

Developing on AWS

Resource Links

Module 1

What is Cloud Computing	https://aws.amazon.com/what-is-cloud-computing
Hybrid Deployments	https://aws.amazon.com/enterprise/hybrid/
AWS Regional Services	http://aws.amazon.com/about-aws/global-infrastructure/regional-product-services/
AWS Regions and Zones	http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html
AWS Global Infrastructure	http://aws.amazon.com/about-aws/globalinfrastructure/
AWS Global Infrastructure	https://infrastructure.aws
AWS Data Centers	https://aws.amazon.com/compliance/data-center/
AWS Regions	https://aws.amazon.com/about-aws/global-infrastructure/#reglink-pr
AWS Edge Locations – CloudFront as the CDN	https://aws.amazon.com/cloudfront/features/
Latency Checker Tool	http://www.cloudping.info/
EC2 Instance Types	http://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/instance-types.html
EC2 Instance Types	http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/instance-types.html
EC2 Instance Types	http://aws.amazon.com/ec2/instance-types/
Query API: AWS SDKs	https://aws.amazon.com/tools/#SDKs
Query API: Application Load Balancer	http://docs.aws.amazon.com/elasticloadbalancing/latest/APIReference/Welcome.html
Query API: Classic Load Balancer	http://docs.aws.amazon.com/elasticloadbalancing/2012-06-01/APIReference/Welcome.html
Elastic Load Balancer	https://aws.amazon.com/elasticloadbalancing/
EC2 Auto Scaling	https://aws.amazon.com/autoscaling/
AWS Well-Architected Framework	https://aws.amazon.com/architecture/well-architected/?wa-lens-whitepapers.sort-by=item.additionalFields.sortDate&wa-lens-whitepapers.sort-order=desc

Module 2

AWS CLI	http://aws.amazon.com/cli/
AWS Tools	https://aws.amazon.com/tools/

AWS Toolkit for Visual Code	https://aws.amazon.com/visualstudiocode/
AWS Toolkit for Visual Code	https://aws.amazon.com/about-aws/whats-new/2019/07/announcing-aws-toolkit-for-visual-studio-code/
AWS Toolkit for IntelliJ	https://aws.amazon.com/intellij/
AWS Toolkit for IntelliJ	https://aws.amazon.com/about-aws/whats-new/2019/03/the-aws-toolkit-for-intellij-is-now-generally-available/
CLI Reference	http://docs.aws.amazon.com/cli/latest/reference/
SDK Information for Python	https://boto3.readthedocs.org/en/latest/guide/quickstart.html
SDK Information for .NET	http://docs.aws.amazon.com/AWSSdkDocsNET/latest/V3/DeveloperGuide/net-dg-install-assemblies.html
SDK Information for .NET	http://docs.aws.amazon.com/AWSSdkDocsNET/latest/V3/DeveloperGuide/net-dg-start-new-project.html
SDK Information for Java	http://docs.aws.amazon.com/AWSSdkDocsJava/latest/DeveloperGuide/java-dg-install-sdk.html
SDK Information for Amplify	https://docs.amplify.aws/
SDK Information for Ruby	https://aws.amazon.com/sdk-for-ruby/
SDK Information for JavaScript in Node.js	https://aws.amazon.com/sdk-for-node-js/
SDK Information for Go	https://docs.aws.amazon.com/sdk-for-go/v1/developer-guide/welcome.html
SDK Information for JavaScript	https://docs.aws.amazon.com/AWSJavaScriptSDK/latest/
SDK Information for PHP	https://docs.aws.amazon.com/sdk-for-php/v3/developer-guide/welcome.html
SDK Information for C++	https://aws.amazon.com/sdk-for-cpp/
Boto3	http://boto3.readthedocs.org/en/latest/guide/resources.html
Boto3	http://boto3.readthedocs.org/en/latest/guide/clients.html
Region Retrieval from Metadata - Java	http://docs.aws.amazon.com/AWSSdkDocsJava/latest/DeveloperGuide/java-dg-region-selection.html
Region Retrieval from Metadata - .NET	http://docs.aws.amazon.com/AWSSdkDocsNET/latest/V3/DeveloperGuide/net-dg-config.html
Region Retrieval from Metadata – Boto3	http://boto3.readthedocs.org/en/latest/guide/quickstart.html#configuration
API Retries Configuration	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/ErrorHandling.html#APIRetries
Java Exceptions	http://docs.aws.amazon.com/AWSSdkDocsJava/latest/DeveloperGuide/java-dg-exceptions.html
Interacting with AWS X-Ray SDK	https://github.com/aws?q=xray-sdk

