**AWS Hands-on Lab: EC2, S3, VPC (Using AWS Console)**

**1. Launch EC2 Instance**

**Step 1:** Go to EC2 Dashboard

Open AWS Console > Search EC2 > Click Instances

**Step 2:** Launch Instance

Click Launch Instance

Name: MyEC2

AMI: Choose Amazon Linux 2023 or Ubuntu

Instance Type: t2.micro (Free tier)

Key Pair: Create new or use existing (e.g., mykey.pem)

**Step 3:** Network Settings

VPC: MyVPC

Subnet: MySubnet

Auto-assign Public IP: Enable

**Step 4**: Firewall (Security Group)

Create new SG: MySG

Allow SSH (port 22) from your IP

Allow HTTP (port 80) for web server (optional)

**Step 5:** Launch

Click Launch Instance

Wait for it to be in running state

**Step 6:** Connect to EC2

Select instance > Click Connect > Select SSH

Follow the instructions using your .pem file

**2. Create an S3 Bucket**

**Step 1:** Open S3 Dashboard

AWS Console > Search S3 > Click Create bucket

**Step 2:** Configure Bucket

Bucket name: my-s3-bucket-aswini (must be globally unique)

Region: Asia Pacific (Mumbai)

Uncheck “Block all public access” (if hosting public content)

Enable versioning (optional)

Click Create Bucket

**Step 3:** Upload a File

Open your bucket > Click Upload > Add files

Click Upload

**Step 4 (Optional):** Enable Static Website Hosting

Go to Properties > Scroll to Static Website Hosting

Enable and enter index document: index.html

**3. Create a VPC (Virtual Private Cloud)**

**Step 1:** Go to VPC Dashboard

Open AWS Console > Search for VPC in the search bar

Click on VPC Dashboard

**Step 2:** Create a VPC

Click Create VPC

Select VPC only

Name tag: MyVPC

IPv4 CIDR block: 10.0.0.0/16

Leave default for others

Click Create VPC

**Step 3:** Create Subnet

Go to Subnets > Create Subnet

Name tag: MySubnet

VPC: MyVPC

Availability Zone: Choose any (e.g., ap-south-1a)

IPv4 CIDR: 10.0.1.0/24

Click Create Subnet

**Step 4**: Create Internet Gateway (IGW)

Go to Internet Gateways > Create

Name: MyIGW

Click Create Internet Gateway

Then click Attach to VPC > Select MyVPC

**Step 5:** Route Table

Go to Route Tables > Select the one with your VPC

Name tag: MyRouteTable

Edit Routes > Add route: 0.0.0.0/0 target: your MyIGW

Save

Click on Subnet Associations > Edit Subnet Associations

Select your subnet (MySubnet) and save