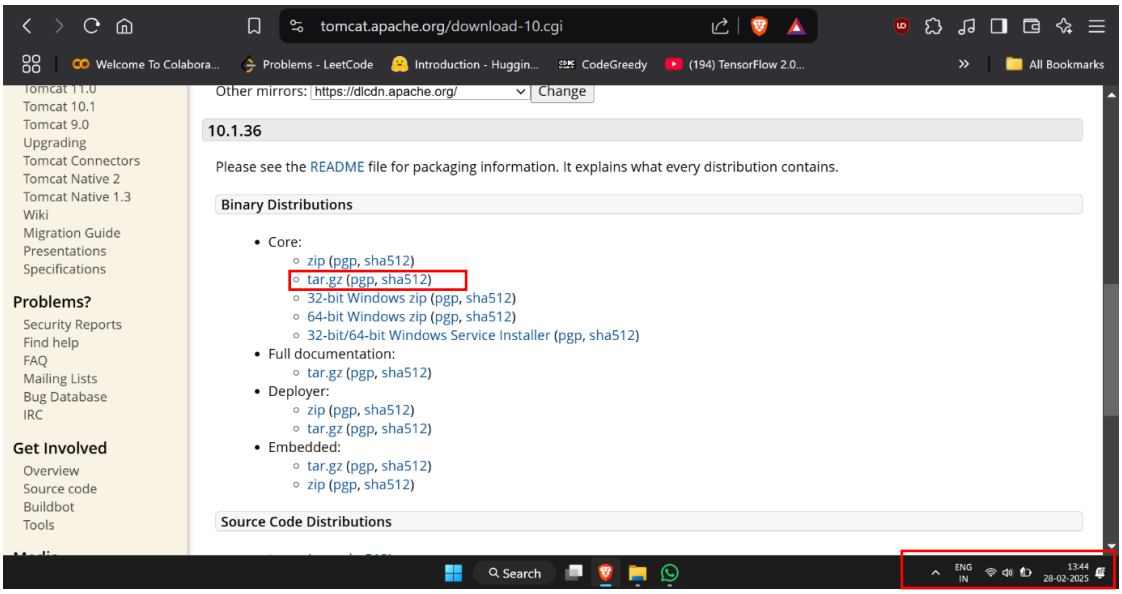
Submitted on : 06-03-2025

L5

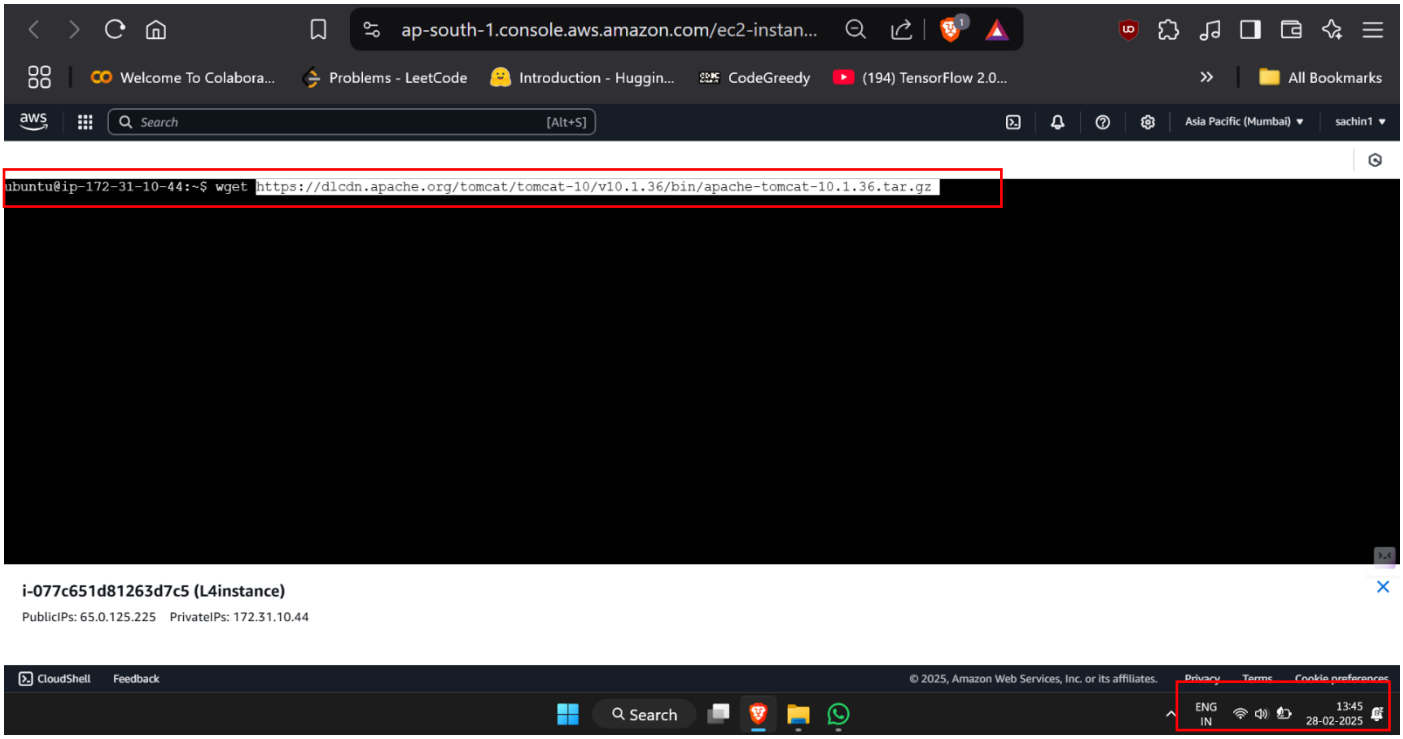
step 1 : connect to an ec2 instance (here : I am using the existing instance used for L4)



