ASSIGNMENT 3: Configuring Security policies and login to that server using SSH

STEP 1: After creating EC2 instance connect in terminal using command

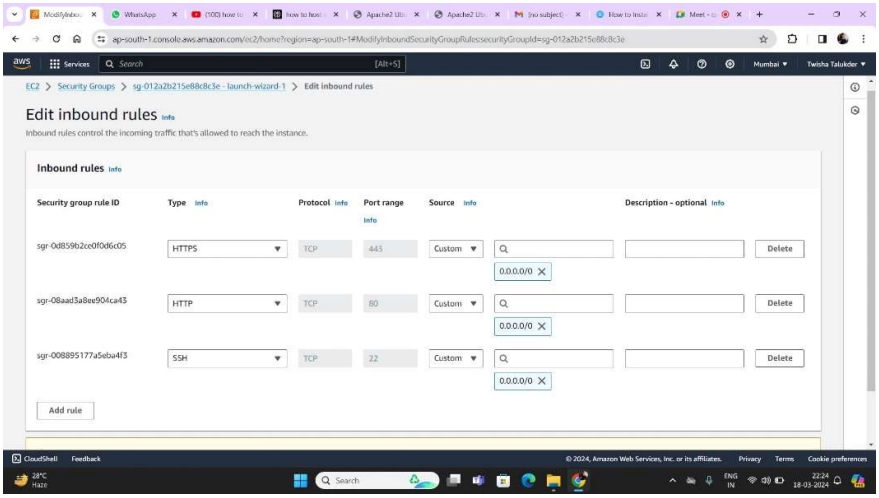
- ssh -I"pem file name"ubuntu@ec2-13-233-70-14.ap.south-1.compute.amazonaws.com

STEP 2 : Now, install apache2 using command - " sudo apt update "

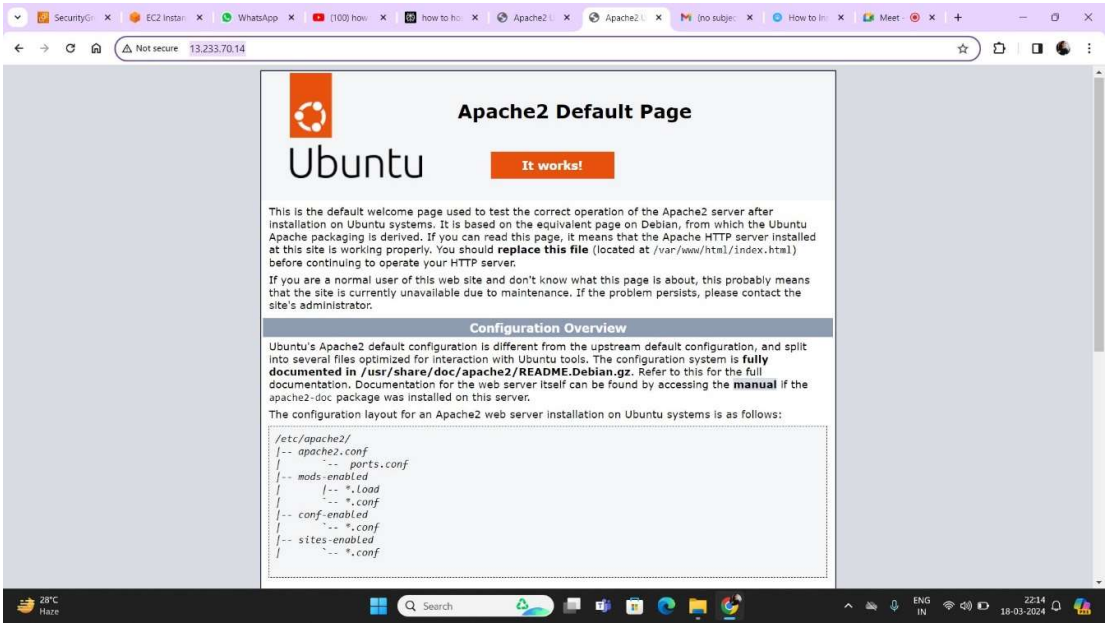
and then install apche2 server using command "sudo install apache2" .

STEP 3: The server is installed copy the public Ip address and paste it in browser ,an error will occur.

