

Cloud Computing & DevOps

A. Cloud Basics

1. **Cloud Platforms**
 - AWS
 - Azure
2. **Compute Services**
 - EC2
 - VM setup
3. **IAM Security**
 - Users
 - Roles

Output: EC2 setup demo

B. Storage & Databases

1. **Object Storage**
 - S3
2. **Managed Databases**
 - RDS
 - DynamoDB basics

Output: Cloud storage project

C. DevOps Essentials

1. **Git & GitHub**
 - Branching
 - Pull requests
2. **CI/CD Pipeline**
 - Jenkins basics
 - Automated builds

Output: CI pipeline workflow

D. Containers (Docker)

1. **Docker Basics**
 - Images
 - Containers
2. **Dockerfile Creation**
 - Layering
 - Build process

Output: Dockerized application

E. Kubernetes

1. K8s Architecture

- Pods
- Nodes

2. Deployments

- Scaling
- Rolling updates

Output: Microservice deployment