AWS ROADMAP

AWS lo chala services untay , so anni dantlo professional avalsina avasaram ledu , important vi neruchukunte saripotundhi (Document Last lo mention chesanu)

Fundamentals

- Regions and Availability Zones
- Identity and Access Management (IAM)
- Virtual Private Cloud (VPC)
    - Private & Public Subnet
    - Internet & NAT Gateway
    - ACLs and Security Groups

Frontend

- CloudFront
- Simple Storage Service (S3)
- Amplify
- Cognito
- Elastic Beanstalk

Backend

Compute

- Elastic Compute Cloud (EC2)
    - Auto Scaling Groups
- Lambda
- Lightsail

Database

- Relational Database Service (RDS)
- Aurora
- DynamoDB
- ElastiCache

Networking & Delivery

- API Gateway
- Route 53
- Elastic Load Balancing (ELB)
    - Application Load Balancing (ALB)
    - Network Load Balancing (NLB)
- Certificate Manager (ACM)

Integration

- Simple Queue Service (SQS)
- Simple Notification Service (SNS)
- EventBridge
- Step Functions

Containers

- Elastic Container Service (ECS)
- Elastic Kubernetes Service (EKS)
- App Runner

Monitoring

- CloudWatch
    - Metrics
    - Alarms
    - Log Groups

DevOps (Detailed roadmap will be covered in upcoming videos)

- Cloud Development Kit (CDK)
- CodeBuild
- CodeDeploy
- CodePipeline

Data Engineering

- Athena
- Kinesis
- Redshift
- Glue
- Lake Formation

**1. AWS Core Services:

- Amazon EC2 (Elastic Compute Cloud):
    - Learn to launch and manage virtual servers.
    - Understand different instance types, storage options, and security groups.
- Amazon S3 (Simple Storage Service):
    - Explore object storage and create S3 buckets.
    - Learn about bucket policies, versioning, and access controls.
- Amazon RDS (Relational Database Service):
    - Set up and manage relational databases.
    - Understand database engines (MySQL, PostgreSQL, etc.) and backups.
- Amazon VPC (Virtual Private Cloud):
    - Create and configure a virtual private network.
    - Understand subnets, route tables, and security groups.
- AWS IAM (Identity and Access Management):
    - Manage users, groups, and roles.
    - Implement permissions and security policies.

2. Compute Services:

- AWS Lambda:
    - Learn serverless computing with Lambda.
    - Understand triggers and event sources.
- AWS Elastic Beanstalk:
    - Deploy and manage applications without worrying about infrastructure.
    - Learn about application environments and versions.

3. Networking:

- Amazon Route 53:
    - Register domain names and manage DNS.
    - Understand routing policies and health checks.

- Amazon CloudFront:
    - Set up a content delivery network (CDN).
    - Configure caching and distribution settings.

4. Storage Services:

- Amazon EBS (Elastic Block Store):
    - Attach block storage volumes to EC2 instances.
    - Understand different volume types and snapshots.
- Amazon Glacier:
    - Archive data for long-term storage at a lower cost.
    - Implement retrieval options and lifecycle policies.

5. Database Services:

- Amazon DynamoDB:
    - Learn NoSQL database concepts.
    - Understand partition keys, indexes, and provisioned throughput.

6. Analytics and Big Data:

- Amazon Redshift:
    - Set up a data warehouse for analytics.
    - Understand nodes, clusters, and data loading.
- Amazon EMR (Elastic MapReduce):
    - Run big data frameworks like Apache Spark and Hadoop.
    - Understand clusters and processing steps.

7. Application Integration:

- Amazon SQS (Simple Queue Service):
    - Implement message queues for decoupling services.
    - Learn about message visibility and dead-letter queues.
- Amazon SNS (Simple Notification Service):
    - Set up push notifications and topic-based messaging.
    - Understand subscriptions and message filtering.
- Amazon SWF (Simple Workflow Service):
    - Coordinate distributed applications using workflows.

        - Implement activities and deciders.

8. Security, Identity, and Compliance:

- AWS WAF (Web Application Firewall):
    - Protect web applications from common web exploits.
    - Configure rules and conditions.
- AWS KMS (Key Management Service):
    - Create and manage encryption keys.
    - Implement key policies and usage permissions.

9. Monitoring and Management:

- Amazon CloudWatch:
    - Monitor resources and applications.
    - Set up alarms and dashboards.
- AWS CloudTrail:
    - Log API activity and monitor changes to resources.
    - Understand trails and logs.

10. Containers:

- Amazon ECS (Elastic Container Service):
    - Orchestrate Docker containers at scale.
    - Understand task definitions and clusters.
- Amazon EKS (Elastic Kubernetes Service):
    - Run Kubernetes on AWS.
    - Manage clusters and deploy applications.

11. Machine Learning:

- Amazon SageMaker:
    - Build, train, and deploy machine learning models.
    - Understand notebooks, training jobs, and endpoints.

12. Serverless:

- AWS Step Functions:

        - Coordinate microservices using visual workflows.
        - Implement state machines and manage execution flow.
- AWS SAM (Serverless Application Model):
    - Define serverless applications using AWS CloudFormation.
    - Understand templates and resources.

13. DevOps: (Devops Roadmap Next videos lo detail ga chepta)

- AWS CodeDeploy:
    - Automate code deployments.
    - Configure deployment groups and application revisions.
- AWS CodePipeline:
    - Create continuous integration and continuous delivery (CI/CD) pipelines.
    - Understand stages and actions.

14. Certification (Optional):(Next Videos lo Anni certifications chepta)

- AWS Certified Solutions Architect – Associate:
    - Prepare for and obtain AWS certifications to validate your skills.

NOTE - We are providing Complete real time training in AWS DevOps(Project Oriented) , Interested people can contact - 9640909558 (Whatsapp Only)

Remember to practice by working on real-world projects and explore the AWS documentation for in-depth knowledge. As AWS continually evolves, staying updated with the latest features and services is crucial.

Essentials -

- IAM -
- VPC
- EC2

Next -

- S3 - Storage

- SES - Emails
- Route 53 - DNS
- Cloud Watch -
- CloudFront

Next -

- RDS
- DynamoDB
- Elastic Cache
- ECS
- EKS

Next

- Lambda
- ECS fargate