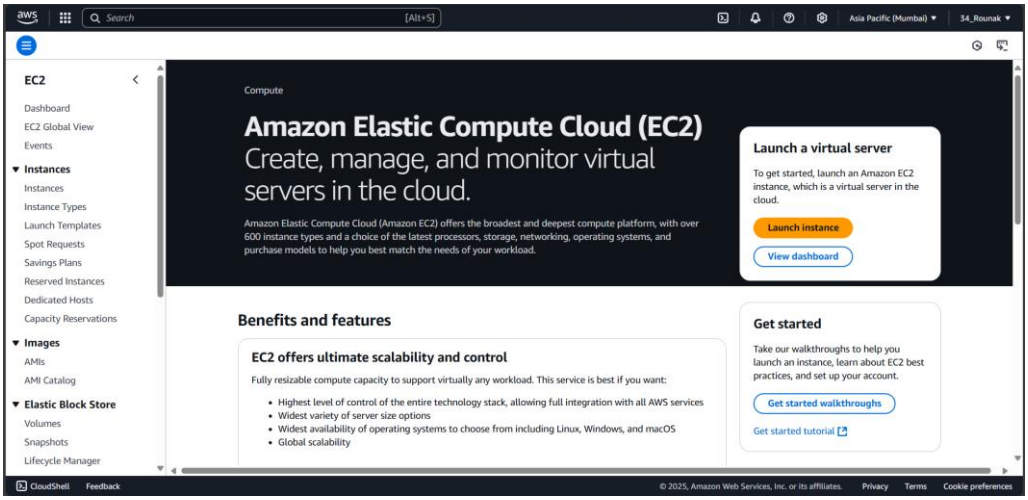
Assignment number: 7

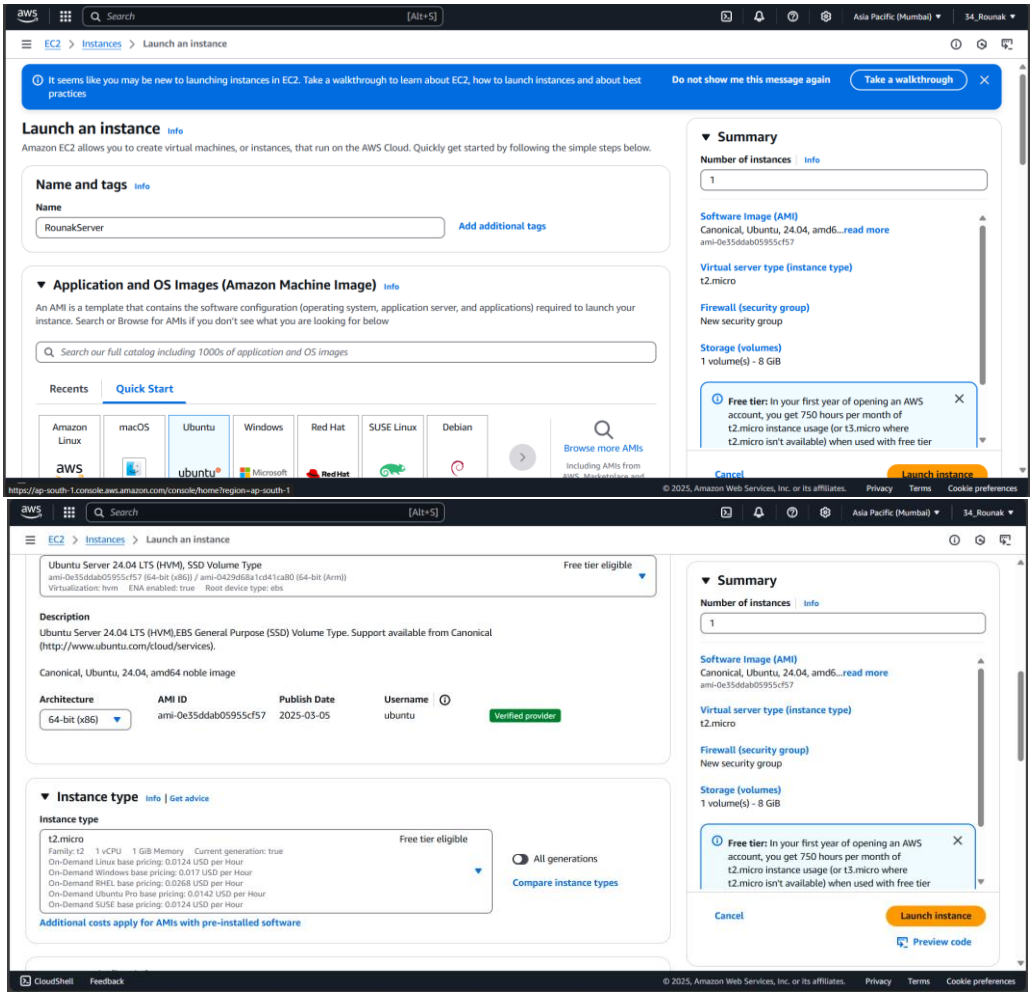
Problem definition: Hosting a website on EC2.