STEP 4: To fix this error we have to change the configuration policies by adding port HTTP 80 and HTTPS 143

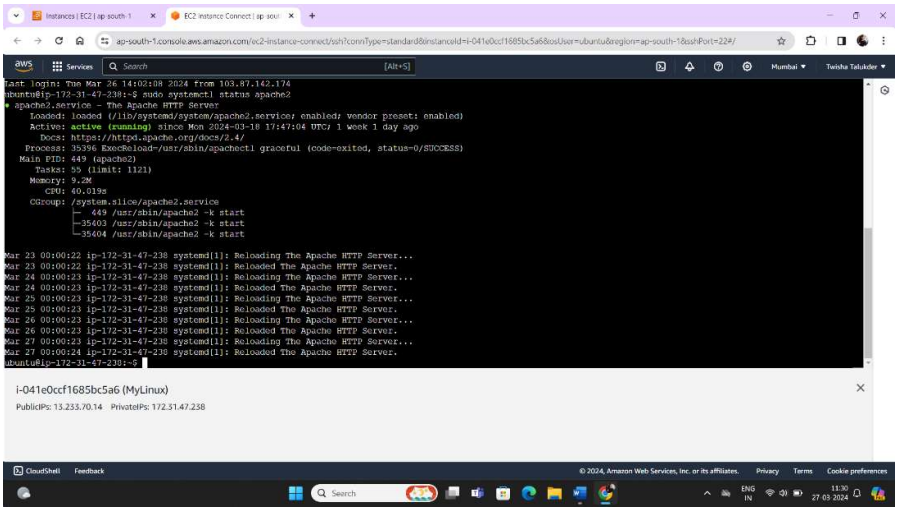


STEP 5: After changing the security policies, we can the default web page.



ASSIGNMENT 4: Host your own web page in that Server

STEP 1 : Run the Apache2 server using command “sudo systemctl status apache2”. A message will come showing Apache2 server is running.

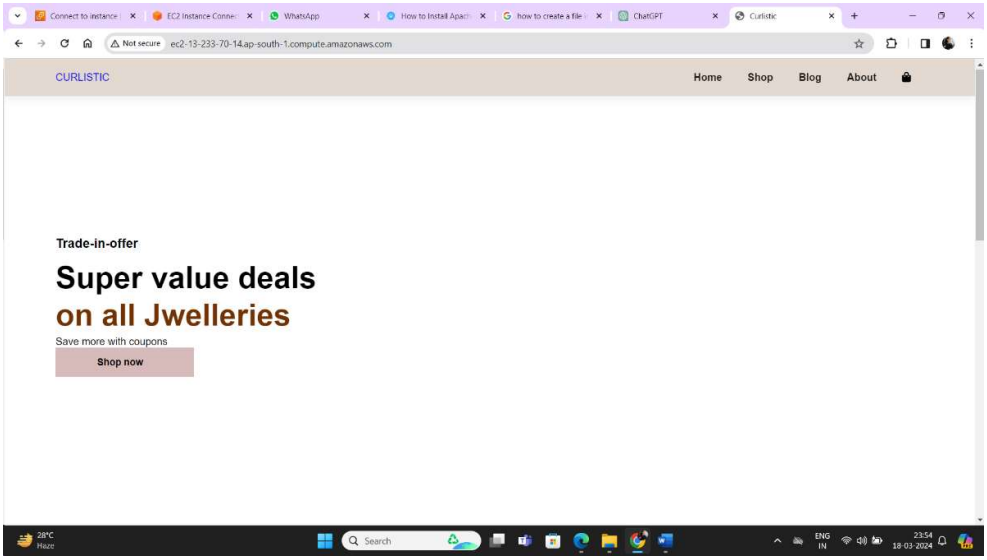


STEP 2: Now connect the instance using terminal. For Apache2 the default document root is /var/www/html.

STEP 3: Edit the .html file using vim or any kind of editor using command “ sudo vim index.html”

STEP 4: Edit the .html file according to your needs, you can add .css file as well.

