



Digital Lync

EDUCATION - INNOVATION - INCUBATION



AWS

www.digital-lync.com

COURSE CURRICULUM

✔ **Module 1: Getting Started**

Welcome to the AWS Course

What is a Solutions Architect

Features of the Course

AWS Organization

✔ **Module 2 : AWS Account & Physical Organization**

A Look at the AWS Account and Services Layer

A Look at the AWS Physical and Networking Layer

Essential CSA Terminology

Quiz

✔ **Module 3 : Access Management**

AWS IAM (Identity & Access Management)

AWS IAM (Essentials, Policies & Users)

AWS IAM (Groups and Roles)

AWS IAM Security Token Service (STS)

AWS IAM API Keys

Quiz

✔ **Module 4 : The AWS Console**

A look at the AWS Console

Introduction to AWS Networking

VPC Essentials

VPC Network Routing Basics

VPC Security Basics

Lab: Building a VPC from Scratch

Quiz

Server Based Compute Services

✔ **Module 5 : EC2 (Elastic Compute Cloud)**

EC2 Essentials

EC2 Purchasing Options

EC2 AMIs and Virtualization

EC2 Instance Types

Public, Private and Elastic IP Addresses

EC2 Bootstrapping, User-Data and Meta-Data

EC2 Storage Options

EC2 Security Groups

Key-Pair and Connecting to an EC2 instance

EC2 and Networking

EBS Snapshots

EC2 Placement Groups

Elastic File System (EFS)

Lab: Provisioning an EC2 Instance

Lab: EC2 Backup Solutions with AMIs and Snapshots

Lab: Accessing Instances User Data and Metadata

Quiz

✔ **Module 6 : Serverless-Based Compute Services**

Lambda Essentials

✔ **Module 7 : Introduction to Some other important Services**

Introduction to CloudWatch, CloudTrail and SNS

✔ **Module 8 : Advanced Networking**

Highly Available & Fault Tolerant VPC Networking

Auto Scaling and Elastic Load Balancing Essentials

Classic vs Application Elastic Load Balancers

Creating an Application ELB

Lab: Setting up a Classic ELB and Auto Scaling Group

Quiz

✔ **Module 9 : Advanced VPC Networking for Increased Security**

Serving Traffic to and from Private Servers

Lab: Building a More Secure Application with a -

- Bastion Host and NAT Gateway

Quiz

✔ **Module 10: Network Connectivity Troubleshooting**

EC2 Troubleshooting Scenarios

VPC Troubleshooting Scenarios

ELB Troubleshooting Scenarios

Auto Scaling Troubleshooting Scenarios

Lab: Troubleshooting Connectivity Issues Session 1

Lab: Troubleshooting Connectivity Issues Session 2

Lab: Troubleshooting Connectivity Issues Session 3

Quiz

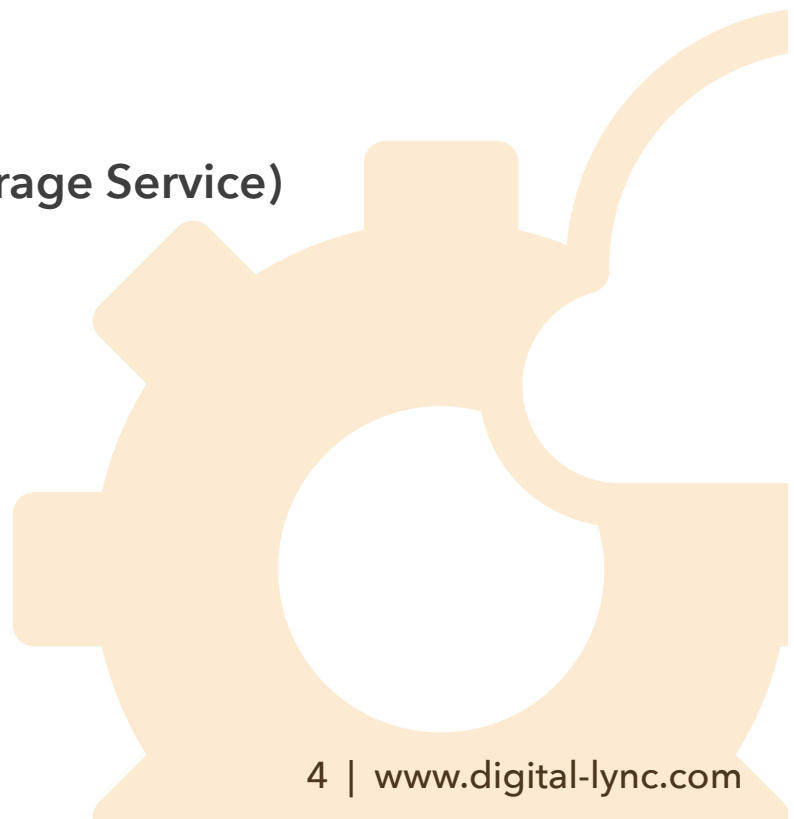
Storage Services

✔ **Module 11 : S3 (Simple Storage Service)**

S3 Essentials

S3 Permissions

S3 Storage Classes



Object Versioning

S3 Lifecycle Policies

S3 Events

Website Hosting with S3

Cross-Origin Resource Sharing (CORS)

Getting Data Into and Out of S3

Lab: Using S3 for Static Web-Hosting

Lab: Configure Backup and Archiving Solutions in S3

Quiz

The AWS CLI

✓ Module 12 : Install and Configure the AWS CLI

Hybrid Environments

✓ Module 13 : Advanced DNS, CDN, and Failover Networking

Route 53 Essentials

Route 53 DNS Failover

CloudFront Essentials

Performance Considerations with CloudFront

Lab: Configuring Route53 DNS Record Sets

Lab: Configuring a CloudFront Distribution

Quiz

✔ **Module 14 : Hybrid Environments & VPC Peering**

Virtual Private Network (VPN)