Step 1: Sign in to your AWS account as the root user.

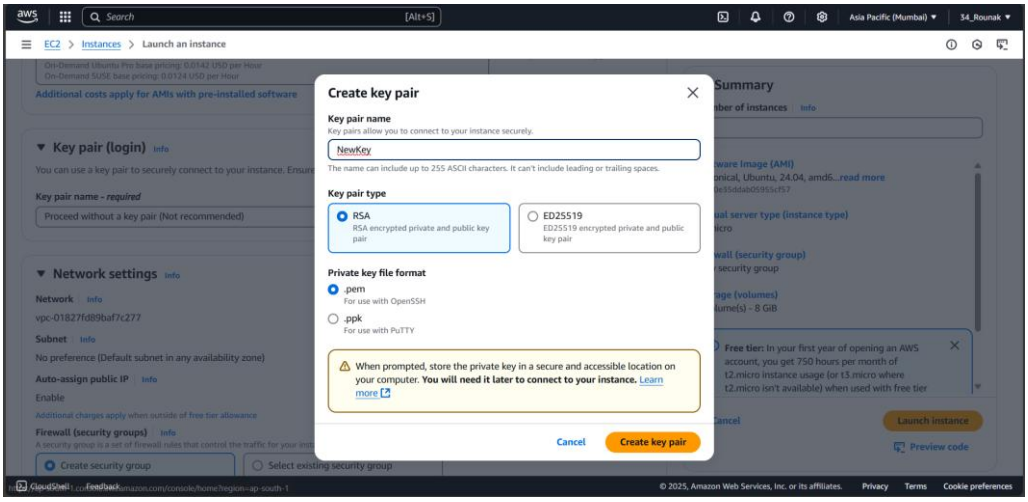
Step 2: Log in to the AWS Management Console, use the search bar to search for “EC2,” and click on the EC2 service. Click on “Launch instance”.



Step 3: In the “Name and Tags” section, enter a descriptive name for your instance. Under “Application and OS Images,” choose Ubuntu. Ensure that the selected instance type meets your requirements.



