ASSIGNMENT 7 :-

PROBLEM STATEMENT :-

PROBLEM STATEMENT -> Hosting a Website on EC2.

#To host the website ->

STEP 1-> Create 3 Static Webpages using HTML

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Index Page</title>
</head>
<body>
    <a href="about.html"> About Page</a>
    <a href="services.html"> Services Page</a>
</body>
</html>
```

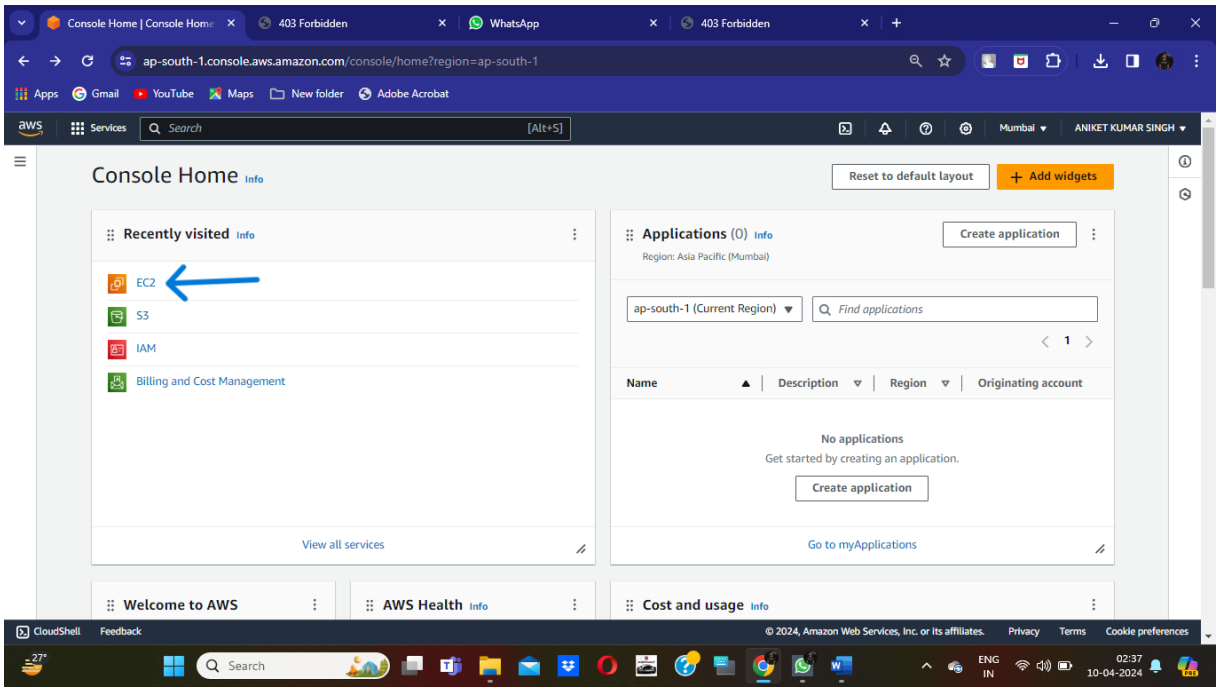
about.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>About Page</title>
</head>
<body>
    <a href="index.html">Index Page</a>
    <a href="services.html">Services Page</a>
</body>
