

**School of Computer Science, Engineering and Applications (SCSEA)**

**B. Tech TY (CCSA)**

**Subject: Cloud Architecture And Protocol**

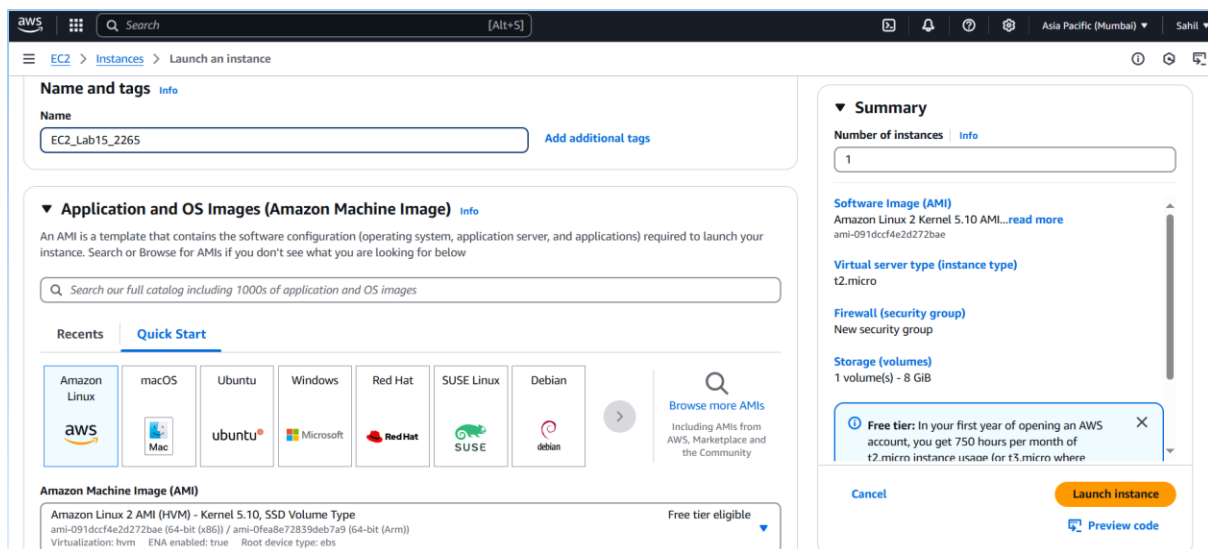
**Name of the Student: Sahil S. Mandawgade**

**PRN: 20220802265**

**Title of Practical: 15. Static Website Hosting on EC2 with Persistent Access via Elastic IP.**

**Step 1: Launch an EC2 Instance with User Data.**

- Open AWS Console.
- Go to EC2 – Click on ‘Launch instance’.
- Name the instance as ‘EC2\_Lab15\_2265’.
- Choose **Amazon Linux 2 AMI** (Free Tier eligible).
- Choose **t2.micro**.
- Select **Key Pair**.
- Add a **Security Group** with following rules:
  - **SSH** (Port 22) from Anywhere.
  - **HTTP** (Port 80) from Anywhere.
  - **HTTPS** (Port 443) from Anywhere.



- Under **Advanced Details**, paste the following in **User Data**:

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**User data - optional**

[Info](#)

Upload a file with your user data or enter it in the field.

[Choose file](#)

```
#!/bin/bash
yum install -y httpd && systemctl start httpd && systemctl enable httpd
cd /var/www/html
curl -LO https://bit.ly/ec2-site && unzip ec2-site
```

- Launch the instance.

**Step 2: Verify Static Website.**

- Once running, copy the **Public IPv4 address** of the instance.

**Instance summary for i-03c8c876f12fb904e (EC2-Lab15-2265)** [Info](#)

Updated less than a minute ago

<b>Instance ID</b> i-03c8c876f12fb904e	<b>Public IPv4 address</b> 3.109.55.197   <a href="#">open address</a>	<b>Private IPv4 addresses</b> 172.31.5.198
<b>IPv6 address</b> -	<b>Instance state</b> Running	<b>Public IPv4 DNS</b> ec2-3-109-55-197.ap-south-1.compute.amazonaws.com   <a href="#">open address</a>
<b>Hostname type</b> IP name: ip-172-31-5-198.ap-south-1.compute.internal	<b>Private IP DNS name (IPv4 only)</b> ip-172-31-5-198.ap-south-1.compute.internal	<b>Elastic IP addresses</b> -
<b>Answer private resource DNS name</b> IPv4 (A)	<b>Instance type</b> t2.micro	