AWS X-Ray API Actions	https://docs.aws.amazon.com/xray/latest/api/API_Operations.html
CloudTrail Supported Services	http://docs.aws.amazon.com/awscloudtrail/latest/userguide/cloudtrail-supported-services.html
CloudTrail Events History	https://docs.aws.amazon.com/awscloudtrail/latest/userguide/view-cloudtrail-events.html
AWS Amplify	https://docs.amplify.aws/
AWS Amplify (Workshop)	https://amplify-workshop.go-aws.com/

Module 3

Services that Work with IAM	http://docs.aws.amazon.com/IAM/latest/UserGuide/reference_aws-services-that-work-with-iam.html
Allowed ARN Namespaces	http://docs.aws.amazon.com/general/latest/gr/aws-arns-and-namespaces.html
Permissions Supported by each Service	http://docs.aws.amazon.com/IAM/latest/UserGuide/Using_SpecificProducts.html
IAM Policies Evaluation Logic	http://docs.aws.amazon.com/IAM/latest/UserGuide/AccessPolicyLanguageEvaluationLogic.html
AWS Management Console	http://docs.aws.amazon.com/IAM/latest/UserGuide/console.html
IAM CLI Reference	http://docs.aws.amazon.com/cli/latest/userguide/cli-chap-welcome.html
Sign Requests with Credentials	http://docs.aws.amazon.com/general/latest/gr/signing_aws_api_requests.html
Security (Workshops)	https://awssecworkshops.com/workshops/

Module 4

EC2 Key Pairs	http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-key-pairs.html

Module 5

Amazon S3	https://aws.amazon.com/s3/
Case Study: 6 Waves Limited	https://aws.amazon.com/solutions/case-studies/6waves/

Case Study: Classle	https://aws.amazon.com/solutions/case-studies/classle/
Bucket Restrictions: Amazon S3	https://docs.aws.amazon.com/AmazonS3/latest/dev/BucketRestrictions.html
Regions for Amazon S3	http://docs.aws.amazon.com/general/latest/gr/rande.html#s3_region
Metadata and Object Key: Amazon S3	http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingMetadata.html
URLs for Objects in Amazon S3	http://docs.aws.amazon.com/AmazonS3/latest/dev/VirtualHosting.html
Amazon S3 Changes to Object Storage Class	http://docs.aws.amazon.com/AmazonS3/latest/dev/ChgStoClsOfObj.html
Amazon S3 Object Prefixes and Delimiters	http://docs.aws.amazon.com/AmazonS3/latest/dev/ListingKeysHierarchy.html
Amazon S3 Client-side Encryption	http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingClientSideEncryption.html
Amazon S3 Server-side Encryption	http://docs.aws.amazon.com/AmazonS3/latest/dev/serv-side-encryption.html
Cross-Origin Resource Sharing (CORS)	http://docs.aws.amazon.com/AmazonS3/latest/dev/cors.html http://docs.aws.amazon.com/AmazonS3/latest/dev/ManageCorsUsing.html
Troubleshooting in Amazon S3	http://docs.aws.amazon.com/AmazonS3/latest/dev/troubleshooting.html
How Amazon S3 Authorizes a Request	http://docs.aws.amazon.com/AmazonS3/latest/dev/how-s3-evaluates-access-control.html
Logging AWS SDK for Java Calls	http://docs.aws.amazon.com/AWSSdkDocsJava/latest/DeveloperGuide/java-dg-logging.html
Server Access Logging in S3	http://docs.aws.amazon.com/AmazonS3/latest/dev/ServerLogs.html
Amazon S3 Error Responses	http://docs.aws.amazon.com/AmazonS3/latest/API/ErrorResponses.html
Error Retries and Exponential Backoff	http://docs.aws.amazon.com/general/latest/gr/api-retries.html
Deprecation of Path Style URLs in S3	https://aws.amazon.com/blogs/aws/amazon-s3-path-deprecation-plan-the-rest-of-the-story/
Advantages of indexing the contents of an S3 bucket using a DynamoDB table	https://aws.amazon.com/blogs/big-data/building-and-maintaining-an-amazon-s3-metadata-index-without-servers/
New: S3 Now Delivers Strong Read-After-Write Consistency	https://aws.amazon.com/about-aws/whats-new/2020/12/amazon-s3-now-delivers-strong-read-

	after-write-consistency-automatically-for-all-applications/
New: S3 Replication Adds Support for Two-way Replication	https://aws.amazon.com/about-aws/whats-new/2020/12/amazon-s3-replication-adds-support-two-way-replication/