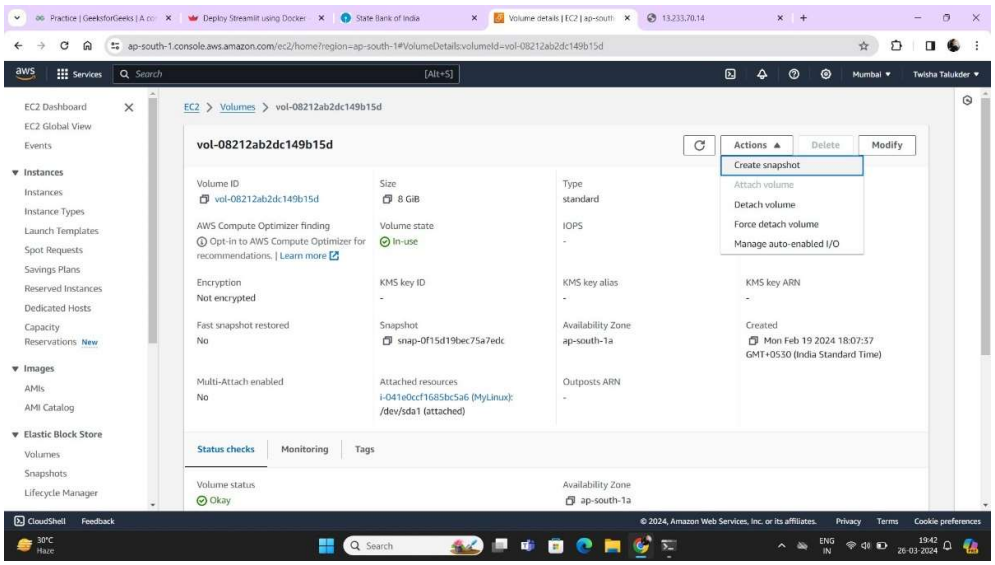
STEP 5: Now paste the Ip address in the browser in place of the default webpage, you can see your webpage hosted.



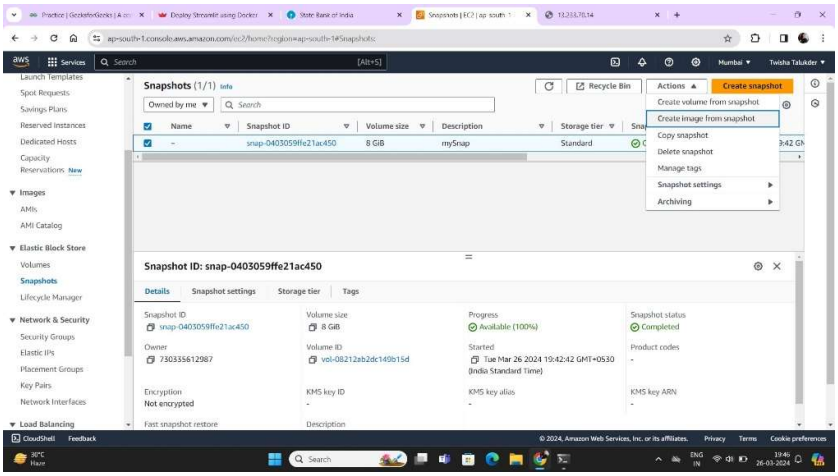
ASSIGNMENT 5: Create Image fron Snapshots and create another server with that.

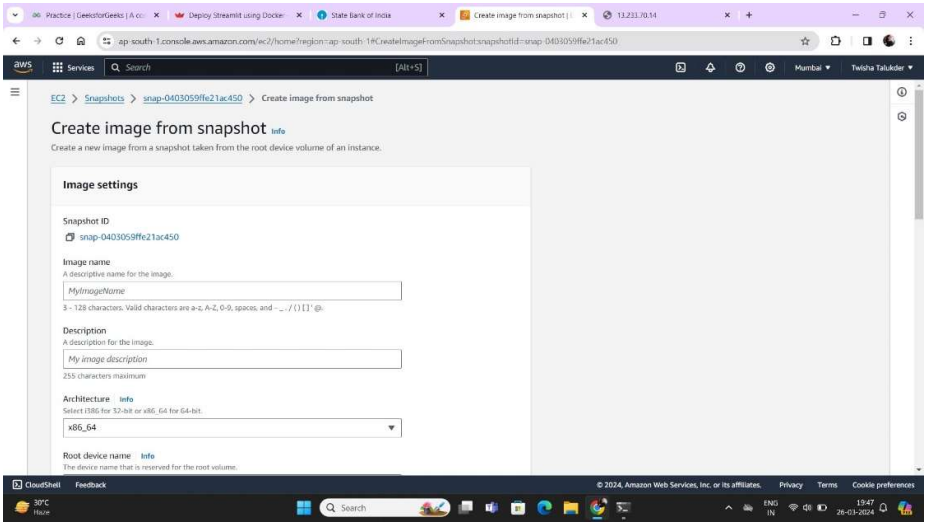
STEP 1: Log in to your AWS Management Console and Navigate to the EC2 Dashboard.