</html>
```

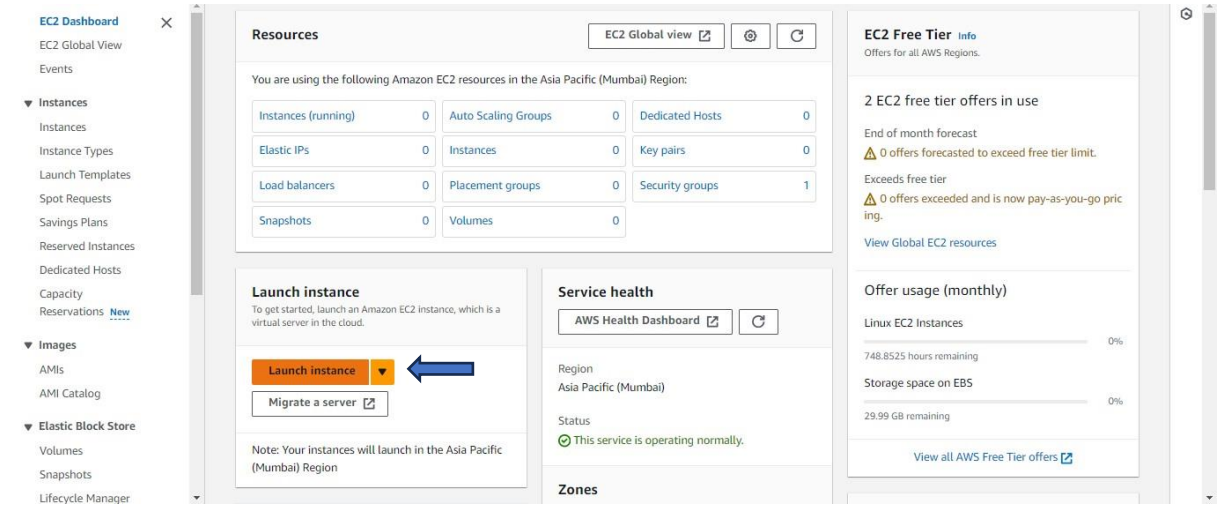
services.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Services Page</title>
</head>
<body>
    <a href="index.html">Index Page</a>
    <a href="about.html">About Page</a>
</body>
</html>
```

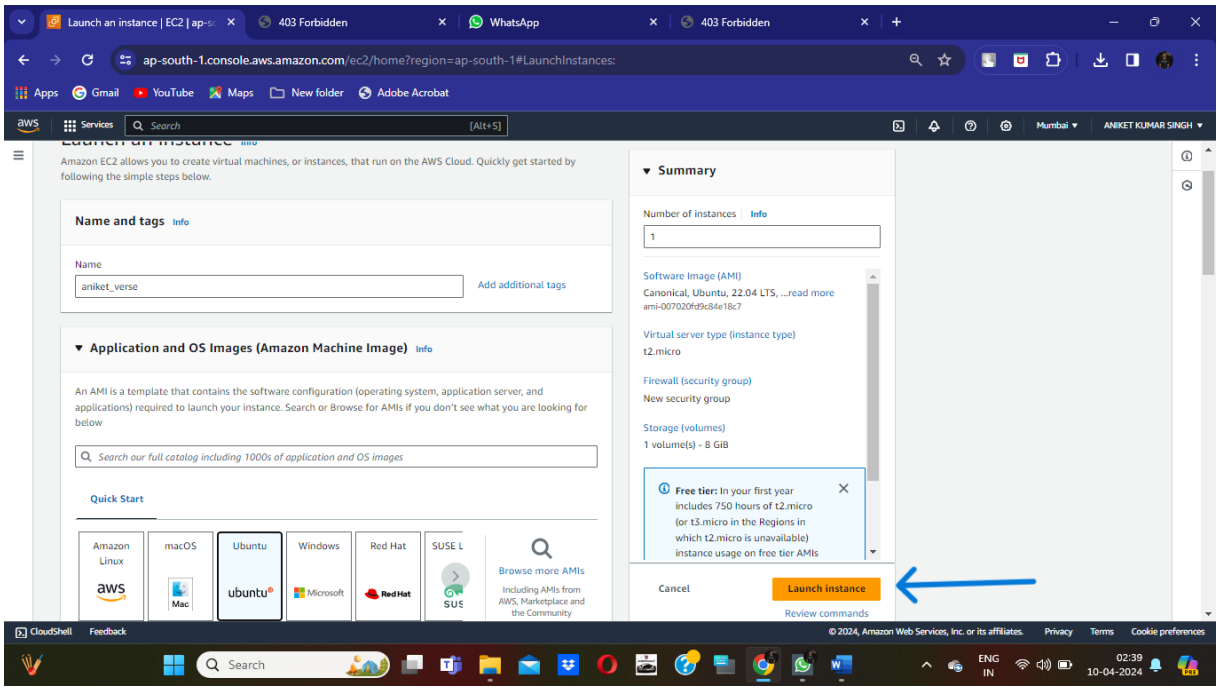
STEP 2-> Search for the “EC2”and Click on the “EC2” option.



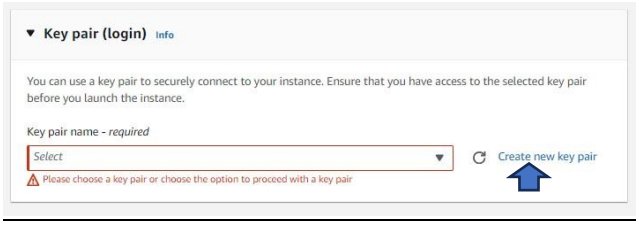
STEP 3-> Click on "Launch Instance" button: Initiate the process of launching a new virtual server instance. This step begins the setup for hosting your website on an EC2 instance.



