**PROJECT 2:**

**Creating a Custom Amazon Machine Image (AMI)**

* **Launch a New EC2 Instance**
* **Install http on the new instance, enable the http service to start at boot.**
* **Create a New AMI from customised instance and name the AMI MicroDegreeWeb**
* **Launch a New Instance Using the Custom AM**
* **Verify that http is running**

**STEPS**

**Step 1: Launch a New EC2 Instance**

1. Log in to the AWS Management Console.
2. Navigate to **EC2 Dashboard** → **Instances** → **Launch Instance**.
3. Select the **Amazon Machine Image (AMI)** you want (e.g., Amazon Linux 2).
4. Choose an **instance type** (e.g., t2.micro for free tier).
5. Configure **key pair, security group** (allow HTTP on port 80), and **storage** as needed.
6. Click **Launch**.

**Step 2: Install HTTP and Enable it**

* Now connect EC2 instances to terminal
* Now update the system & install HTTP (Apache)

**sudo yum update -y**

**sudo yum install httpd -y**

* Enable & start HTTP service

**sudo systemctl enable httpd**

**sudo systemctl start httpd**

* Verify HTTP service is running

**sudo systemctl status httpd**

Step 3: Create a New AMI

1. Go to the EC2 Dashboard → Instances.
2. Select the instance you just customized.
3. Click Actions → Image and templates → Create Image.
4. Provide a name, e.g., MicroDegreeWeb, and description.
5. Click Create Image. AWS will start creating the AMI.
6. Wait for the AMI to appear under Images → AMIs in the EC2 Dashboard.

**Step 4: Launch a New Instance Using the Custom AMI**

1. Navigate to **Images** → **AMIs**.
2. Select the MicroDegreeWeb AMI you just created.
3. Click **Launch Instance from Image**.
4. Configure the instance (e.g., instance type, security group, key pair).
5. Click **Launch**.

**Step 5: Verify HTTP Service**

* Connect new launched instance to terminal
* Check if HTTP service is running

**sudo systemctl status httpd**

* Open the browser and access the instance's public IP to confirm HTTP is serving content.