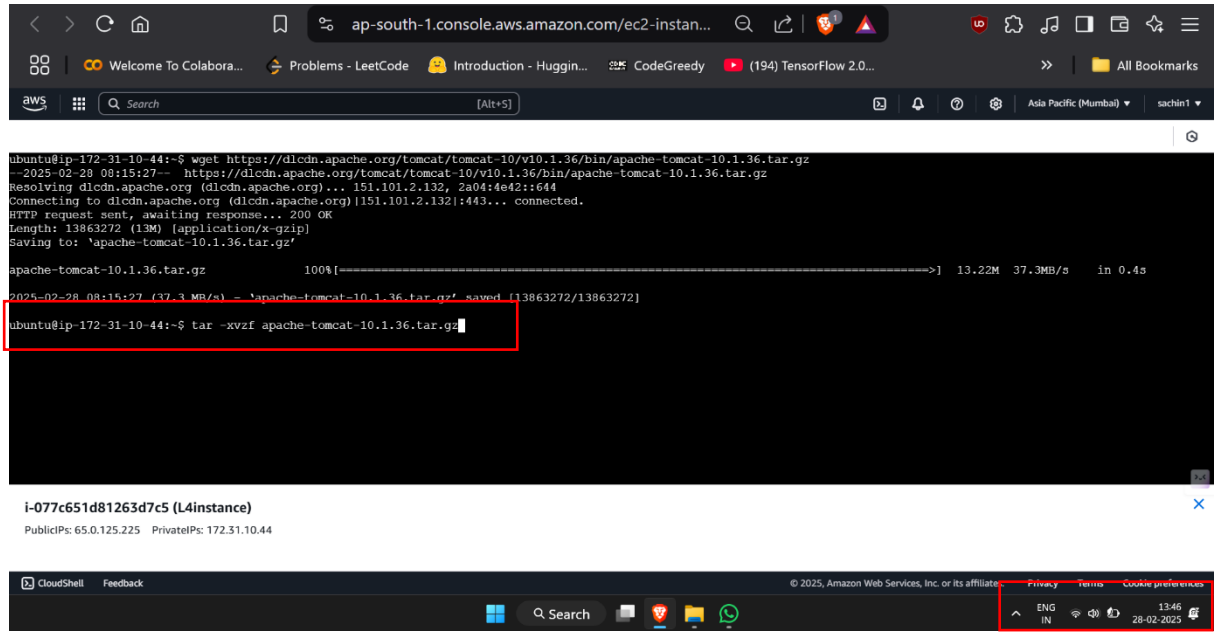
step 2 : Go to the tomcat official documentation for downloading the package then copy the link address of tar.gz