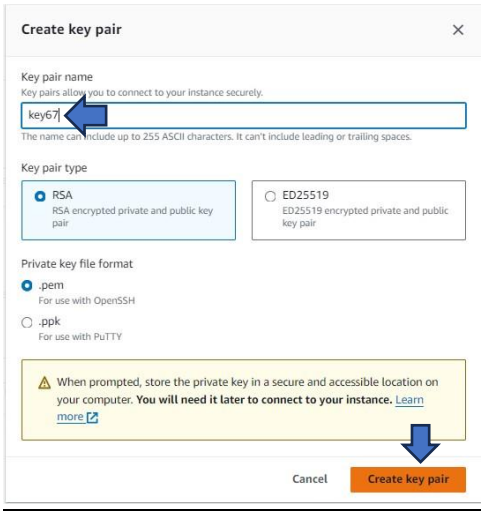
STEP 4-> Give a unique name to the instance & select "Ubuntu": Provide a distinctive name for your instance and choose the Ubuntu operating system. Naming helps identify and manage your instances, while Ubuntu is a popular choice for server environments..



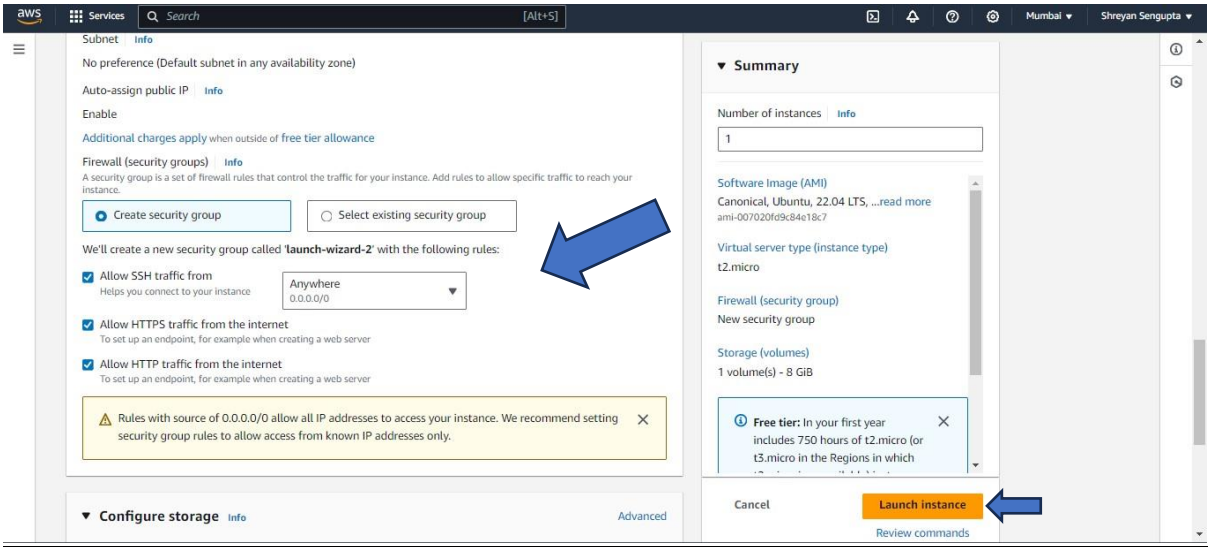
STEP 5-> Create a new key pair by clicking "Create New Key Pair" button: Generate a new SSH key pair for secure access to the instance. SSH keys are used for secure authentication and access control.



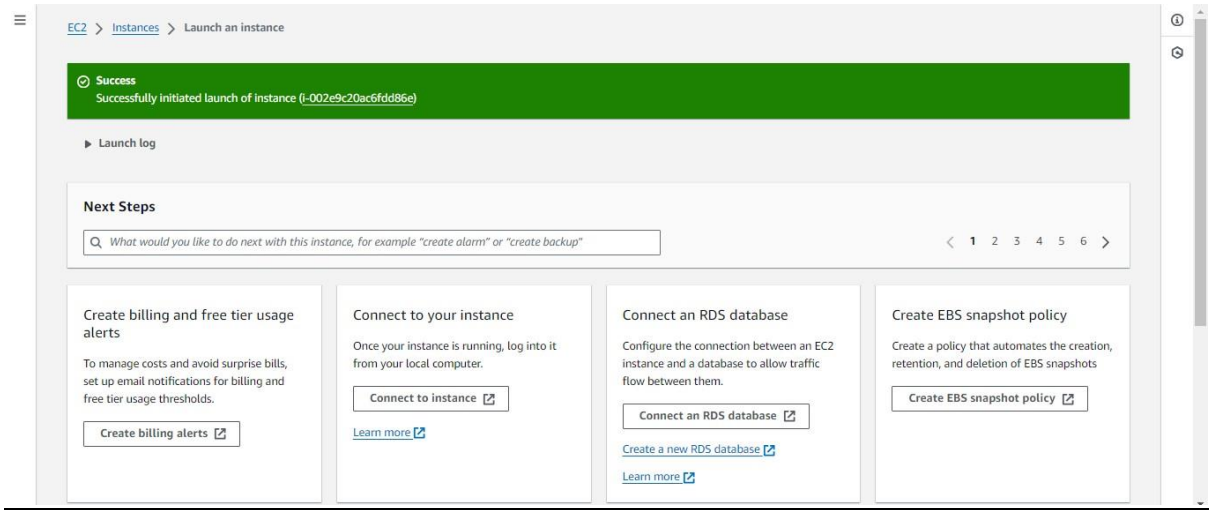
STEP 6-> Give a name to the key pair, then click "Create Key Pair": Name your newly generated key pair and create it. This key pair will be used to securely connect to your EC2 instance.