STEP 2: Click on "Snapshots" from the left-hand menu and Identify the snapshot you want to use for creating the image.



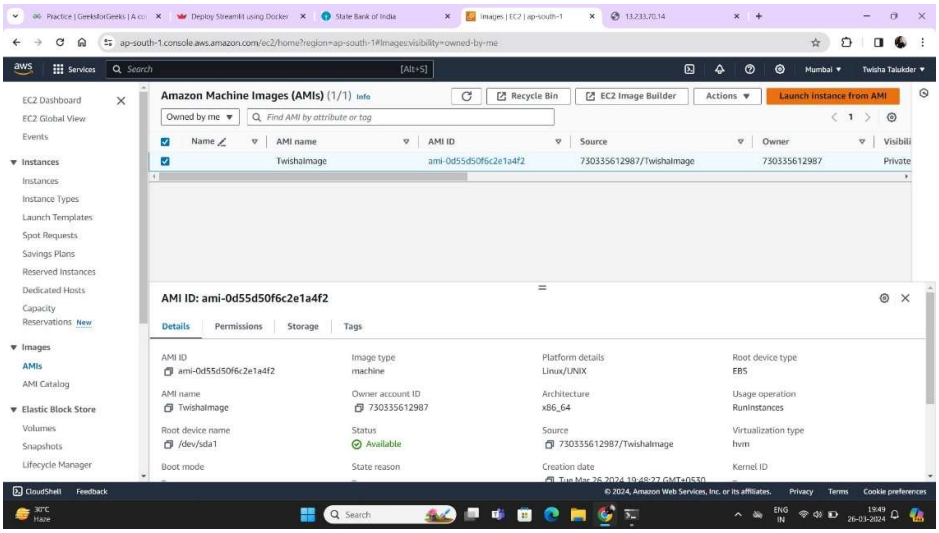
STEP 3: Select the snapshot and choose "Create Image" from the actions menu and Provide a name and description for the image and click "Create Image."



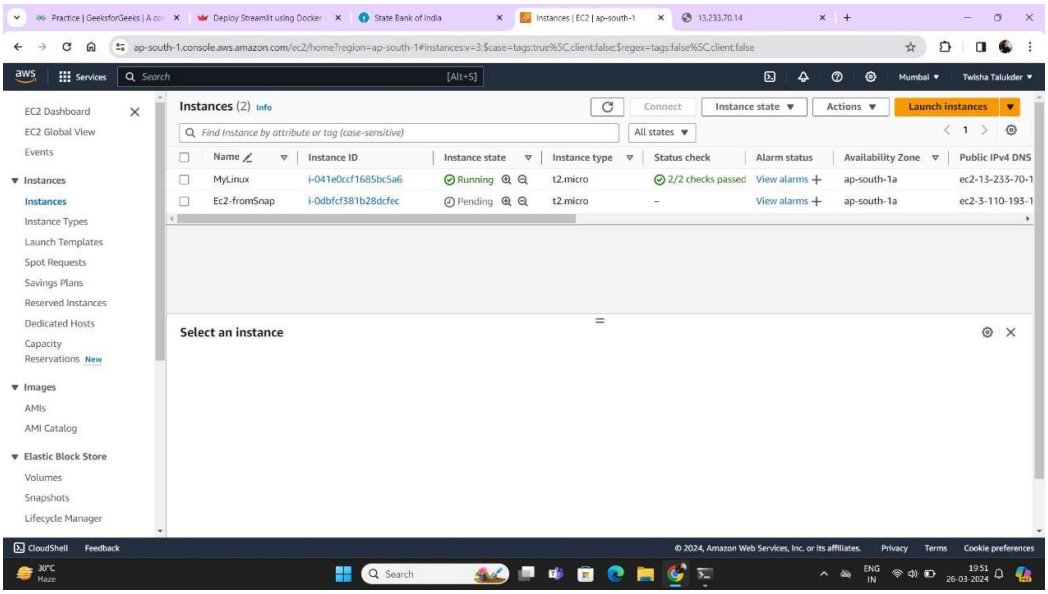


STEP 4: Wait for the image creation process to complete. This may take some time depending on the size of the snapshot. Once the image is created, it will be available in the list of AMIs (Amazon Machine Images).

STEP 5:Choose the AMI tab and select "My AMIs" from the left panel. Select the image you just created. Choose an instance type, configure other settings as required, and proceed to launch the instance.



