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**Exercise Web Hosting on EC2**

**Aim:**

To develop and work with the web hosting on EC2 (Windows, Linux) using AWS.

## ****Part 1: Windows EC2 Instance****

### 1. ****Launch a Windows EC2 Instance****

1. **Log in to AWS Management Console:**
   * Go to [AWS Management Console](https://aws.amazon.com/console/).
2. **Navigate to EC2 Dashboard:**
   * Click on **Services** > **EC2**.
3. **Launch Instance:**
   * Click **Launch Instance**.
   * Choose an Amazon Machine Image (AMI): Select a Windows Server AMI (e.g., Windows Server 2019).
   * Choose an Instance Type: Select t2.micro for the free tier.
   * Configure Instance Details: Use default settings or customize as needed.
   * Add Storage: Use default settings or adjust if necessary.
   * Add Tags: (Optional) Add tags for better management.
   * Configure Security Group:
     + Create a new security group or select an existing one.
     + Add rules for HTTP (port 80) and RDP (port 3389).
   * Review and Launch: Click **Review and Launch**. Download the key pair if you don't have one, then click **Launch**.

### 2. ****Connect to the Windows Instance****

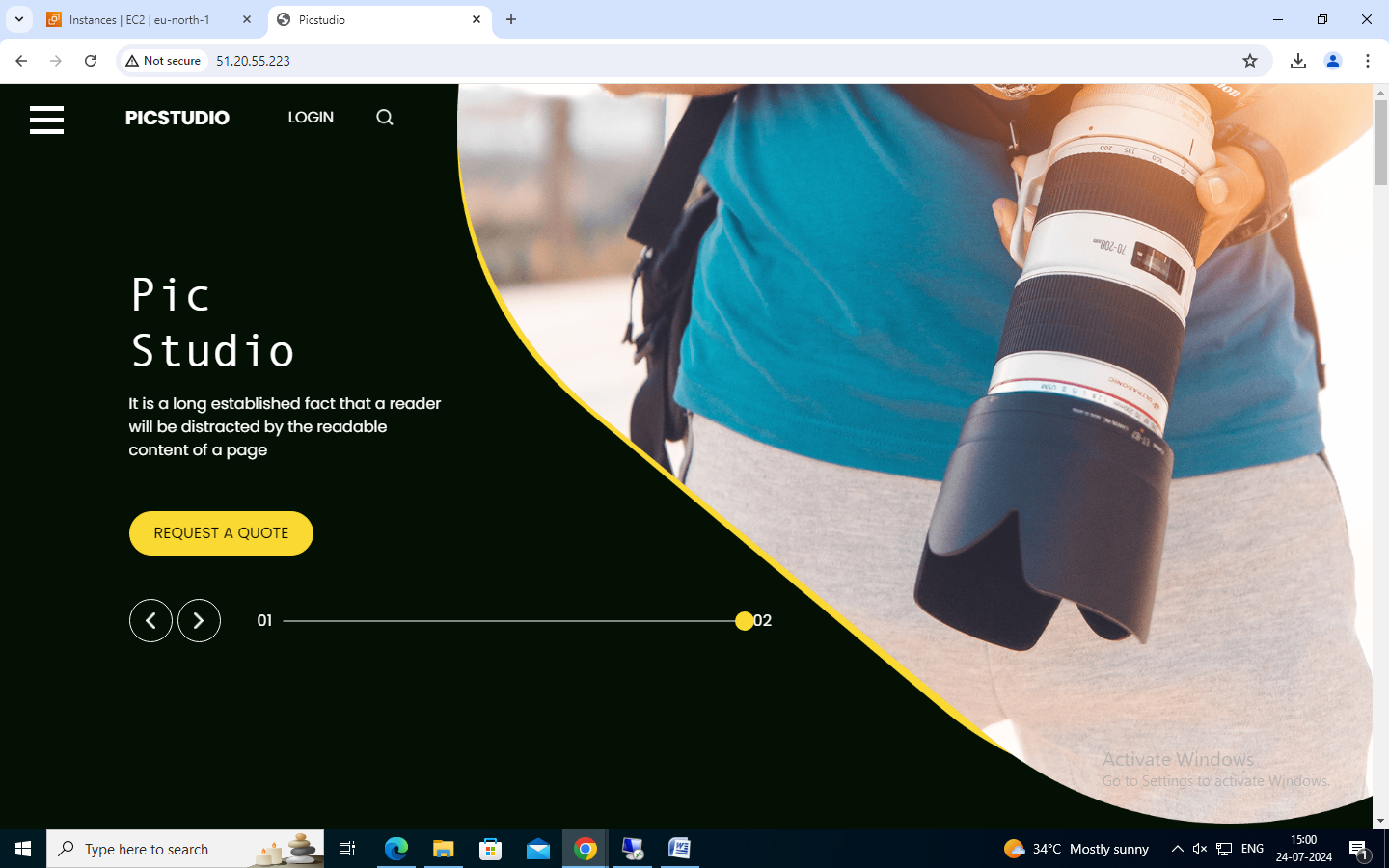
1. **Retrieve the Administrator Password:**
   * Go to the **Instances** section in the EC2 Dashboard.
   * Select your Windows instance, click **Connect**, then **Get Password**.
   * Upload your key pair file (.pem) to decrypt the password.
2. **Connect via RDP:**
   * Download the Remote Desktop Protocol (RDP) file from the EC2 Dashboard.
   * Open the RDP file and enter the decrypted password to connect to your Windows instance.