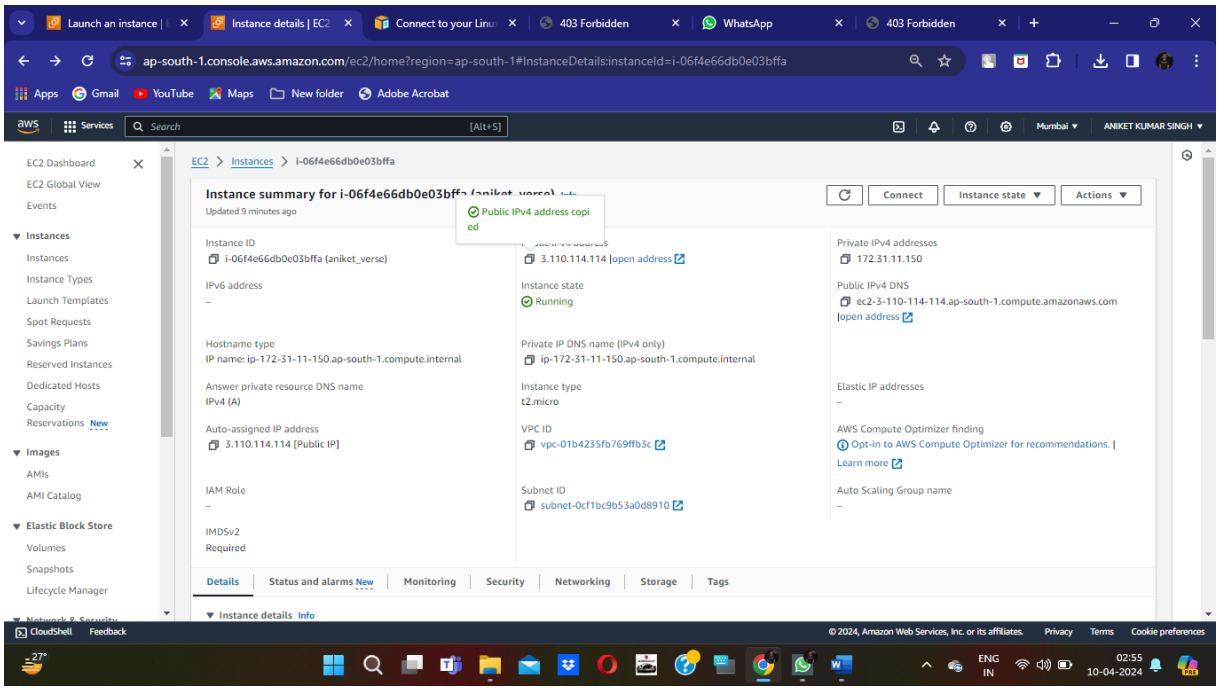
STEP 7-> Select all the Security options, then click on "Launch Instance": Configure security settings such as security groups and key pair. Security settings ensure your instance is protected and accessible only to authorized users.