STEP 6: Configure the instance settings such as network, security group, key pair, etc., based on your requirements.Review and launch the instance.

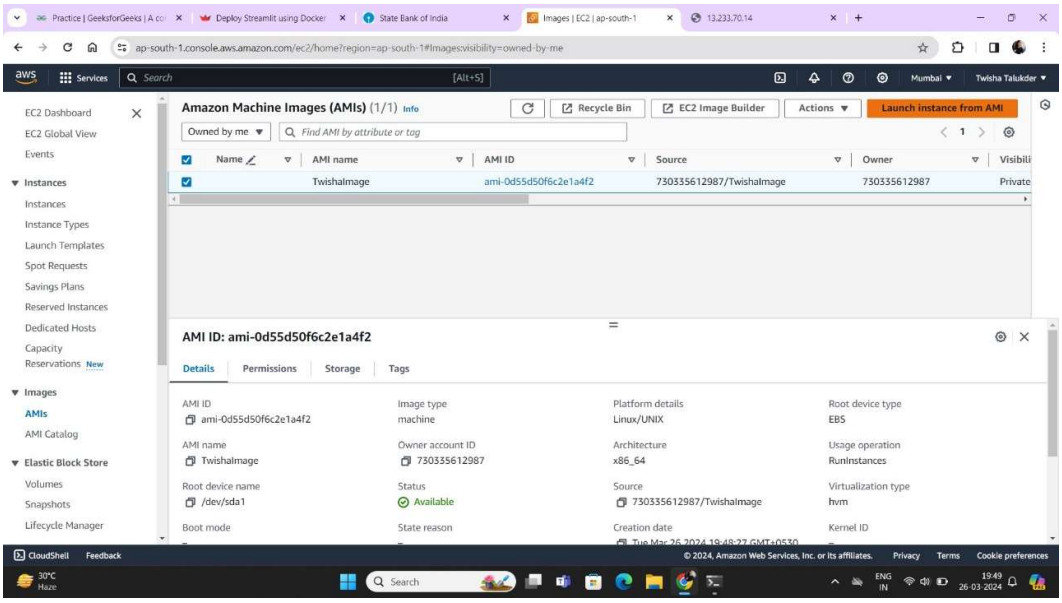


STEP 7: Once the instance is launched, you can connect to it using SSH (for Linux instances) or RDP (for Windows instances) using the appropriate credentials and IP address.

ASSIGNMENT 6: Live VM migration in different account.

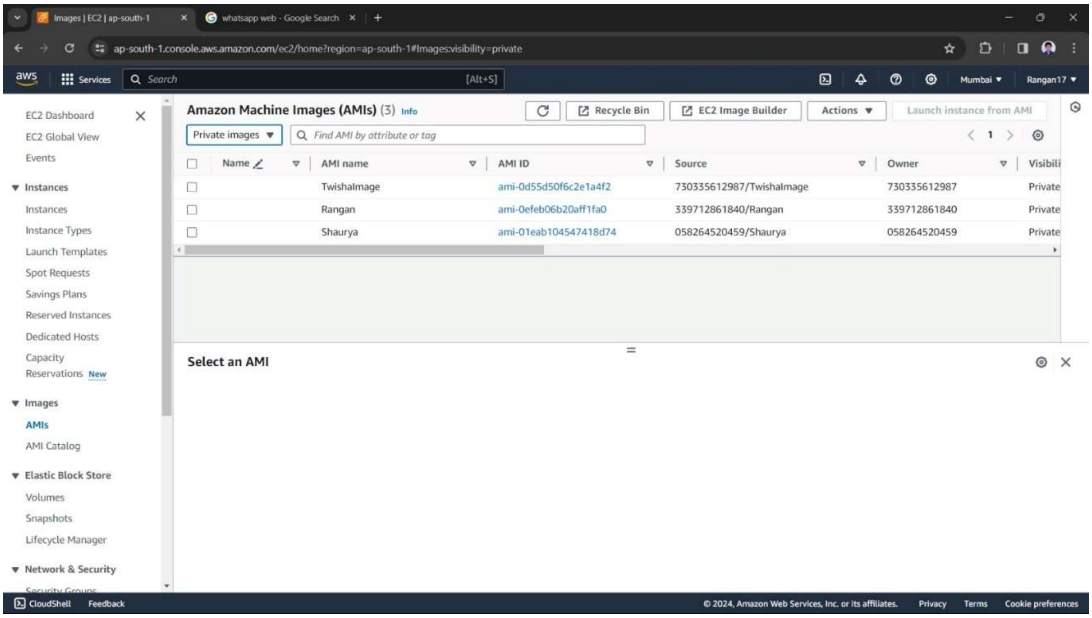
STEP 1 : Log in to your AWS Management Console and Navigate to the EC2 Dashboard.