AWS Direct Connect

AWS Storage Gateway

VPC Peering

Lab: VPC Peering

Quiz

✔ **Module 15 : Database Services**

RDS (Relational Database Service)

RDS Essentials

Lab: Create and Configure an RDS DB -
- with Backup Solutions

DynamoDB Essentials

ElastiCache Essentials

Redshift Essentials

Quiz

✔ **Module 16 : Application & Messaging Services**

SNS (Simple Notification Service) Essentials

Lab: Create & Use an SNS Topic with an S3 Event

SQS (Simple Queue Service) Essentials

Using SQS to build Decoupled Application-
- Architectures

SWF (Simple Workflow Service) Essentials

API Gateway Essentials

Quiz

✔ **Module 17 : Monitoring**

CloudWatch Essentials

CloudTrail Essentials

Flow Logs

VPC Flow Logs Essentials & Creation

Quiz

✔ **Module 18 : Deployment Services**

CloudFormation Essentials

Lab: Creating an S3 Bucket with CloudFormation

Elastic Beanstalk Essentials

Lab: Deploying a Simple Web Application-
-with Elastic Beanstalk

Quiz

✓ **Module 19 : Analytics**

Kinesis Essentials

Kinesis Workflow, Producers and Consumers

Elastic MapReduce

EMR Essentials

Quiz

✓ **Module 20 : Container Services**

EC2 Container Service (ECS) Essentials

Quiz

✓ **Module 21 : Certified Solution Architect Concepts**

Implementation & Deployment

How to Design Cloud Services and Best Practices

Monitoring your AWS Environment

Architectural Trade-Off Decisions

Elasticity and Scalability

Security Architecture with AWS

Shared Security Responsibility Model and Attributes

AWS Platform Compliance and Security Services

Incorporating Common Conventional Security Products

DDoS Mitigation

Encryption Solutions

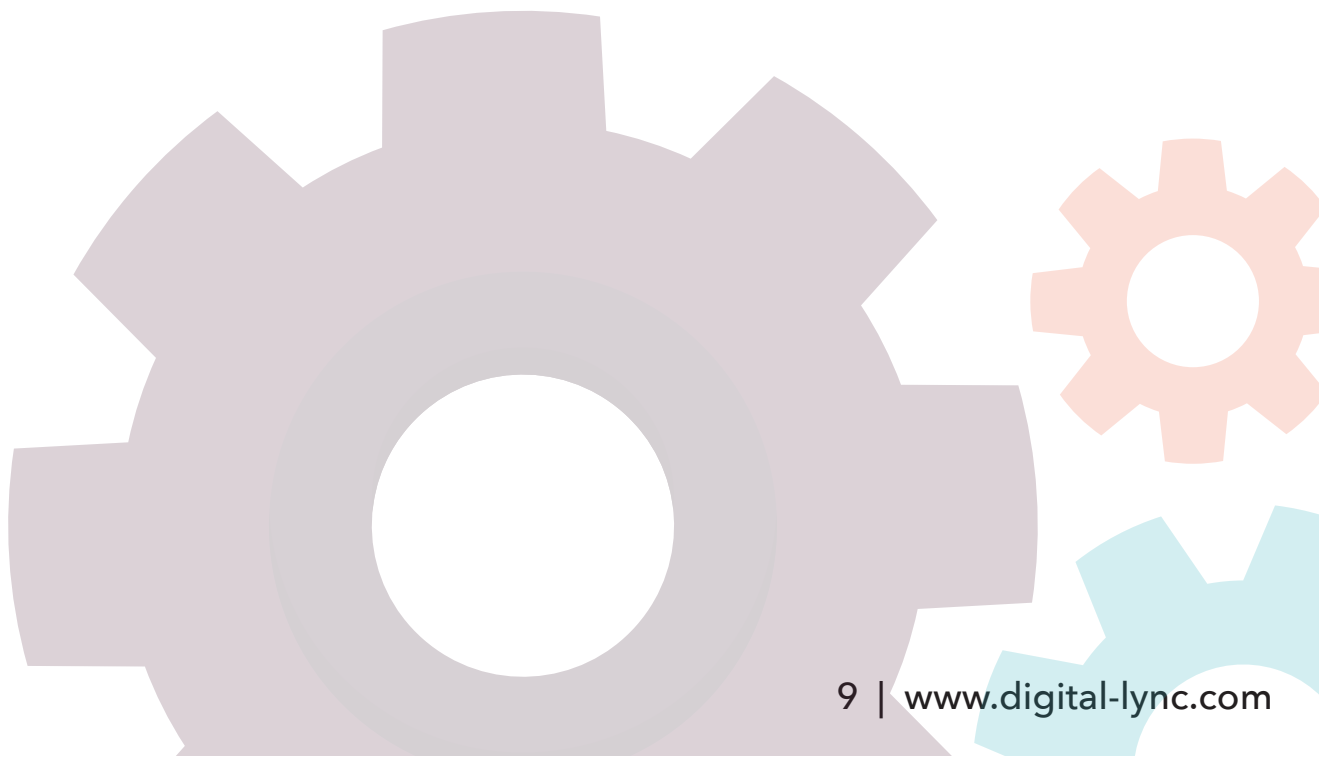
Complex Access Controls

Amazon CloudWatch for Security

CloudHSM

Disaster Recovery

Quiz: Concepts of Architecting





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