

React Course Overview

Page 1: AWS Basics

1. Introduction to AWS:

- Amazon Web Services: A cloud computing platform by Amazon.
- Provides compute power, storage, databases, networking, etc.

2. Core Services:

- EC2: Virtual servers (Elastic Compute Cloud).
- S3: Scalable object storage (Simple Storage Service).
- RDS: Managed relational database service.
- Lambda: Serverless computing.
- VPC: Virtual Private Cloud for networking.

3. IAM (Identity and Access Management):

- Manage users, groups, and permissions.
- Use roles and policies for access control.

4. Regions and Availability Zones:

- AWS has global data centers divided into regions and AZs.
- Deploy applications close to users.

5. AWS CLI & SDKs:

- Command-line tools and programming libraries for AWS access.
- Automate resource management.

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6. Pricing Models:

- Pay-as-you-go, reserved, and spot instances.
- AWS Free Tier for new users.

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Page 2: AWS Advanced Topics

1. Auto Scaling and Load Balancing:

- Auto Scaling: Automatically adjust instance count.
- ELB: Distribute traffic across instances.

2. CloudFormation:

- Infrastructure as Code (IaC).
- Define resources in templates (YAML/JSON).

3. Monitoring and Logging:

- CloudWatch: Monitor metrics and logs.
- CloudTrail: Track user and API activity.

4. Security Best Practices:

- Use IAM roles, MFA, and least privilege.
- Encrypt data in transit and at rest.

5. Databases:

- DynamoDB: NoSQL database.
- Aurora: High-performance relational DB.

6. DevOps on AWS:

- CodePipeline: CI/CD workflows.

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- CodeBuild & CodeDeploy for automation.

7. Certification Paths:

- Foundational: AWS Cloud Practitioner.
- Associate: Solutions Architect, Developer, SysOps.
- Professional & Specialty: Advanced certifications.