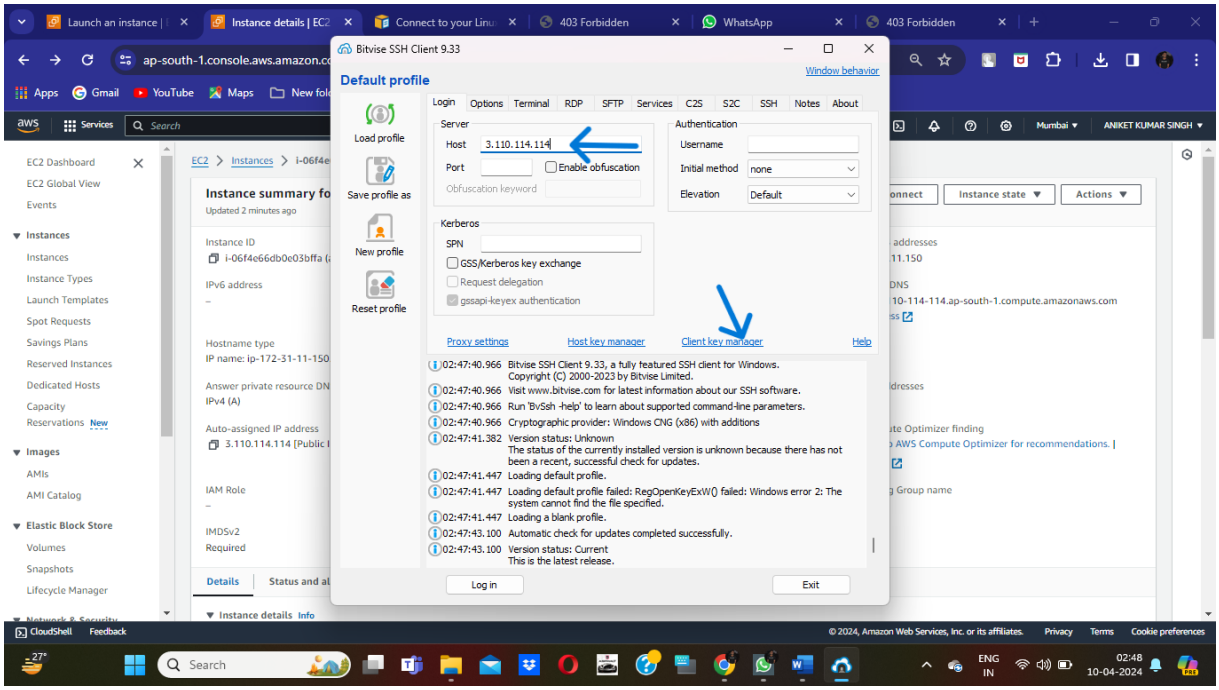
STEP 8-> Click on the instance ID to access it: Navigate to the details page of the newly created instance. This is where you manage and configure your EC2 instance settings.



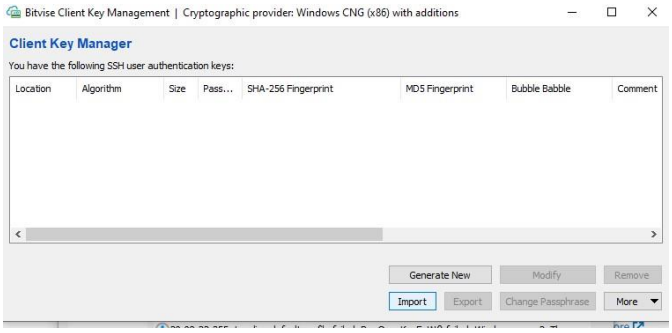
STEP 9-> Copy the "Public IPv4 Address" of the instance: Obtain the public IP address assigned to your EC2 instance. The public IP address is used to access your website hosted on the EC2 instance.



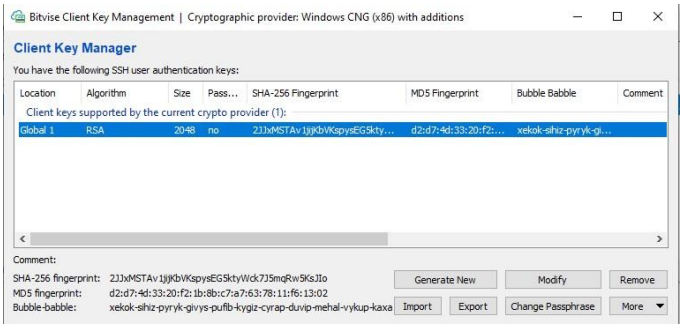
STEP 10-> Paste IP address under Host, then go to "Client Key Manager" option: Enter the copied IP address in the appropriate field and proceed to manage client keys.



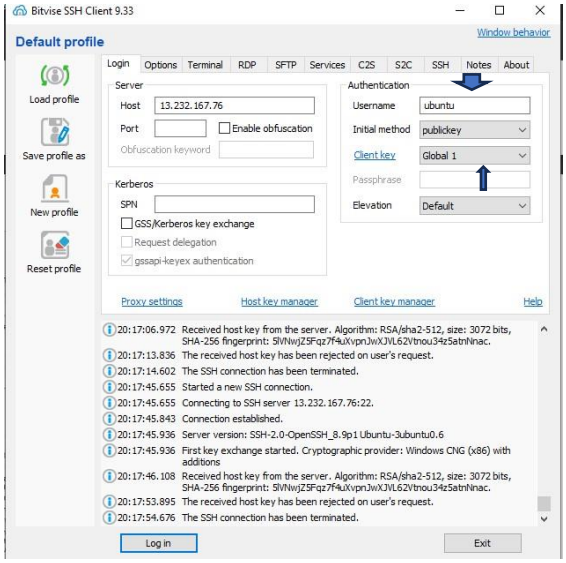
STEP 11-> Click on "Import" button & select the key, then click "Import": Import the previously created SSH key pair into the client key manager.