- Paste the **Public IPv4 address** in a new tab.
- You should see:  
**Apache Server is Running – Hosted from EC2**
- The IP address here is : '3.109.55.197'

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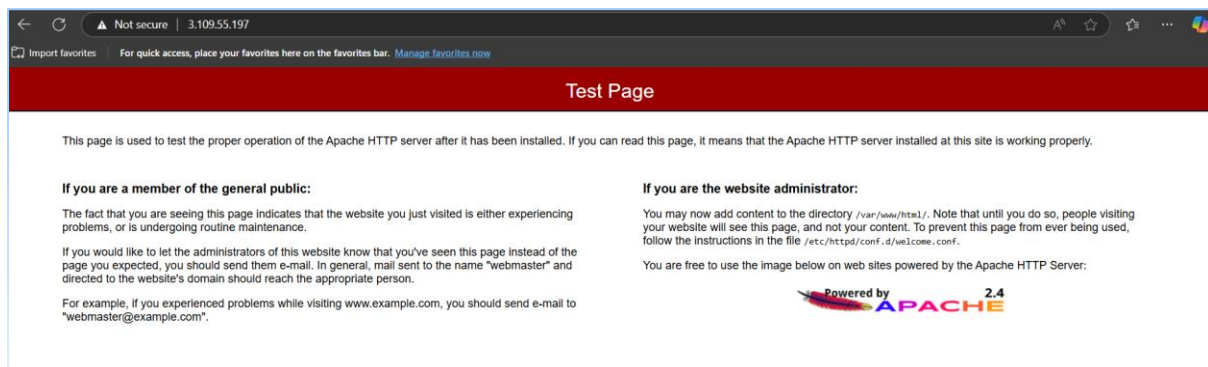
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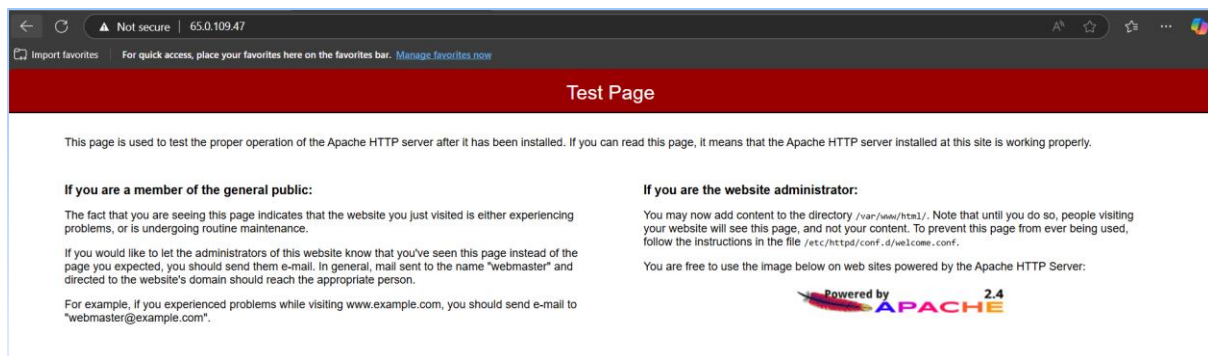
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#### **Step 3: Stop and Start Instance to Observe IP Change**

- Stop the instance.
- Start it again.
- Access the new IP in browser – the page should still work, but the IP is different.
- The new IP address is : '65.0.109.47'.



#### **Step 4: Allocate and Associate Elastic IP.**

- Go to Elastic IPs – Allocate Elastic IP address.

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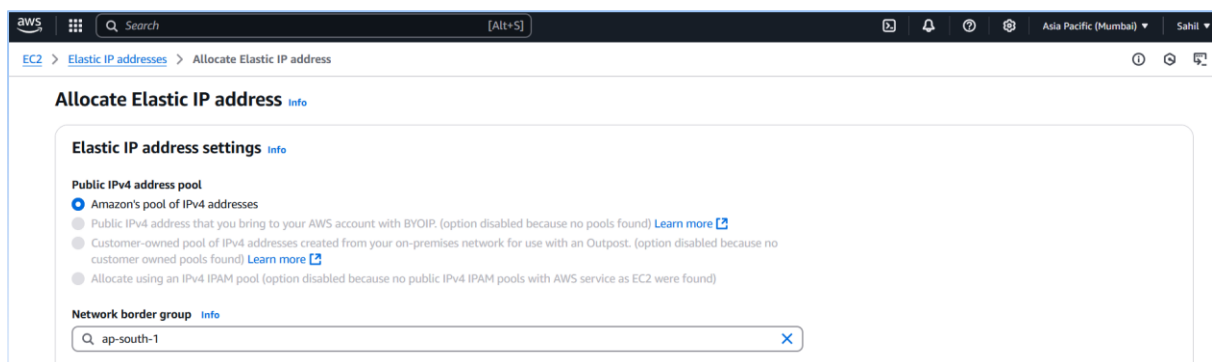
### B. Tech TY (CCSA)

