Mini Project: Hosting a Website on AWS EC2

1. Introduction

This mini project demonstrates how to host a static website on an AWS EC2 instance using Apache web server. The project includes connecting to the EC2 instance using SSH, setting up a web server, placing an HTML file, and accessing the site using the public IP address.

2. Steps Performed

1. 1. Launch an EC2 instance (Ubuntu) from AWS Management Console.
2. 2. Download the private key (.pem) file and set permissions using: chmod 400 <key-name>.pem
3. 3. Connect to EC2 instance using SSH:
   ssh -i <key-name>.pem ubuntu@<public-ip>
4. 4. Update package manager and install Apache:
   sudo apt update && sudo apt install apache2
5. 5. Start Apache server:
   sudo systemctl start apache2
6. 6. Ensure Apache runs on boot:
   sudo systemctl enable apache2
7. 7. Navigate to the web root directory:
   cd /var/www/html
8. 8. Create or edit index.html:
   sudo nano index.html
   (Paste the HTML code here)
9. 9. Save and exit. Ensure file is readable and Apache is running.
10. 10. Open browser and go to: http://<your-ec2-public-ip> to view the hosted website.
11. 11. Make sure the Security Group allows inbound HTTP (port 80) traffic from 0.0.0.0/0.

3. Important Notes

• Ensure the HTML file is named index.html and placed in /var/www/html.

• Always use http://<your-public-ip> (not https).

• The Apache service must be running, and security groups must be properly configured.

4. INDEX HTML CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>My First Mini Project - Hosted Website</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background: #f4f4f4;
      color: #333;
      text-align: center;
      padding: 50px;
    }
    header {
      background: #0077cc;
      color: white;
      padding: 20px 0;
      margin-bottom: 40px;
    }
    section {
      background: white;
      padding: 30px;
      border-radius: 10px;
      width: 80%;
      max-width: 800px;
      margin: auto;
      box-shadow: 0 4px 10px rgba(0, 0, 0, 0.1);
    }
    footer {
      margin-top: 40px;
      color: #555;
    }
  </style>
</head>
<body>
```

```
  <header>
    <h1>Welcome to My First Hosted Website</h1>
    <p>Mini Project - Web Hosting on AWS EC2</p>
  </header>

  <section>
    <h2>About This Project</h2>
    <p>This is my first mini project where I learned how to host a static website using an
AWS EC2 instance with Apache web server.</p>
    <p>I connected via SSH, uploaded this HTML file, and configured everything
myself!</p>
  </section>

  <footer>
    <p>Created by AMAN | © 2025</p>
  </footer>
</body>
</html>
```

5.OUTPUT