

# **PROJECT – creating a vpc using aws**

## **AWS VPC Creation and Web Server Deployment Project**

### **Project Overview**

This project was completed as part of a hands-on lab in a Coursera course on AWS fundamentals. The goal was to understand and implement the process of creating a Virtual Private Cloud (VPC) and launching a web server instance within it. This allowed me to get practical experience with foundational networking concepts in AWS.

---

### **Tools & Services Used**

- **Amazon Web Services (AWS)**
    - **VPC**
    - **EC2 (Elastic Compute Cloud)**
    - **Subnets**
    - **Internet Gateway**
    - **Route Tables**
    - **Security Groups**
  - **Linux (Amazon Linux 2)**
  - **Coursera Hands-On Lab Environment**
- 

### **What I Did**

1. Created a custom VPC named **my-vpc** with a CIDR block of **10.0.0.0/16**.
2. Set up subnets:
  - Created a public subnet for internet-facing resources.
3. Attached an Internet Gateway and updated the route table to allow outbound traffic.
4. Configured a Security Group to allow inbound HTTP (port 80) and SSH (port 22) access.
5. Launched an EC2 instance (Amazon Linux 2) in the public subnet.
6. Installed a basic web server (Apache/HTTPD) on the instance.

## 7. Verified public accessibility of the web server using the EC2 public IP.

The screenshot displays two AWS management console pages: the VPC dashboard and the EC2 Instances page.

**VPC Dashboard:** Shows the "Your VPCs" section with two entries: "my-vpc-vpc" (VPC ID: vpc-04cea8a390c5f1931, State: Available, Block Public: Off, IPv4 CIDR: 10.0.0.0/16, IPv6 CIDR: -) and another entry (VPC ID: vpc-0a2c41ad1336c1900, State: Available, Block Public: Off, IPv4 CIDR: 172.31.0.0/16, IPv6 CIDR: -). The "Actions" dropdown shows options like "Create VPC", "Edit", and "Delete".

**EC2 Instances:** Shows the "Instances (1/1) info" section with one instance listed: "my web server" (Instance ID: i-0172a3d126c9fb51e, Instance state: Running, Status check: 3/3 checks passed, Instance type: t3.micro, Availability Zone: eu-north-1b, Public IPv4 DNS: 10.154.150, Public IPv4 address: 10.154.150, Elastic IP: -). The "Actions" dropdown includes "Launch instances".

### ✓ Key Takeaways

- Understood how to isolate resources within a custom VPC.
- Gained practical experience setting up routing, gateways, and security in AWS.
- Successfully deployed a web server in a secure, scalable environment.