Lab 5: Create Two AWS EC2 Ubuntu Instances to Establish SSH Connection and SCP Files

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Objective

Create two Ubuntu EC2 instances on AWS, establish SSH connection from one to another, and transfer files using SCP.

Part 1: Launch Two EC2 Ubuntu Instances

Step 1: Login to AWS Console

1. Go to https://aws.amazon.com
2. Click **Sign In to the Console**

Step 2: Launch EC2 Instances

Repeat these steps twice to create two instances.

1. Search for **EC2** in the Services menu.
2. Click **Launch Instance**.
3. Enter Name: `Instance-1` (repeat as `Instance-2` for the second one).
4. Choose Amazon Machine Image (AMI): **Ubuntu Server 20.04 LTS**.
5. Choose Instance Type: **t2.micro** (Free Tier eligible).
6. Create a new Key Pair: `devuser-key` (Download the .pem file).
7. Configure security group:
   o Allow SSH (Port 22) from **My IP** or **Anywhere** (for easier testing).
8. Click **Launch Instance**.

Part 2: Connect to Instances via SSH

Step 1: Open Terminal and Change File Permission

```
chmod 400 devuser-key.pem
```

Step 2: Connect to Instance-1

```
ssh -i devuser-key.pem ubuntu@<Public-IP-of-Instance-1>
```

Step 3: Connect to Instance-2

Open a new terminal or tab:

```
ssh -i devuser-key.pem ubuntu@<Public-IP-of-Instance-2>
```

Part 3: Setup SSH Access from Instance-1 to Instance-2

Step 1: On Instance-1, generate SSH key pair

```
ssh-keygen -t rsa -b 2048
```

(Press Enter to accept all defaults)

Step 2: Copy the public key to Instance-2

From Instance-1, run:

```
ssh-copy-id -i ~/.ssh/id_rsa.pub ubuntu@<Private-IP-of-Instance-2>
```

If `ssh-copy-id` is not available, use manual method:

```
cat ~/.ssh/id_rsa.pub
```

Copy the output.

Then, on Instance-2:

```
nano ~/.ssh/authorized_keys
```

Paste the public key and save.

Part 4: Test SSH Connection from Instance-1 to Instance-2

On Instance-1:

```
ssh ubuntu@<Private-IP-of-Instance-2>
```

You should connect without password prompt.

Part 5: Transfer File Using SCP

Step 1: Create a Test File on Instance-1

```
echo "This is a test file" > testfile.txt
```

Step 2: Copy File to Instance-2

```
scp testfile.txt ubuntu@<Private-IP-of-Instance-2>:/home/ubuntu/
```

Step 3: Verify on Instance-2

Login to Instance-2 and run:

```
cat /home/ubuntu/testfile.txt
```

You should see: `This is a test file`