**Hosting a website on AMAZON AWS Console (EC2 Instance)**

**Steps are as follows :-**

**Step 1: Launching the EC2 Instance**

1. **Log in to AWS Console**  
   Go to [AWS Management Console](https://aws.amazon.com/console/) and log in.
2. **Create a Key Pair**
   * Navigate to **EC2 Dashboard** and start the process of launching a new instance.
   * During the configuration, create a **Key Pair** by selecting **Create New Key Pair**.
   * Name your key (e.g., my-key) and download the .pem file. This file will be used for authentication via SSH.
3. **Configure and Launch the Instance**
   * **AMI:** Select **Amazon Linux 2** as your Amazon Machine Image (AMI).
   * **Instance Type:** Choose t2.micro (eligible for the free tier).
   * **Configure Security Group:**
     + Add rules to allow **SSH (port 22)** and **HTTP (port 80)** traffic.
   * **Launch the Instance.**
4. Once the instance is running, note the **IPv4 Public Address** from the EC2 Dashboard. This will be used to connect to the instance.

**Step 2: Connect to the Instance Using MobaXterm**

1. Open **MobaXterm** on your local machine.
2. Click on **Session > SSH**, then fill out the following details:
   * **Hostname:** Enter your EC2 instance’s **IPv4 Public Address**.
   * **Username:** Use ec2-user (for Amazon Linux 2).
3. **Configure SSH Authentication:**
   * Go to the **Advanced SSH Settings** tab.
   * In the **Use private key** section, browse and attach the .pem file you downloaded earlier.
4. Click **OK** to connect to the instance.

**Step 3: Install Apache Web Server**

Once you’re connected to the EC2 instance, execute the following commands to set up the web server:

1. Switch to the root user:

bash

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sudo su

1. Update the instance:

bash

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yum update -y

1. Install the Apache web server (httpd):

bash

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yum install httpd -y

**Step 4: Create the index.html File**

1. Navigate to the web server's default directory:

bash

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cd /var/www/html

1. Create a basic index.html file using the vi editor:

bash

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vi index.html

1. Press i to enter **Insert Mode** and type the content of your index.html file. For example:

html

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<html>

<h1>It Works!</ht>

</html>

1. Press Esc and type :wq to save and exit the editor.

**Step 5: Start the Apache Web Server**

Start the Apache service to serve your index.html file:

bash

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service httpd start

**Step 6: Configure Security Group for Public Access**

1. Return to the AWS EC2 console and select your instance.
2. Go to **Security Groups > Inbound Rules** and add a new rule:
   * **Type:** HTTP
   * **Protocol:** TCP
   * **Port Range:** 80
   * **Source:** Anywhere (0.0.0.0/0 for IPv4)
3. Save the rule to allow public access to your web server.

**Step 7: Access Your Hosted Website**

1. Open your browser and enter your **EC2 instance’s IPv4 Public Address** (e.g., http://<your-ec2-public-ip>).
2. You should see the content of your index.html file, confirming that your website is successfully hosted on the cloud.

**Optional: Verify and Troubleshoot**

* Ensure that the Apache service is running:

bash

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service httpd status

* Restart the service if needed:

bash

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service httpd restart

* Check the index.html file for errors if the page does not load.

OUTPUT :- 