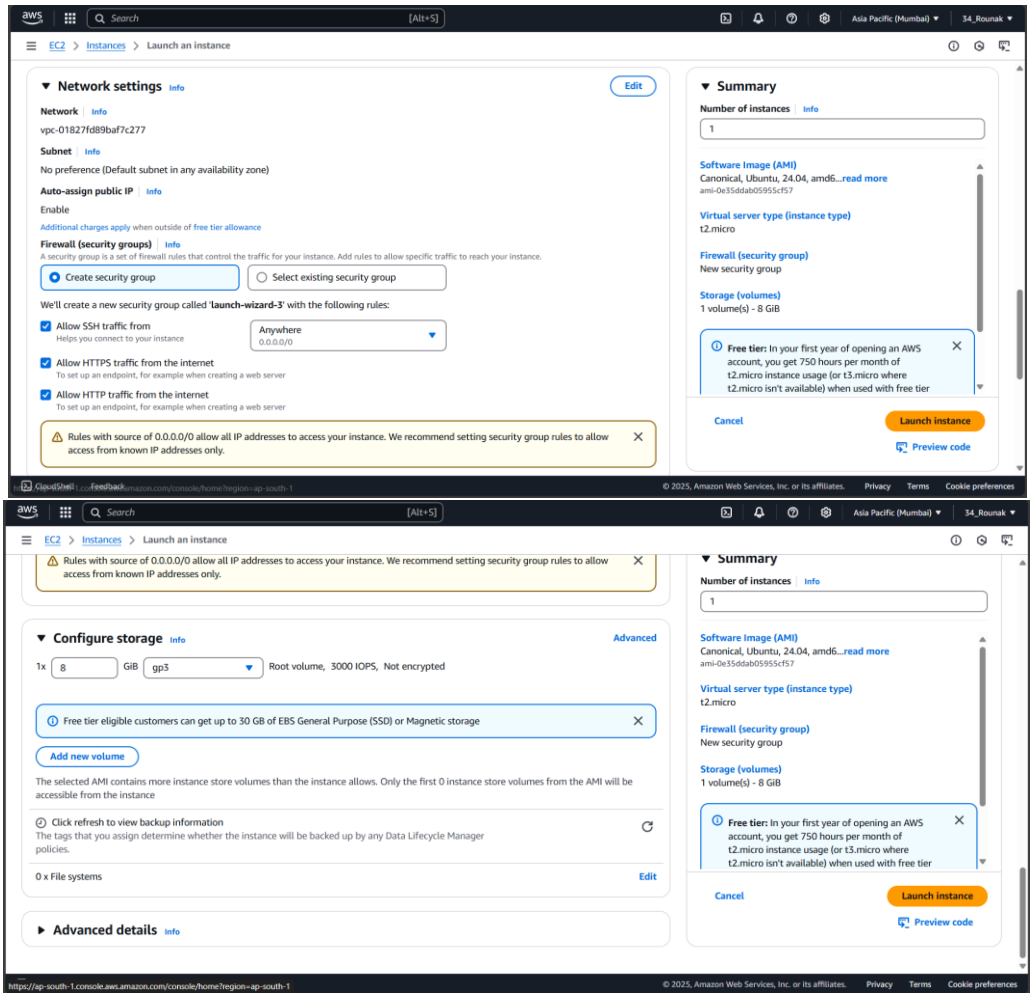
Step 4: In the “Key pair (login)” section, click on **Create new key pair**. Give a name, ensure that the key pair type is set to **RSA** and select **.pem** as the private key file format. Click on **“Create key pair”**.



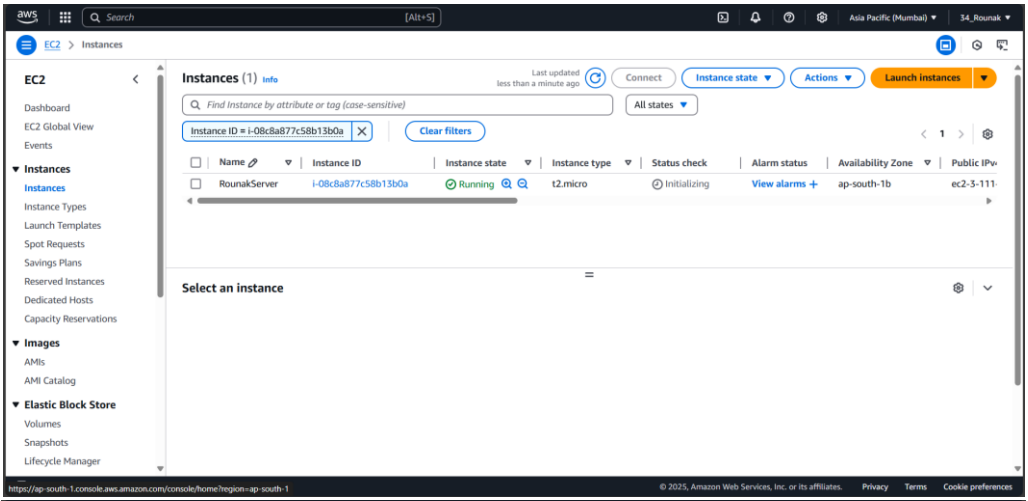
Step 5: In the “Network Settings” section, tick all the necessary checkboxes to allow essential traffic:

