Exp.No.	01	Cloud Account Setup and Services Overview	Year/Sem	2 / IV
Date	08/03/2025		Branch	CSE

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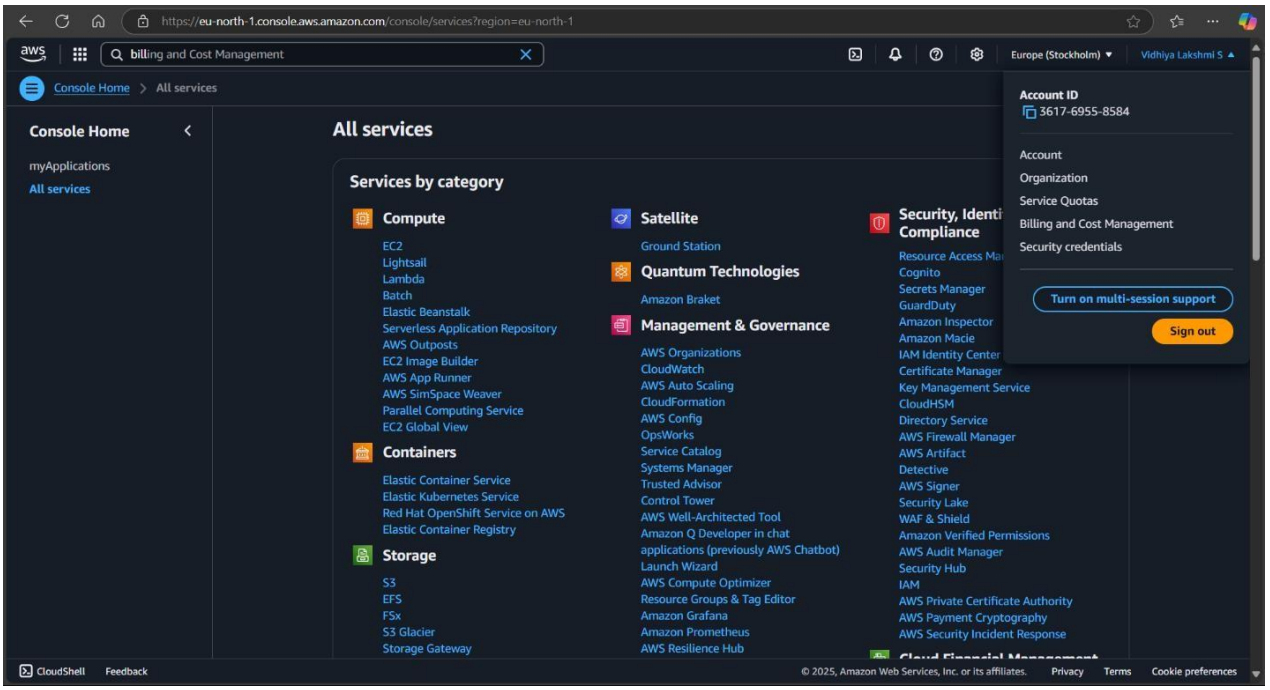
Aim:

To create an AWS cloud account and explore its various services.

Procedure:

1. Create an AWS Account
    - Go to AWS Official Website.
    - Click on "Create an AWS Account" and enter the required details (email, password, account name).
    - Choose "Personal" or "Business" account type and provide billing information.
    - Complete identity verification using a phone number.
    - Select a support plan (Free Tier recommended for beginners).
    - Log in to the AWS Management Console.

2. Exploring AWS Services
    - Navigate through the AWS Management Console to explore services.
    - Access different categories such as Compute, Storage, Database, Networking, and Security.
    - Experiment with services like EC2 (Elastic Compute Cloud), S3 (Simple Storage Service), and RDS (Relational Database Service) using Free Tier options.



AWS:

Amazon Web Services (AWS) is a cloud computing platform that provides on-demand computing power, storage, and various services for businesses and developers.

Services in AWS:

i. Compute & Networking

These services provide cloud computing power and networking capabilities to support scalable applications.

- Amazon EC2 (Elastic Compute Cloud) – Virtual servers in the cloud.
- AWS Lambda – Serverless computing service.
- Amazon VPC (Virtual Private Cloud) – Customizable cloud networks.

ii. Storage & Content Delivery

These services handle scalable storage, data backup, and content delivery.