STEP 2: Click on AMI under Images in left hand menu.

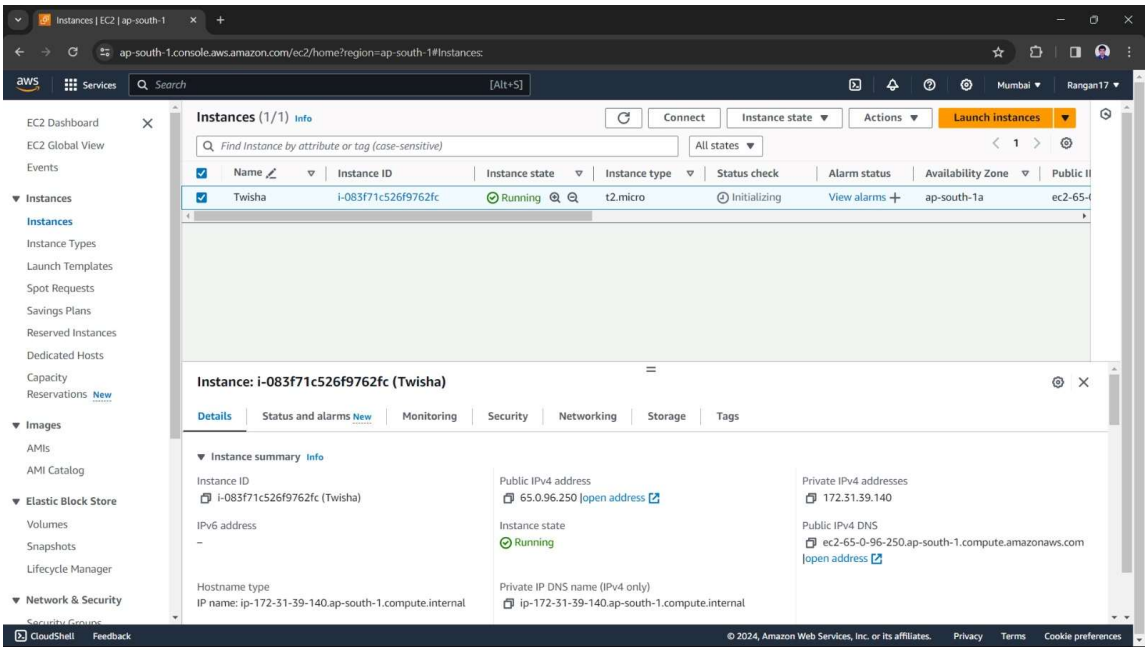


STEP 3: Select the Image Created and navigate to permissions where you can edit AMI permissions and Share account ID.

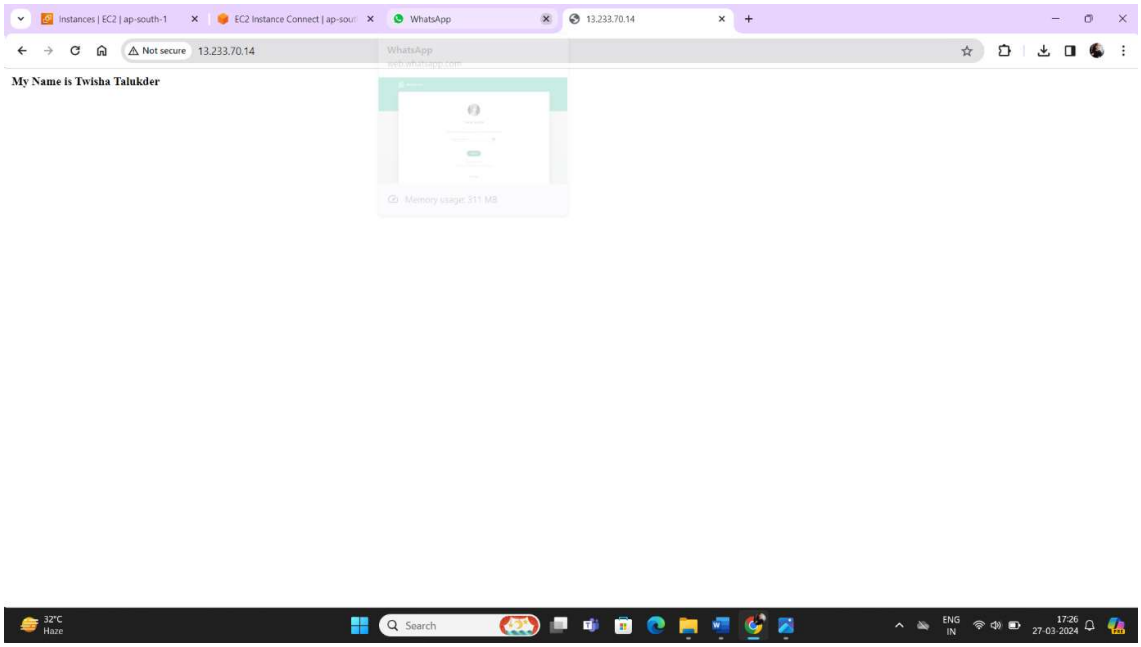
STEP 4: After sharing the account ID come back to AMI and select private images , You can see the Images owned by you as well as the Images shared with different account ID.