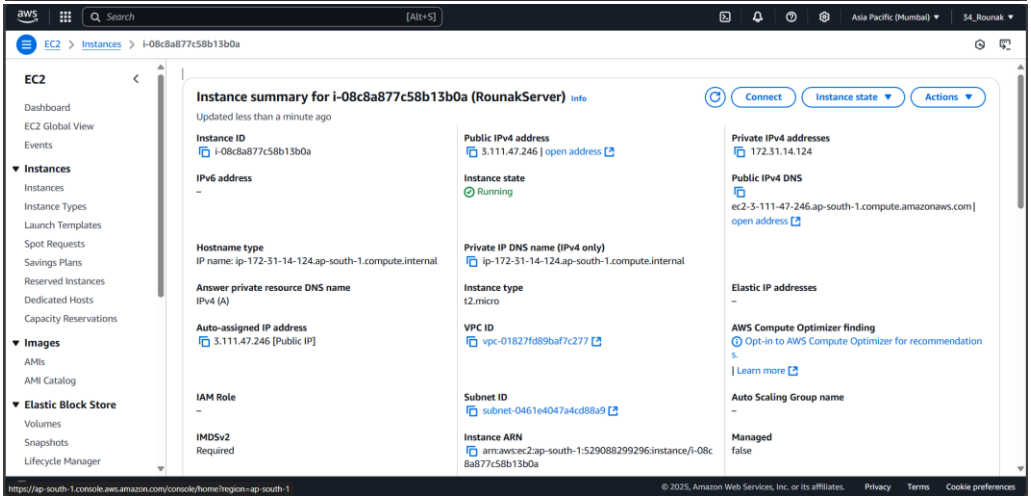
- **SSH (port 22):** For connecting to the instance.
- **HTTP (port 80):** For serving your website.
- **HTTPS (port 443):** For secure browsing.

Click on “Launch instance”.

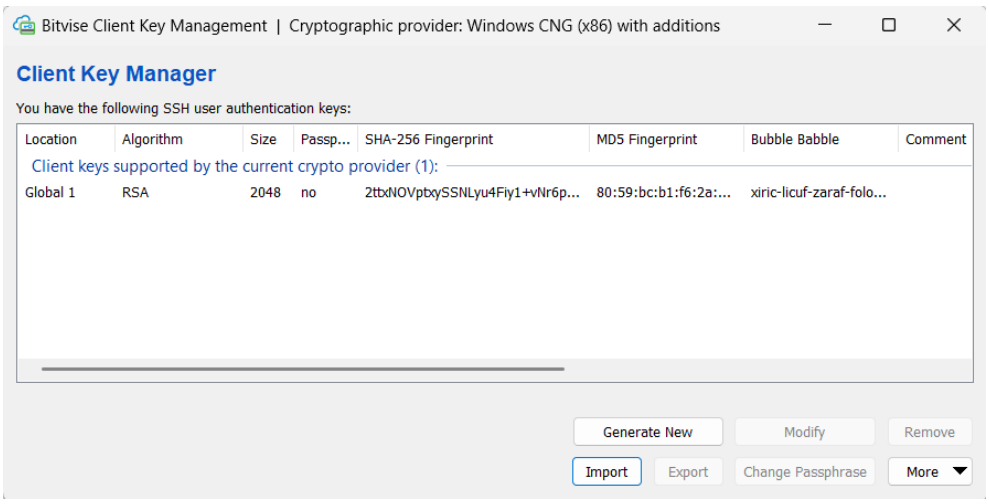


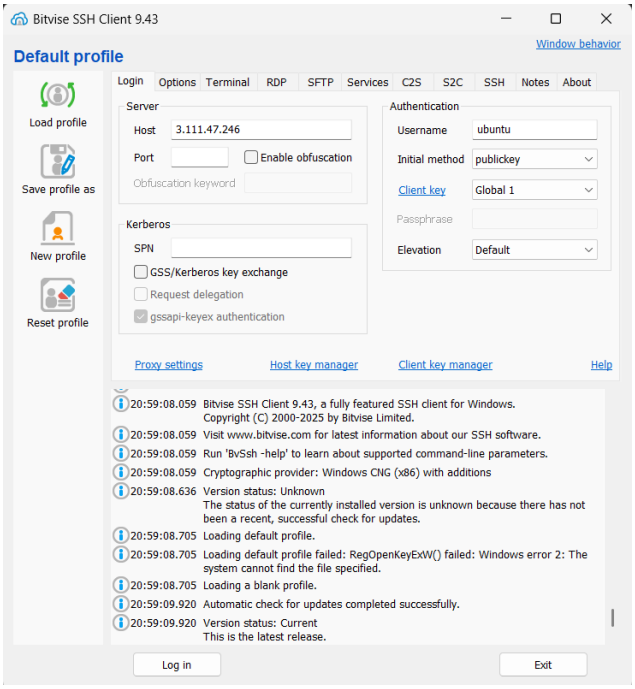
Step 6: Once the instance is launched, you should see it listed under **Instances**. Click on the **Instance ID** to view more details. In the EC2 details, click on the **Public IPv4 address** and copy it.

