Experiment 6

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Branch: CSE **Section/Group: KRG-IOT-1-B**
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Subject Name: Cloud IoT **Subject Code: 22CSP-367**

1. **Aim:** Create a cloud-based back-end to support IoT applications by setting up EC2 servers with different operating systems.

2. **Objective:** To create a cloud-based back-end for IoT applications by setting up Amazon EC2 servers with different operating systems.

3. **Hardware / Software Used:** Operating System, IOT Sensors (if integrated), Internet Connectivity, AWS Account, SSH-Enabled Device.

4. **Procedure:**
   1. Log into AWS → Go to Services → Search & Click EC2.
   2. Click Instances → Launch Instances.
   3. Enter Instance Name (e.g., IoT Server).
   4. Select AMI (Operating System).
   5. Choose Instance Type (t2.micro for free tier).
   6. Click Create Key Pair, download the .pem file.
   7. Keep Network & Storage settings default or modify as needed.
   8. Click Launch Instance.
   9. Go to Instances → Verify instance creation.
   10. Take a screenshot of the Launch an Instance | EC2 | ap-south-1 page.

5. **Result:**

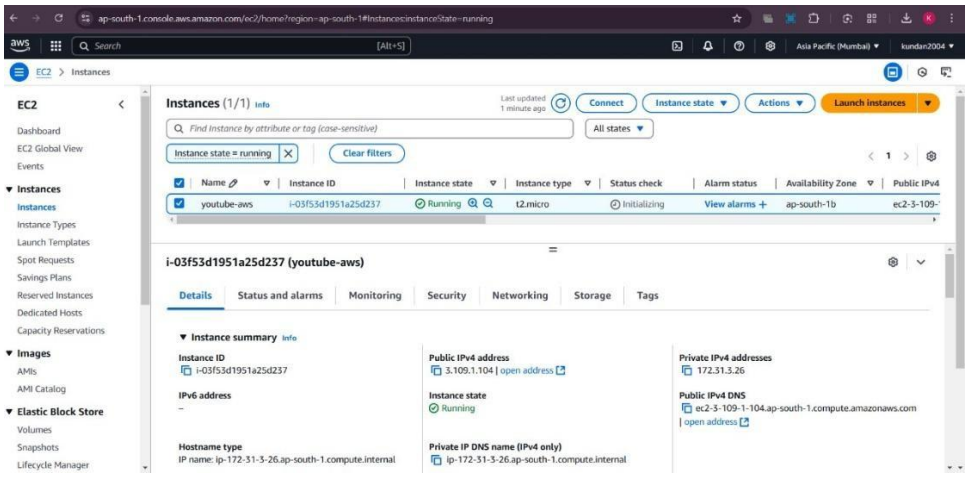

Fig 1. EC2

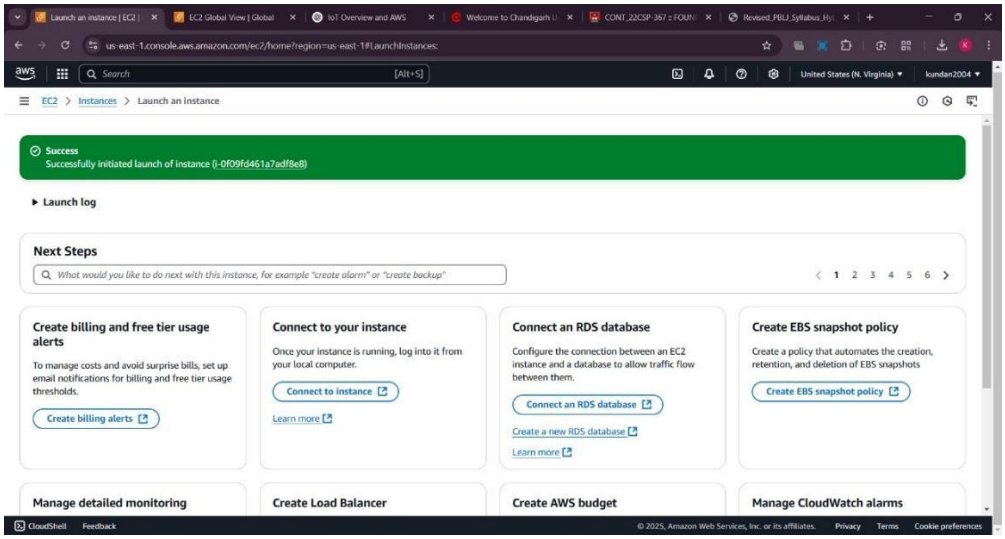

Fig 2. Instance created

6. Learning Outcomes:

1. Choose the right AMI, instance type, and storage for deployment.
2. Manage AWS Free Tier resources efficiently to avoid unexpected costs.
3. Develop skills in monitoring instance performance and troubleshooting issues.