STEP 5: Now Launch the instance from AMI and see new instance is created in EC2 Dashboard.



STEP 6: Paste the public IP address of the new instance to the browser ,you can see the hosted webpage of the other account holder.



ASSIGNMENT 7: Install and configure Aneka 5.0 with master and worker

STEP 1 : Visit the Aneka website or the official repository to download the Aneka distribution package.

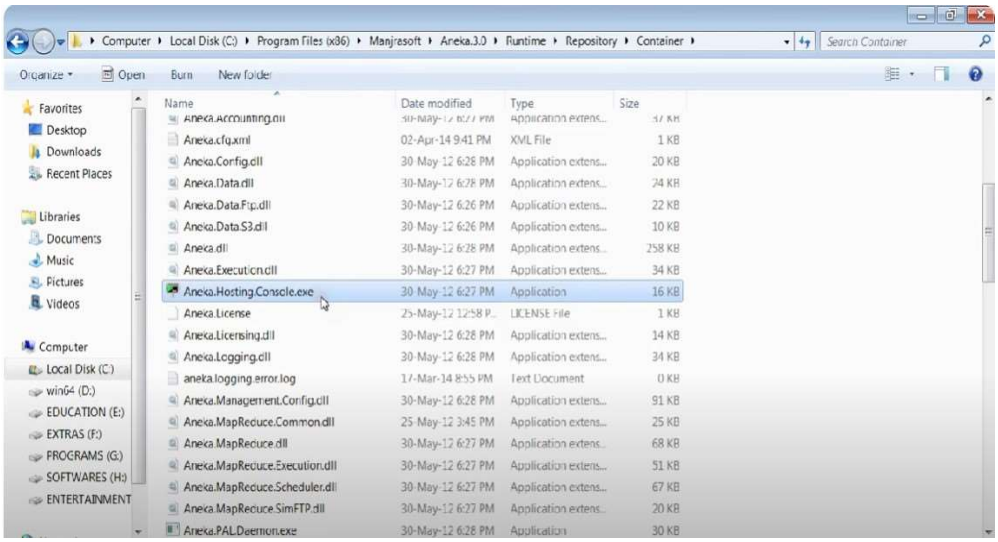
STEP 2 : Choose a machine to act as the master node. Extract the Aneka distribution package on the master node. Follow the installation instructions provided in the Aneka documentation or README file.