### 3. ****Set Up IIS (Internet Information Services)****

1. **Install IIS:**
   * Open **Server Manager** from the Start menu.
   * Click **Manage** > **Add Roles and Features**.
   * Click **Next** until you reach the **Server Roles** section.
   * Check **Web Server (IIS)** and proceed with the installation.
   * Complete the wizard and wait for IIS to install.
2. **Deploy the Website:**
   * Open **IIS Manager** from the Start menu or by running inetmgr.
   * In the left pane, right-click **Sites** and select **Add Website**.
   * Fill in the **Site Name**, **Physical Path** (where your website files will be stored), and **Binding** (e.g., HTTP on port 80).
   * Click **OK** to create the website.
3. **Upload Website Files:**
   * Use RDP to access the Windows instance’s file system.
   * Copy your website files to the directory specified in the **Physical Path** field.

### 4. ****Test the Website****

1. **Open a Web Browser:**
   * Navigate to the public IP address of your Windows instance.
   * Verify that your website is accessible.



## ****Part 2: Linux EC2 Instance****

### 1. ****Launch a Linux EC2 Instance****

1. **Log in to AWS Management Console:**
   * Go to [AWS Management Console](https://aws.amazon.com/console/).
2. **Navigate to EC2 Dashboard:**
   * Click on **Services** > **EC2**.
3. **Launch Instance:**
   * Click **Launch Instance**.
   * Choose an Amazon Machine Image (AMI): Select a Linux AMI (e.g., Ubuntu Server 20.04).
   * Choose an Instance Type: Select t2.micro for the free tier.
   * Configure Instance Details: Use default settings or customize as needed.
   * Add Storage: Use default settings or adjust if necessary.
   * Add Tags: (Optional) Add tags for better management.
   * Configure Security Group:
     + Create a new security group or select an existing one.
     + Add rules for HTTP (port 80) and SSH (port 22),All TCP.
   * Review and Launch: Click **Review and Launch**. Download the key pair if you don't have one, then click **Launch**.

### 2. ****Connect to the Linux Instance****

1. **Get the Public IP Address:**
   * Go to the **Instances** section in the EC2 Dashboard.
   * Note the public IP address of your Linux instance.
2. **Connect via SSH:**
   * Open a terminal (or use an SSH client like PuTTY).
   * Connect using the following command (replace path/to/key.pem with your key file and ec2-user@public-ip with the appropriate username and IP): 3. **Install and Configure Apache**
3. **Install and Start Apache:**
   * Run the following commands:

sudo su

apt-get install apache2

apt-get update

1. **Upload Website Files Using WinSCP:**
   * **Install WinSCP:**
     + Download and install WinSCP from WinSCP’s website.
   * **Connect to Your Linux Instance:**
     + Open WinSCP and create a new session.
     + Tab->new tab->SFT->hostname: Public IP, username: ubuntu, password: ubuntu->advanced->SSH->Authentication->private key->browse->upload ppk file->Ok ->Login
   * **Upload Files:**
     + Navigate to /var/www/html/index.html on your Linux instance.
     + Upload your website files to this directory.
2. **Adjust Permissions:**
   * Set appropriate permissions for your website files:cd /var/www/html