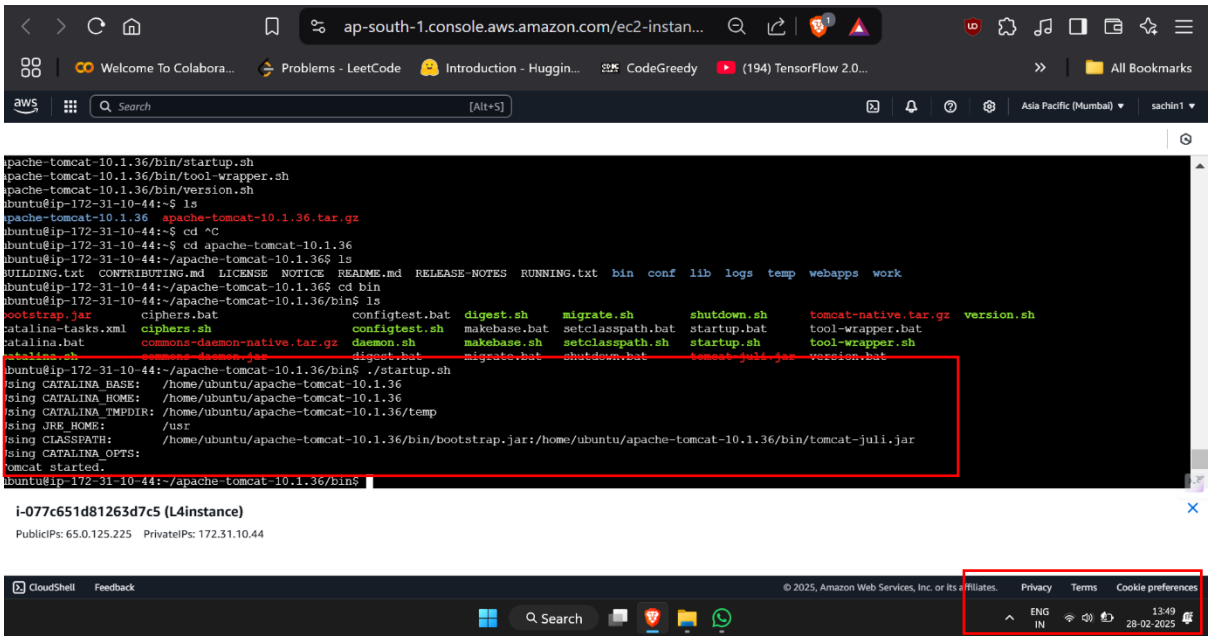
step 3 : now run the command “wget + the copied link” inorder to st