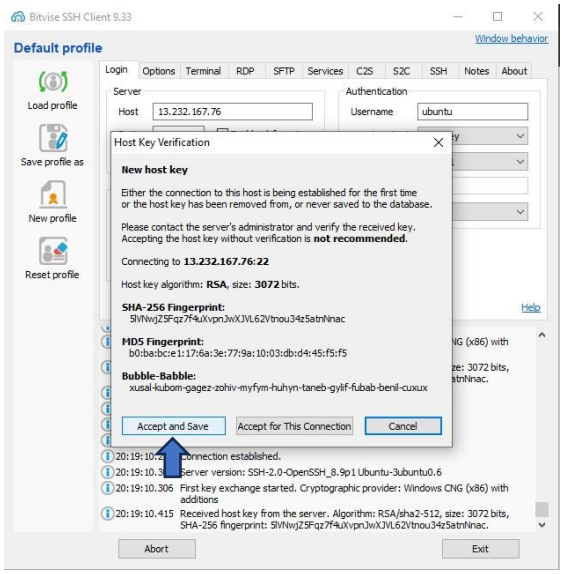
STEP 12-> The new key is successfully added, click "Import": Confirm the successful import of the SSH key pair. Verifying that the key pair has been correctly configured for authentication.



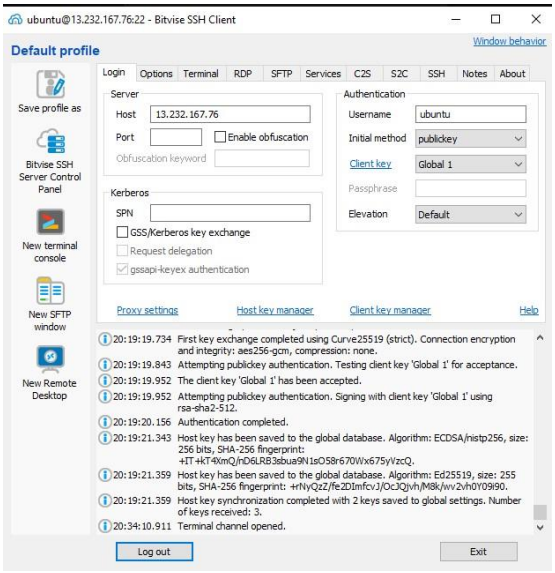
STEP 13-> Give the username as "ubuntu," select "Public Key" & "Global 1", then click the "Log in" button: Provide the username and select authentication method for logging into the EC2 instance. Configuring login credentials and authentication method for SSH access.



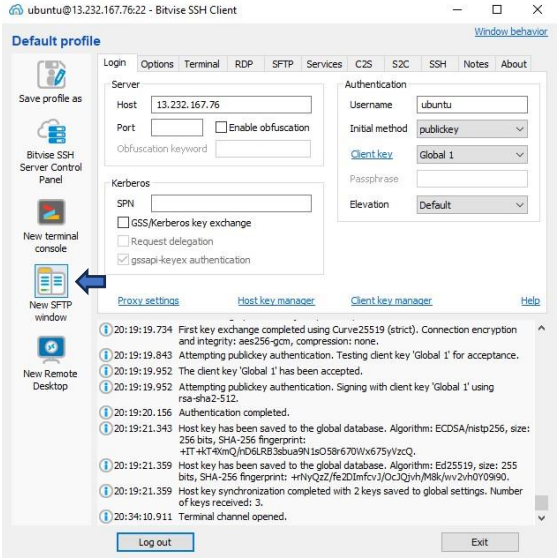
STEP 14-> Click on "Accept & Save" button: Accept and save the connection.