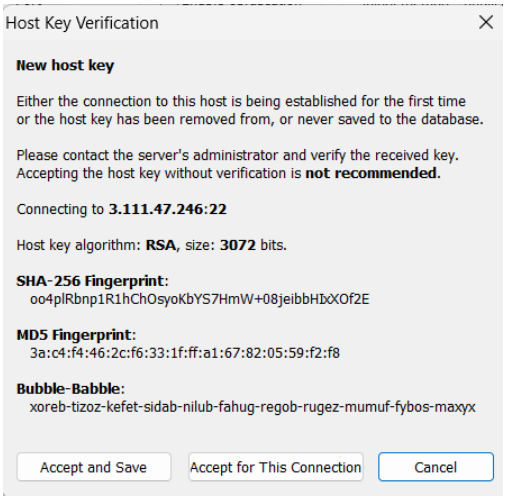




Step 7: Open the **Bitvise SSH Client**. In the main window, paste the **Public IPv4 address** into the **Host** field. Click on "**Client Key Manager"**, click "**Import"** (if any key is already present, remove it), select the previously downloaded key file (e.g., NewKey.pem), and click "**Import"** again to add the key. Set **Username** to "ubuntu". From the **Client Key Manager** dropdown, select the imported key. Click "**Log in"** and then "**Accept & Save"** to establish the connection.







Step 9: In Bitvise SSH Client, click on "**New Terminal Console"**. Run the command "pwd" to verify your current directory.

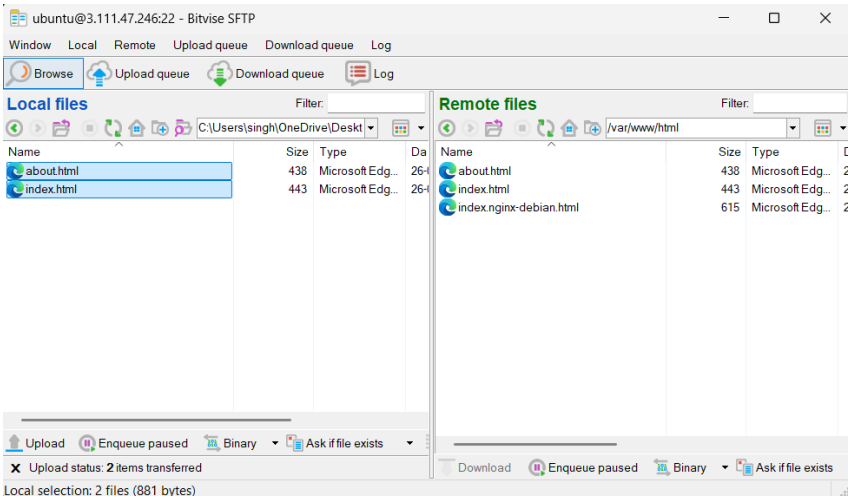
```
ubuntu@ip-172-31-14-124:~$ pwd
/home/ubuntu
```

Step 10: In the terminal console, run the following commands: "sudo apt-get update", "sudo apt-get upgrade" and "sudo apt-get install nginx".

Step 11: Navigate to the directory containing your website files (typically found at /var/www/html on the EC2 instance). To ensure you have the right permissions to modify files, run: 'cd /var/www" and "sudo chmod 777 html".

```
ubuntu@ip-172-31-14-124:~$ cd /var/www
ubuntu@ip-172-31-14-124:/var/www$ sudo chmod 777 html
```

Step 12: In Bitvise SSH Client, open the **"New SFTP Window"**. On the **Remote Files** side, navigate to /var/www/html. On the **Local Files** side, navigate to the folder on your computer containing your website files (e.g., index.html, about.html, etc.). Drag and drop your HTML files (e.g., index.html, about.html, etc.) from your local machine into this directory. If you encounter any permission errors, re-run the chmod command and try the file upload again.



Step 13: Open your web browser and paste the Public IPv4 address into the address bar. f everything is configured correctly, the browser should load your website's home page (usually index.html).