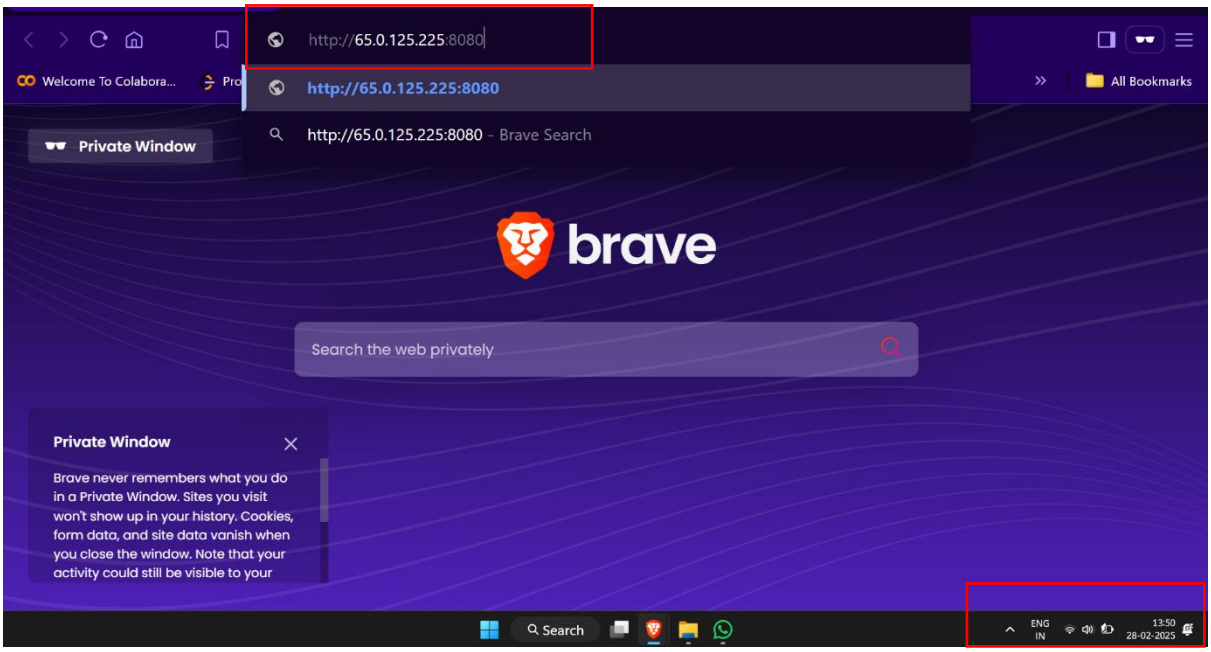
step 4 : now use command “tar -xvzf apache-tomcat-10.1.36.tar.gz” to unzip the package



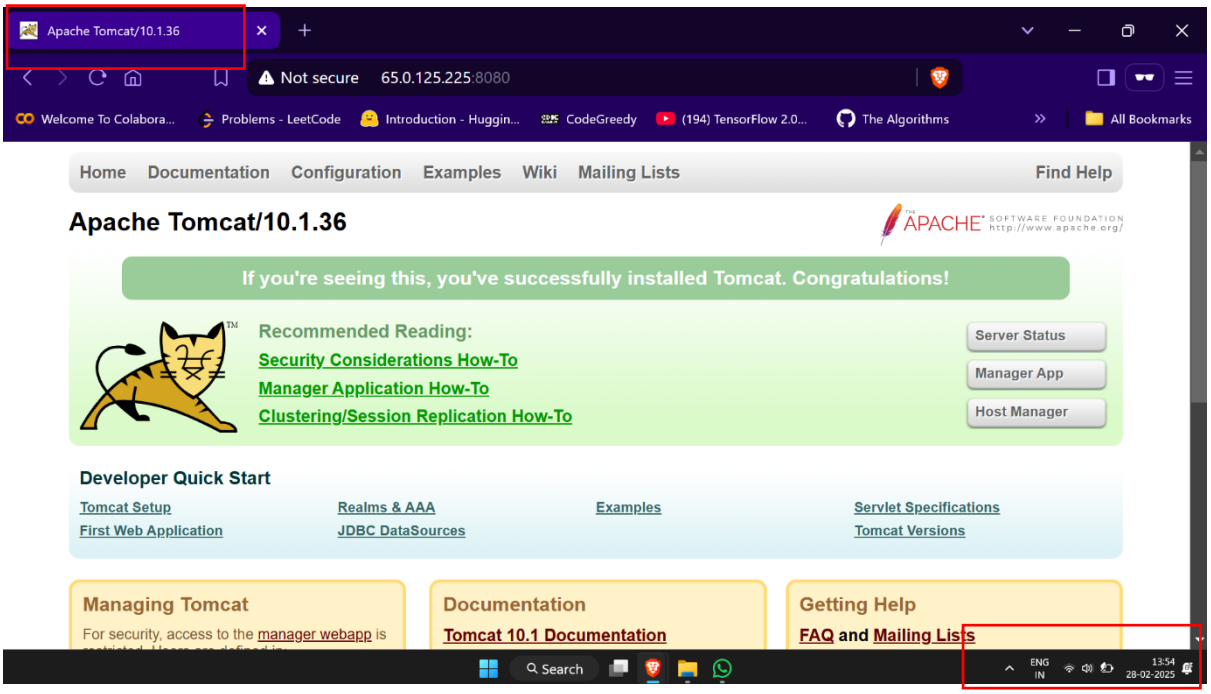
step5: now check the files using “ls” command -> now get into unzipped file using “cd” command -> now get into bin folder using “cd” command -> then run the script inside the startup.sh file using command “./startup.sh” -> now the tomcat is initialized.