ls

vi index.html

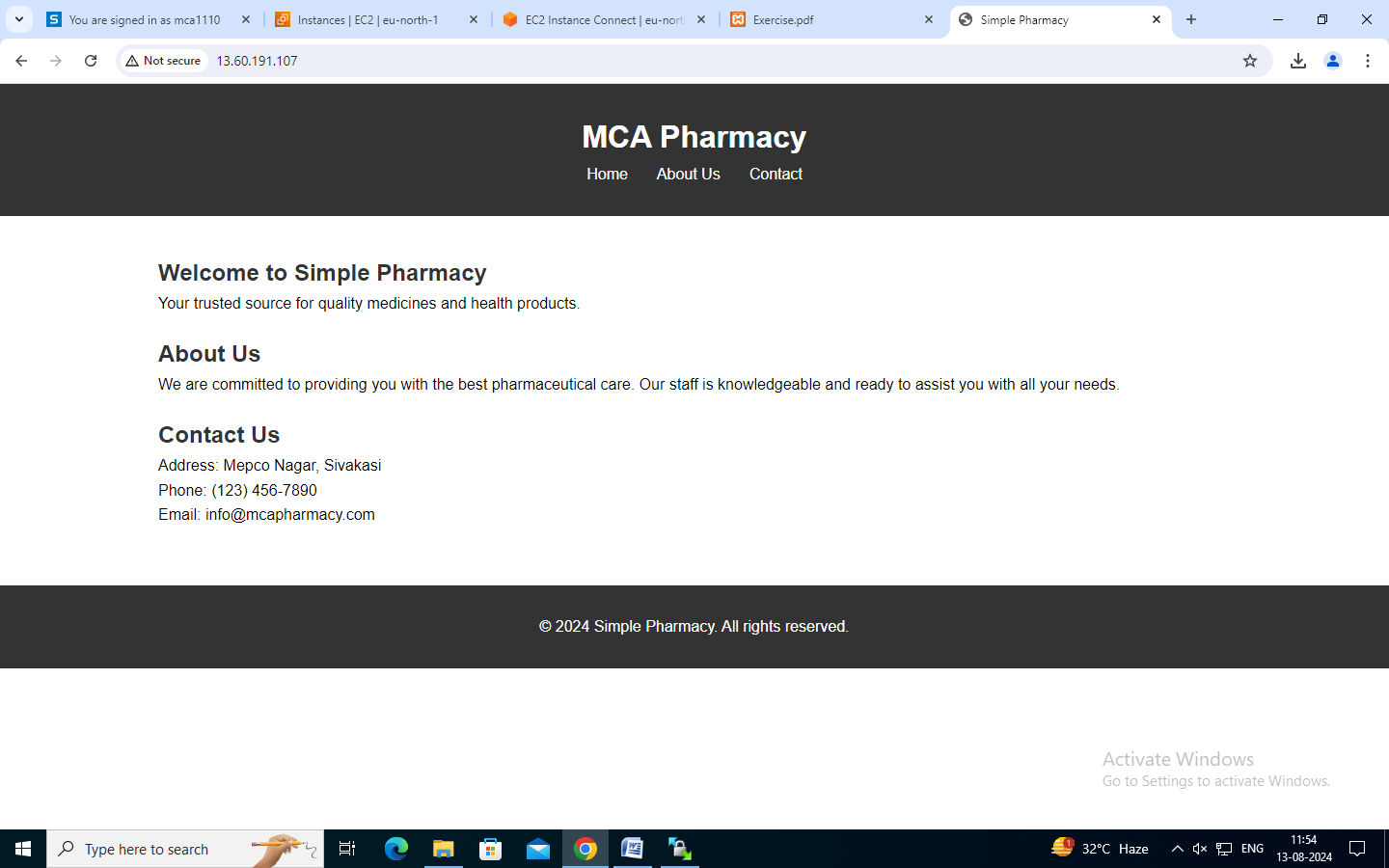
cd

chmod 777 /var/www/html/index.html

ls –l /var/www/html

### 4. ****Test the Website****

1. **Open a Web Browser:**
   * Navigate to the public IP address of your Linux instance.
   * Verify that your website is accessible.



**Conclusion**

Thus the above web hosting on EC2 (Windows, Linux) has been developed and executed successfully.