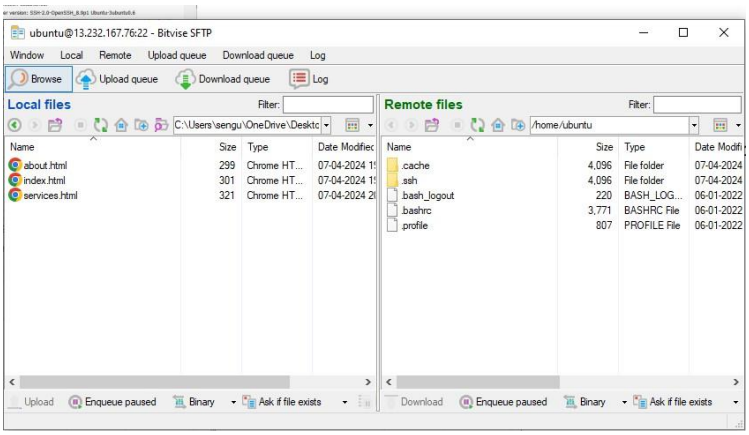
STEP 15-> Now the client is connected: Verify that the client has successfully established a connection to the EC2 instance.



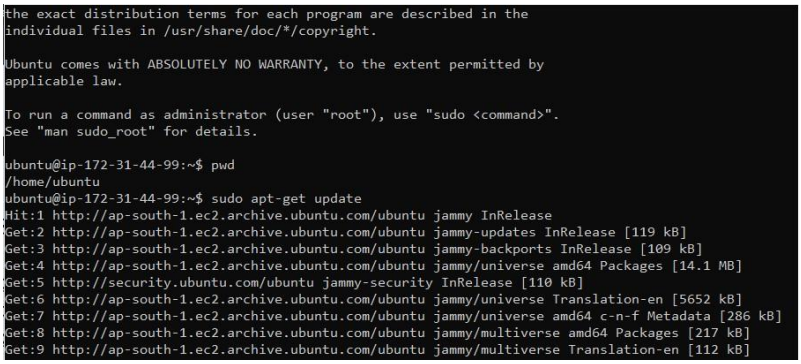
STEP 16-> Click on "New SFTP Window" button: Open a new SFTP (Secure File Transfer Protocol) window

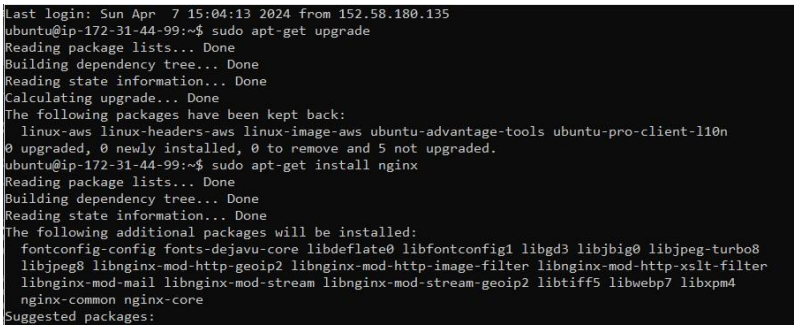


STEP 17-> Under Local Files, open the folder where the HTML files are present: Navigate to the directory containing the HTML files on the local machine. Locating the HTML files that will be uploaded to the EC2 instance.



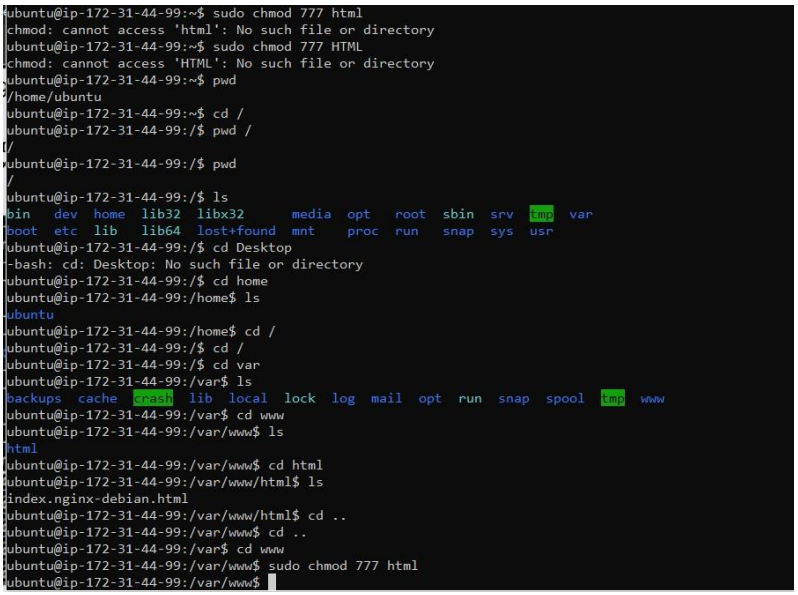
STEP 18-> Go to the terminal and type the following commands. “ sudo apt-get update “ , ” sudo aptget upgrade “ , “ sudo apt-get install nginx ” sudo apt-get update: Updates the local package index to reflect the latest changes in repositories. sudo apt-get upgrade: Upgrades installed packages to their latest available versions. sudo apt-get install nginx: Installs the Nginx web server on the system.