### Subject: Cloud Architecture And Protocol

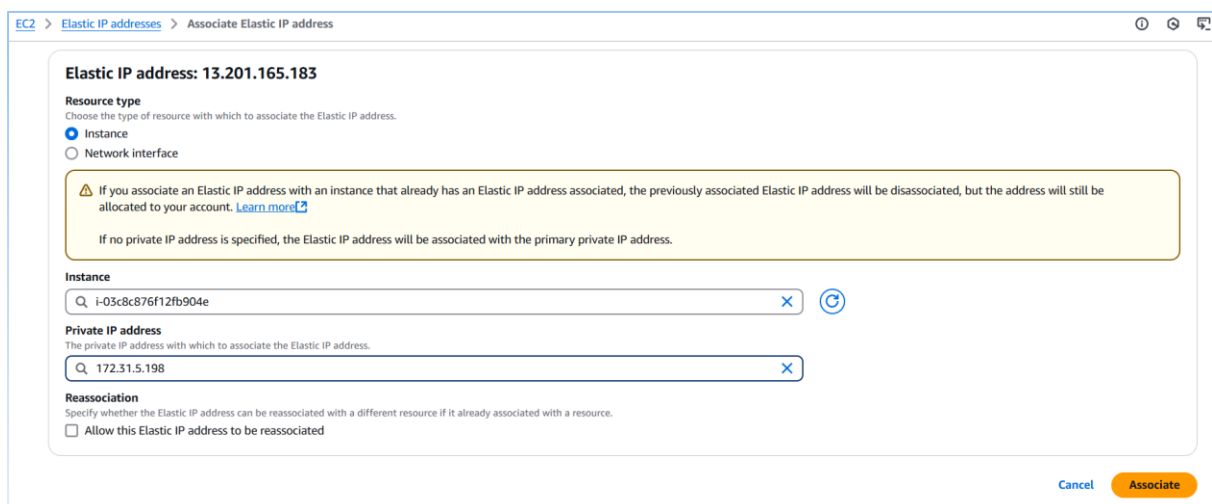
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- Click on **Associate Elastic IP** with the instance.
  - Select the instance we created.
  - Select the Private IP address.

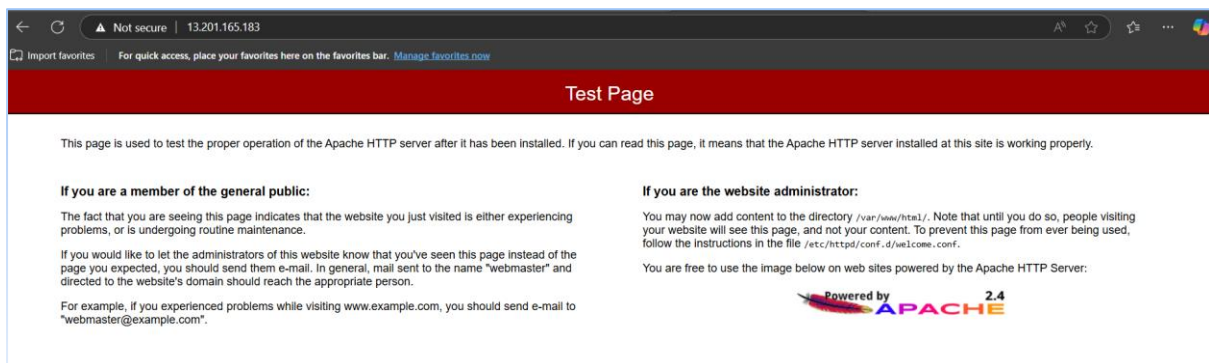


- Open a new tab in the browser and paste the newly allocated IP address: '13.201.165.183'.

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**Step 5: Stop/Start the EC2 Instance again to verify Elastic IP persistence.**

- Stop and start the instance again.
- Visit the **Elastic IP** in browser.
- The website should still load – IP remains unchanged.
- IP address is : '**13.201.165.183**'.