- Amazon S3 (Simple Storage Service) – Scalable object storage.
- Amazon EBS (Elastic Block Store) – Block storage for EC2.
- Amazon CloudFront – Global content delivery network (CDN).

iii. Database

AWS provides managed databases for different workloads, from relational to NoSQL and data warehousing.

- Amazon RDS (Relational Database Service) – Managed relational databases.
- Amazon DynamoDB – Fully managed NoSQL database.
- Amazon Redshift – Data warehouse for big data analytics.

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vi. Deployment & Management

AWS simplifies application deployment and infrastructure management.

- AWS Elastic Beanstalk – Automated deployment service.
- AWS CloudFormation – Infrastructure as code (IaC) service.
- AWS Ropeworks – Configuration management using Chef and Puppet.

vii. Analytics & AI

AWS provides powerful analytics tools to process and analyze large datasets.

- AWS Glue – ETL (Extract, Transform, Load) service.
- Amazon Kinesis – Real-time data streaming.
- Amazon Quick Sight – Business intelligence and visualization.

viii. Mobile & Application Services

AWS provides tools to build, deploy, and manage mobile applications.

- AWS Amplify – Full-stack mobile and web app development.
- Amazon Cognito – User authentication and identity management.
- Amazon API Gateway – API management service.

Applications of AWS:

1. Web Hosting – Hosting scalable websites and applications.
2. Big Data Analytics – Processing large datasets for insights.
3. AI & Machine Learning – Training and deploying ML models.
4. IoT (Internet of Things) – Connecting and managing IoT devices.
5. Gaming – Powering multiplayer and cloud gaming applications.
6. Backup & Disaster Recovery – Secure storage and failover solutions.

Output:

Launching an EC2 Instance:

1. Opened AWS Console → Clicked "Services" → Selected EC2.

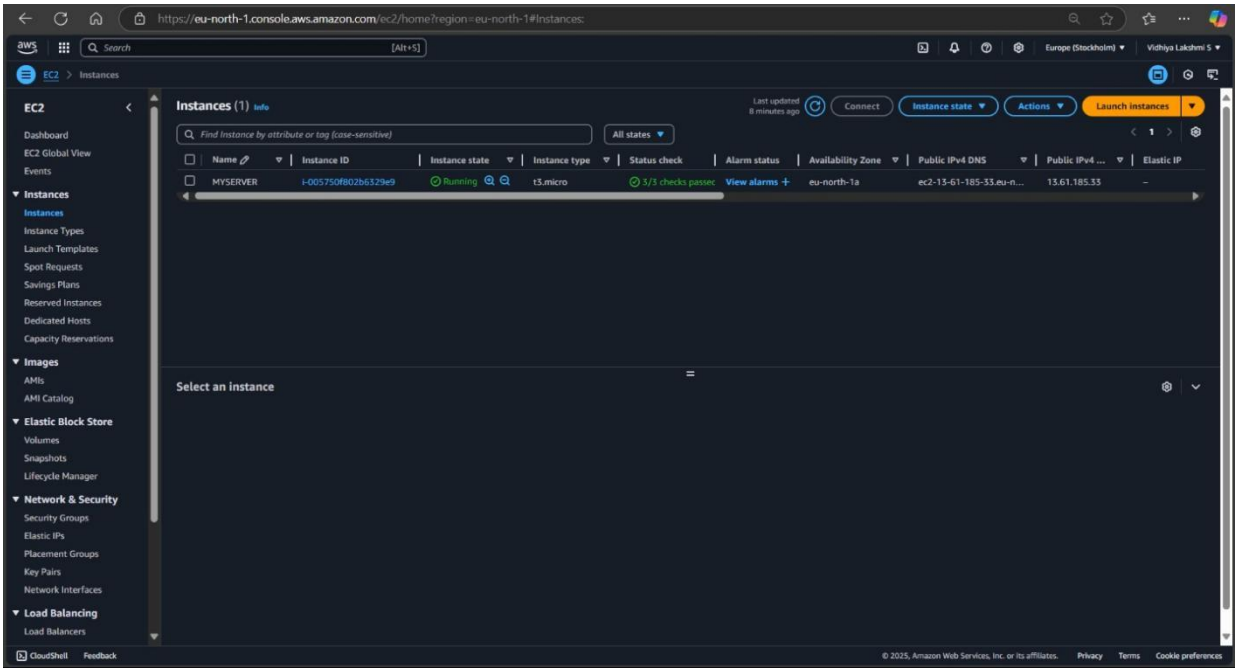
2. Clicked "Launch Instance" → Entered instance name (MYSERVER).