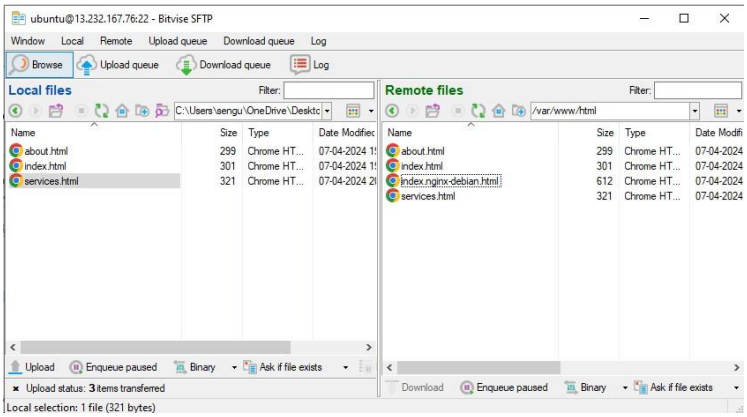


STEP 19-> Type the command “sudo chmod 777 html” and press “Enter”.

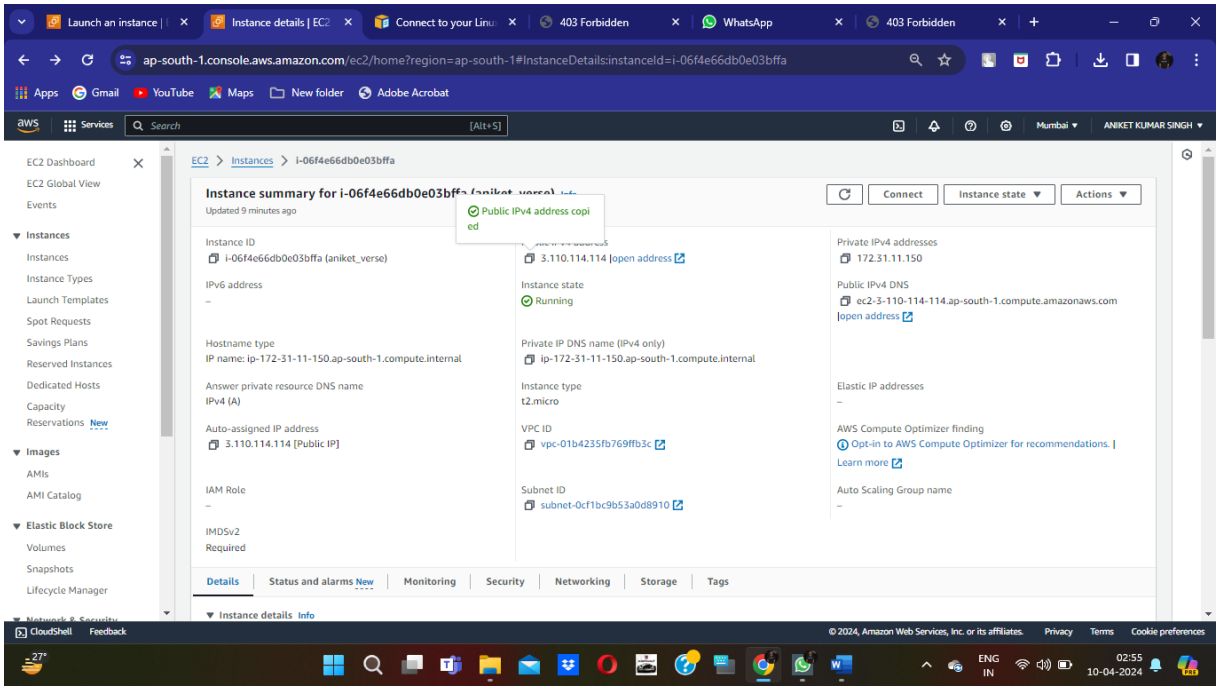
The command "sudo chmod 777 html" is used to change the permissions of the directory named "html" to allow full read, write, and execute permissions for all users.



STEP 20-> Now going back to the "SFTP Window," under the "Remote Files," open the HTML directory and drag & drop the HTML files: Transfer the HTML files from the local machine to the EC2 instance using SFTP. Uploading the website content to the EC2 instance for hosting



STEP 21-> Now go back to the “AWS Window” and copy the public IPV4 address and paste in the new tab. Anyone can access it.



STEP 22-> A new window will open with the webpage.