

Day - 1

- - Introduction
 - What are distributed systems?
 - Characteristics of distributed systems
 - Distributed web systems in the cloud
 - Making distributed cloud systems highly available
 - AWS service portfolio
 - Reference solution for this course
 - Reference architecture for this course
 - Goals for this course
 - Resources43s
 - Summary

- - Introduction
 - Where we are in the reference architecture
 - Types of VM storage
 - What type to use in a distributed cloud system?
 - About Amazon EBS
 - Creating and configuring EBS volumes
 - How is EBS failure handled?
 - EBS best practices
 - About Amazon S3
 - Creating and loading S3 buckets
 - DEMO: Creating and loading S3 buckets
 - How is failure handled?
 - S3 best practices
 - Summary

Day - 2

- - Introduction
 - Where we are in the reference architecture
 - The role of databases in distributed cloud systems
 - About Amazon RDS
 - Creating and accessing RDS databases
 - Using RDS with ASP.NET applications
 - DEMO: Creating an RDS database
 - DEMO: Creating an RDS Read Replica
 - DEMO: Pointing to RDS databases from ASP.NET2
 - How is Failure Handled?
 - DEMO: Testing RDS failover capabilities
 - RDS best practices
 - About Amazon DynamoDB
 - Creating and using DynamoDB databases
 - Adding a shopping cart to DynamoDB
 - Using DynamoDB as a session state provider
 - DEMO: Using DynamoDB as a session state provider
 - How is failure handled?
 - DynamoDB best practices
 - Summary

- - Introduction
 - Where we are in the reference architecture
 - The role of queues in distributed cloud systems
 - About Amazon SQS
 - Configuring SQS
 - DEMO: Configuring SQS
 - Publishing to, retrieving from a queue
 - DEMO: Publishing to, retrieving from a queue
 - How is failure handled?
 - SQS best practices
 - Summary

Day - 3

- - Introduction
 - Where we are in the reference architecture
 - The role of virtual machines in a distributed cloud system
 - About Amazon EC2
 - Deploying EC2 servers
 - DEMO: Creating the IAM role
 - DEMO: Creating the servers
 - DEMO: Connecting to servers
 - Accessing shared content
 - Deploying web applications
 - DEMO: Deploying the web application
 - DEMO: Deploying the queue application
 - Creating and using AMIs
 - DEMO: Creating and using AMIs
 - EC2 best practices
 - Using Elastic IPs
 - How is failure handled?
 - DEMO: Using Elastic IPs
 - Elastic IP best practices
 - Summary

- - Introduction
 - Where we are in the reference architecture
 - The role of load balancers in a distributed cloud system
 - About Amazon Elastic Load Balancing
 - How is failure handled?
 - Configuring ELB
 - DEMO: Configuring ELB
 - Testing ELB
 - ELB best practices
 - Summary

Day - 4

- - Introduction
 - Where we are in the reference architecture
 - The role of automated scaling in a distributed cloud system
 - About Auto Scaling
 - How is failure handled?
 - Configuring Auto Scaling
 - DEMO: Configuring Auto Scaling
 - Testing Auto Scaling
 - DEMO: Testing Auto Scaling
 - Auto Scaling Best Practices
 - Summary

- - Introduction
 - Where we are in the reference architecture
 - The role of DNS in a distributed cloud system
 - About Route
 - Using Route 53 with ELB, CloudFront, S3
 - How is failure handled?
 - Configuring Route
 - DEMO: Configuring Route 53
 - Route 53 Best Practices
 - Summary