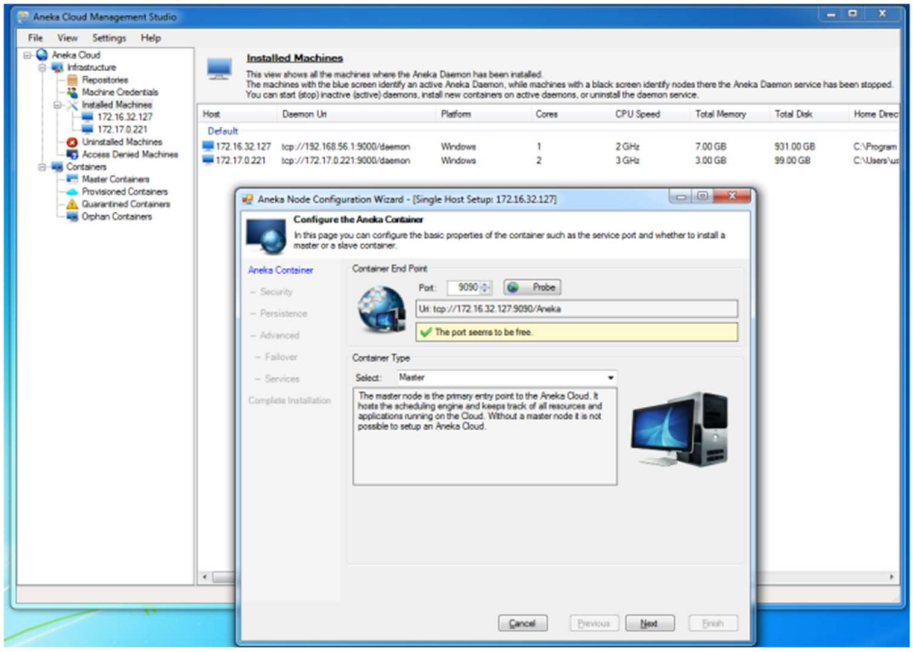
STEP 3: Choose one or more machines to act as worker nodes.Configure each worker node to connect to the master node. This usually involves providing the master node's IP address or hostname and port number.

STEP 4: Start the Aneka Master service on the master node. Start the Aneka Worker service on each worker node. Verify that both master and worker nodes are running without any errors.

STEP 5: Access the Aneka Management Console on the master node (usually through a web browser). Log in to the console using the default credentials or the ones you specified during installation.

STEP 6: Submit some sample tasks or jobs to the Aneka platform to ensure that the master and worker nodes are working correctly. Monitor the job execution and resource utilization using the Aneka Management Console.





ASSIGNMENT 8: Run Inbuilt Application top of Aneka

STEP 1: Ensure that the inbuilt application is compatible with the Aneka platform.If necessary, package the application and its dependencies into a distributable format (e.g., JAR file for Java applications).

STEP 2: Make sure that your Aneka environment (master and worker nodes) is set up and running properly as per the previous instructions.

STEP 3: Access the Aneka Management Console on the master node. Navigate to the application deployment section or the appropriate interface for uploading applications. Upload the packaged inbuilt application to the Aneka platform.

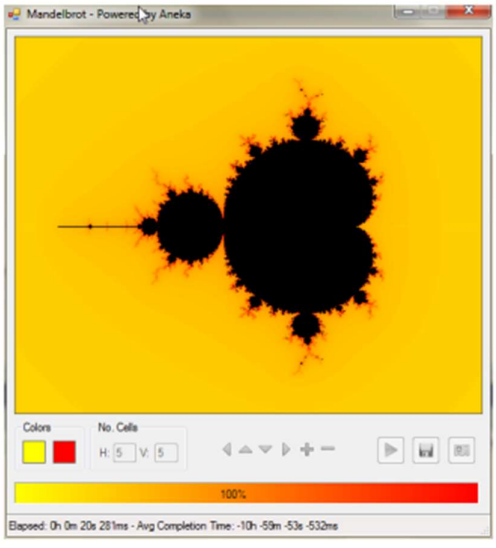
STEP 4: Provide any necessary parameters or configurations required by the inbuilt application. This may include specifying input data, output locations, environment variables, or any other settings required for the application to run successfully.

STEP 5: Use the Aneka Management Console or Aneka APIs to submit a job for executing the inbuilt application. Specify the uploaded application along with its parameters in the job submission.

STEP 6: Monitor the execution of the job through the Aneka Management Console.Track the progress of the application as it runs on the Aneka platform. Monitor resource utilization and performance metrics to ensure efficient execution.

STEP 7: Once the job completes, retrieve the output or results generated by the inbuilt application.

STEP 8: Analyze the results produced by the inbuilt application to derive insights or make decisions based on the application's output.



Mandelbrot Application developing on top of Aneka Thread Model.

ASSIGNMENT 9: Run your one application top of Aneka

STEP 1: Prepare Your Application and ensure compatibility and package it with dependencies.

STEP 2 : Set up master and worker nodes according to Aneka's instructions.

STEP 3 : Use the Aneka Management Console to upload your packaged application .

STEP 4 : Provide necessary configurations and parameters for your application.

STEP 5 : Use the Aneka Management Console or APIs to submit your application for execution .

STEP 6 : Track progress and resource utilization through the Aneka Management Console.

STEP 7 : Access output and logs generated by your application after completion .

STEP 8 : Interpret the application's output within your specific use case .