AWS Learning Roadmap with Hands-On Practice Phase 1: AWS Basics & Foundation Concepts to Learn: - What is Cloud Computing? - What is AWS? - AWS Global Infrastructure (Regions, AZs, Edge Locations) - Free Tier Usage Hands-On: - Sign up for AWS Free Tier (https://aws.amazon.com/free) - Explore AWS Console - Set billing alerts to avoid charges (AWS Budgets) Phase 2: Core Services - Compute, Storage, Networking 1. Amazon EC2: - Launch an EC2 instance (Amazon Linux) - Connect via SSH - Install Apache/Nginx to host a basic HTML page 2. Amazon S3: - Create a bucket, upload files - Host a static website - Configure public access with bucket policies 3. IAM: - Create IAM user with specific permissions - Use IAM with AWS CLI 4. VPC: - Launch EC2 inside custom VPC

AWS Learning Roadmap with Hands-On Practice - Configure subnets, route tables, and security groups Practice Project 1: - Host a static site using S3 and Route 53 Phase 3: Database & Serverless 5. Amazon RDS: - Launch and connect to a MySQL/PostgreSQL database 6. DynamoDB: - Create table, add and query items 7. Lambda: - Write Hello World function - Trigger from API Gateway or S3 Practice Project 2: - Image Resizer: Upload to S3, trigger Lambda to resize Phase 4: Web Apps & Deployment 8. Elastic Beanstalk: - Deploy Flask or Node.js app 9. API Gateway + Lambda: - Create REST API, connect to Lambda Practice Project 3: - Build a serverless contact form API

AWS Learning Roadmap with Hands-On Practice Phase 5: Containers, DevOps & Monitoring 10. Docker on EC2: - Install Docker, run and build containers 11. ECS / Fargate: - Deploy containers without server management 12. CloudWatch & CloudTrail: - Monitor logs and user activity Practice Project 4: - Containerized app on ECS Fargate with CloudWatch Bonus Topics - AWS Lex: Create a chatbot - Step Functions: Orchestrate Lambdas - CodePipeline: Setup CI/CD - SNS/SQS: Messaging & Alerts