

Master Program in AWS Cloud-DevOps

Month 1: AWS Cloud Fundamentals and Infrastructure

Week 1-2: Introduction to AWS and Cloud Concepts

- Overview of AWS services
- Understanding cloud computing models
- AWS global infrastructure and regions

Week 3-4: Compute Services on AWS

- Amazon EC2 (Elastic Compute Cloud)
- AWS Lambda for serverless computing
- Auto Scaling and Load Balancing

Month 2: AWS Storage, Databases, and Networking

Week 1-2: Storage Services on AWS

- Amazon S3 (Simple Storage Service)
- Amazon EBS (Elastic Block Store)
- AWS Glacier for archival storage

Week 3-4: AWS Databases

- Amazon RDS (Relational Database Service)
- Amazon DynamoDB (NoSQL Database)
- Database scaling and backup strategies

Week 5-6: Networking on AWS

- Amazon VPC (Virtual Private Cloud)
- Route 53 for DNS management
- Networking best practices on AWS

Month 3: DevOps Practices and Tools

Week 1-2: Introduction to DevOps

- Principles and culture of DevOps
- CI/CD concepts and practices
- DevOps tools overview (e.g., Jenkins, Git)

Week 3-4: Infrastructure as Code (IaC) with AWS CloudFormation

- Basics of CloudFormation
- Creating and managing stacks
- IaC best practices

Month 4: Advanced AWS Services, Security, and Final Project

Week 1-2: Advanced AWS Services

- AWS ECS (Elastic Container Service)
- AWS Lambda with API Gateway
- AWS Kinesis for real-time data processing

Week 3-4: Security on AWS

- Identity and Access Management (IAM)
- AWS Key Management Service (KMS)
- AWS Security Best Practices

Week 5-6: Final Project and Exam Preparation

- Participants work on a comprehensive AWS DevOps project
- Project presentation and evaluation
- Review of key concepts and exam preparation