step6 : Now run the server in local browser using public ip with the tomcat port i.e 8080



step7: now we can see the tomcat server running



Module name : AWS cloud

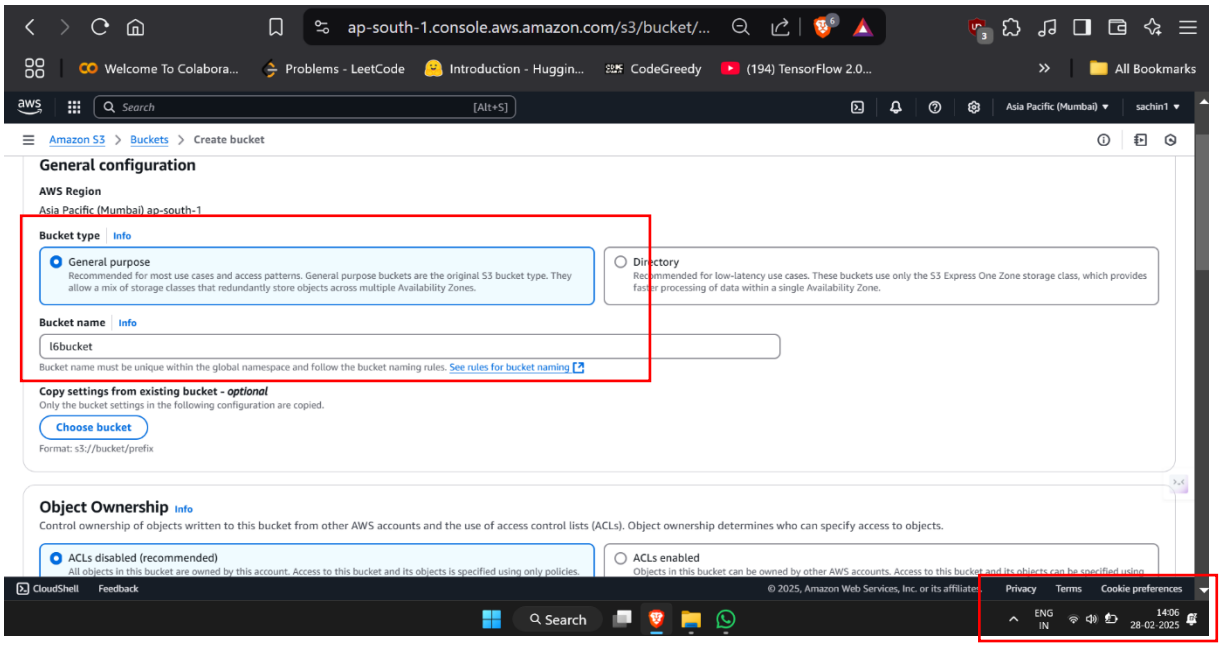
Assignment name : L6 - Create S3 Bucket and add folders and files