3. Selected Amazon Linux 2023 (Free Tier eligible) as the OS.

4. Chose t2.micro as the instance type.

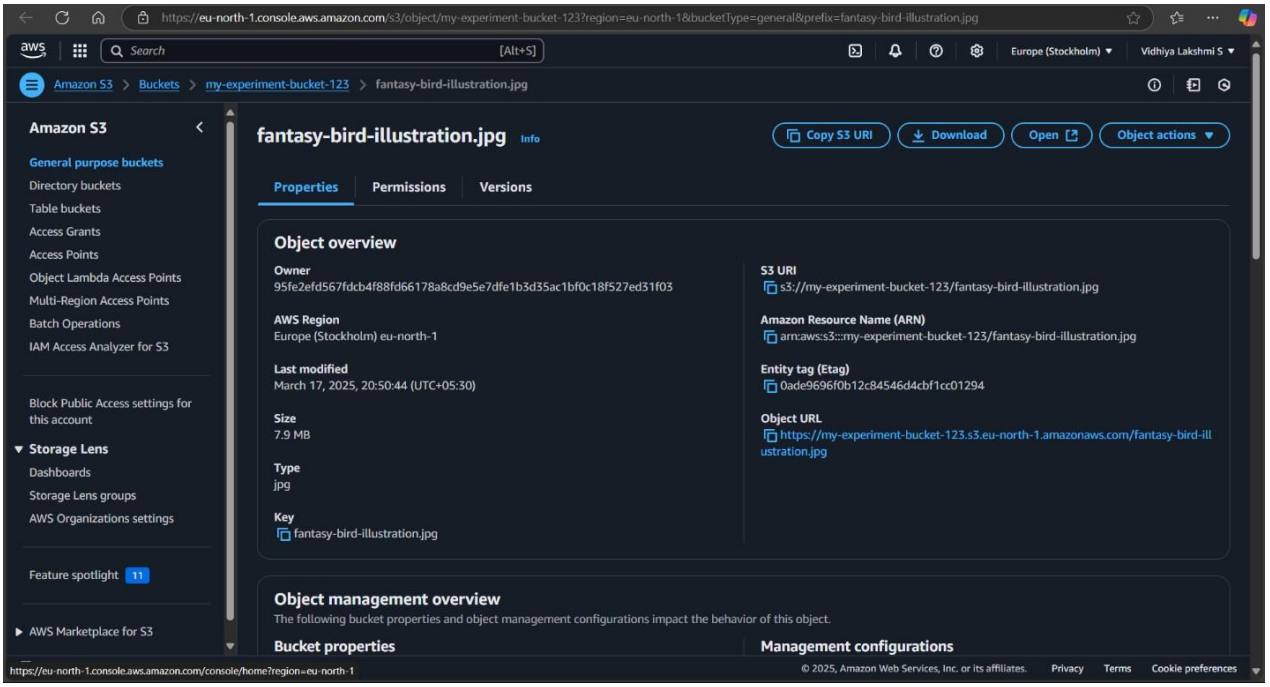
5. Created a key pair and downloaded the .pem file for secure access.

6. Kept default network settings and launched the instance.



Creating an S3 Bucket and Uploading a File

1. Opened AWS Console → Clicked "Services" → Selected S3.
2. Clicked "Create Bucket" and entered a unique name (my-experiment-bucket-123).
3. Kept default security settings (blocked public access).
4. Clicked "Create Bucket" to finalize.
5. Clicked on the bucket → Clicked "Upload" → Added a file (myfile.jpg).
6. Uploaded the file successfully and verified it in the S3 bucket.



Conclusion:

AWS provides a wide range of cloud services that enable businesses and developers to build, deploy, and manage applications efficiently. Exploring AWS services gives hands-on experience in cloud computing, storage, networking, and security.

References:

Result:

Successfully created an AWS account and explored various AWS services.