Submitted by : Sachin V Bacha

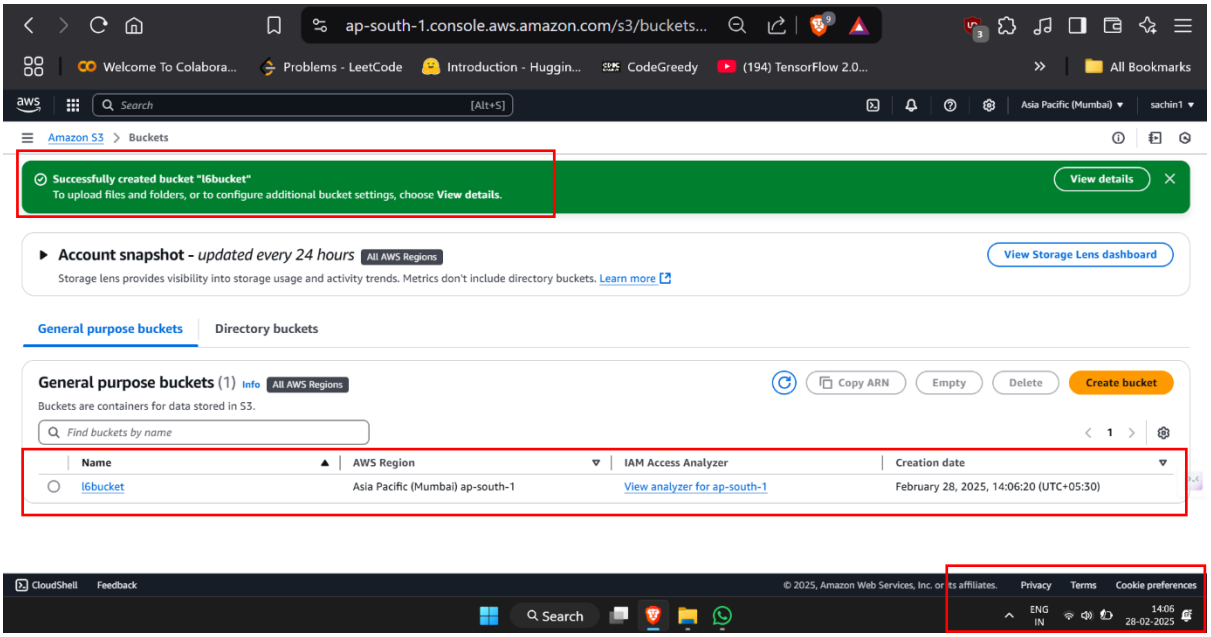
Submitted on : 06-03-2025

L6

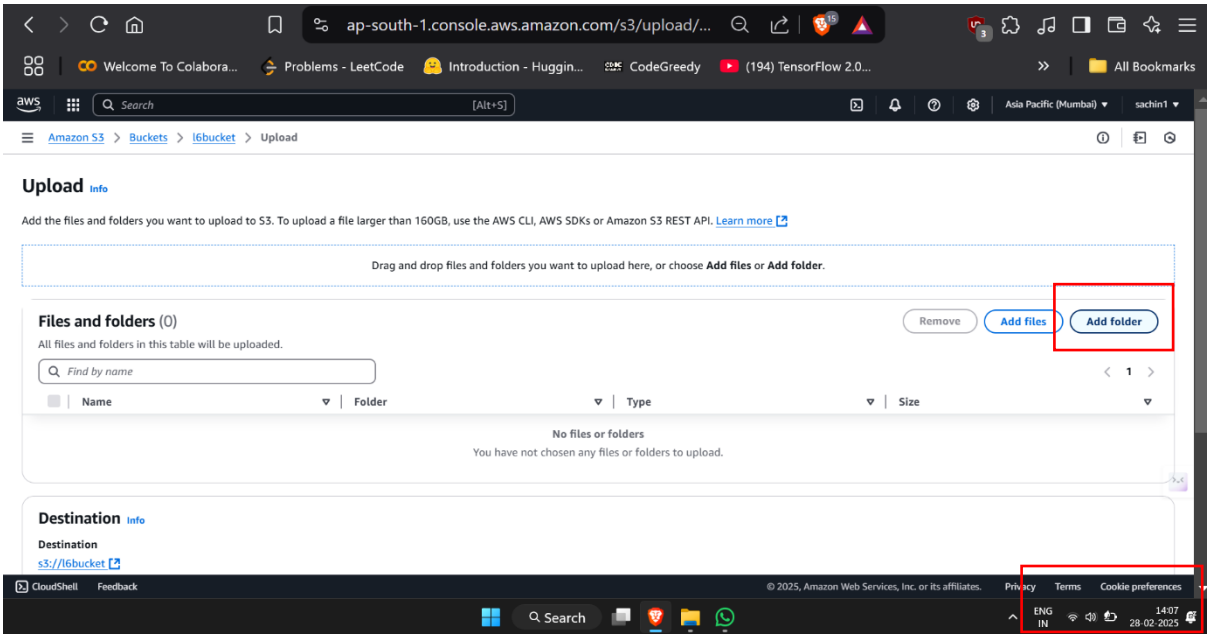
Step1 :Navigate for s3 service in aws -> then click buckets -> create new bucket -> select the bucket type -> and give bucket name



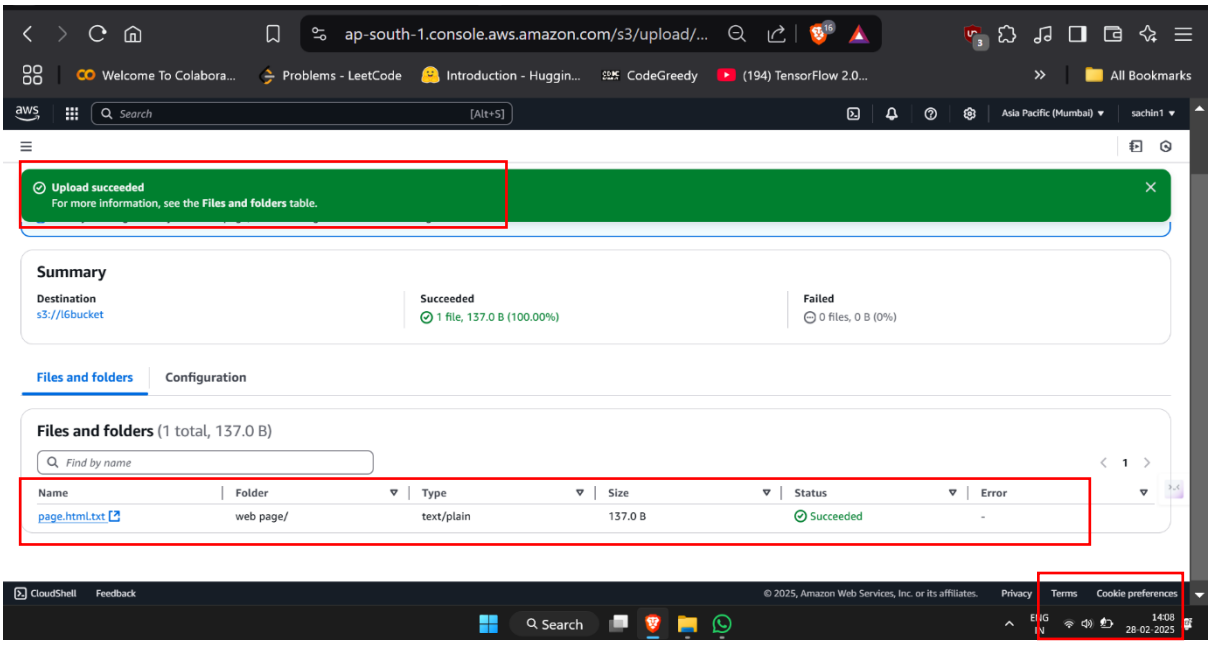
step 2 : go to dashboard to check the bucket created (here l6bucket)



step 3 : click on the created bucket -> then click add folder



step4: upload the folder from local computer (here folder with name webpage contain a file named page.html.txt in it)



step5 : check the folder is it uploaded