Module 6

SQL vs NoSQL	https://en.wikipedia.org/wiki/NoSQL
SQL vs NoSQL	https://www.mongodb.com/nosql-explained
What is NoSQL	http://www.planetcassandra.org/what-is-nosql/
ACID	https://en.wikipedia.org/wiki/ACID
DynamoDB Data Model	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.Partitions.html
Working with Tables	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/WorkingWithTables.html
Read and Write Consistency	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.ReadConsistency.html
Request Service Quota Increases	https://aws.amazon.com/support
Service Quotas	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Limits.html
DynamoDB Global Secondary Indexes	https://aws.amazon.com/about-aws/whats-new/2018/12/amazon-dynamodb-increases-the-number-of-global-secondary-indexes-and-projected-index-attributes-you-can-create-per-table/
DynamoDB Streams	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Streams.html
Higher-Level Programming Interfaces for DynamoDB	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/ORM.html
Optimistic Locking with Version Number (Java)	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/JavaVersionSupportHLAPI.html
Optimistic Locking with Version Number (.NET)	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/DynamoDBContext.VersionSupport.html
Creating a Table: DynamoDB's API	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_CreateTable.html
Creating an Item: DynamoDB's API (PutItem)	https://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_PutItem.html
Reading an Item: DynamoDB's API (GetItem)	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/WorkingWithItems.html#WorkingWithItems.ReadingData

Reading an Item: DynamoDB's API (GetItem)	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_GetItem.html
Updating an Item: DynamoDB's API (UpdateItem)	https://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_UpdateItem.html
Deleting an Item: DynamoDB's API (DeleteItem)	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_DeleteItem.html
Querying a DynamoDB Table	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Query.html
Querying a DynamoDB Table – API Reference	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_Query.html
Scanning a DynamoDB Table	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Scan.html
DynamoDB Parallel Scan	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Scan.html#Scan.ParallelScan
DynamoDB API Scan	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_Scan.html
DynamoDB Reserved Words	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/ReservedWords.html
DynamoDB Expressions	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Expressions.ExpressionAttributeNames.html
DynamoDB Conditional Writes	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Expressions.ConditionExpressions.html
DynamoDB – Limiting Amount of Data Returned	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Query.html#Query.Limit
DynamoDB – Limiting Amount of Data Returned	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Query.html#Query.Pagination
Batch Operations in DynamoDB	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/WorkingWithItems.html#WorkingWithItems.BatchOperations
Batch Operations in DynamoDB (BatchGetItem)	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_BatchGetItem.html
Batch Operations in DynamoDB (BatchWriteItem)	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_BatchWriteItem.html
DynamoDB Local Secondary Indexes	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/bp-indexes-general.html
DynamoDB Global Secondary Indexes	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/bp-indexes-general.html
Troubleshooting in DynamoDB: Error Handling	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Programming.Errors.html#APIError
Troubleshooting in DynamoDB: Error Handling	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/ErrorHandling.html

Troubleshooting in DynamoDB: Error Handling (Batch GetItem)	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_BatchGetItem.html
Troubleshooting in DynamoDB: Error Handling (Batch WriteItem)	http://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_BatchWriteItem.html
Troubleshooting in DynamoDB: Monitoring with CloudWatch	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/MonitoringDynamoDB.html
Troubleshooting in DynamoDB: Logging API Operations using CloudTrail	http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/logging-using-cloudtrail.html
CloudWatch Available Metrics for use with DynamoDB	http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/dynamo-metricscollected.html
Searching with DynamoDB and CloudSearch	http://docs.aws.amazon.com/cloudsearch/latest/developerguide/searching-dynamodb-data.html
From Zero to NoSQL Hero	https://www.youtube.com/watch?v=tDqLwzQEOMM
Video: DynamoDB Deep Dive	https://www.youtube.com/watch?v=VuKu23oZp9Q
Video: DynamoDB Streams	https://www.youtube.com/watch?v=yHSuK_k3dxU
Data Distribution and Partitions	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.Partitions.html
Working with Tables	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/WorkingWithTables.html
PartiQL	https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/ql-reference.html
DynamoDB Labs	https://amazon-dynamodb-labs.com/

Module 7

AWS Serverless	https://aws.amazon.com/serverless/
AWS Lambda Functions	https://docs.aws.amazon.com/lambda/latest/dg/invoking-lambda-function.html
How AWS Lambda Works	https://docs.aws.amazon.com/lambda/latest/dg/current-supported-versions.html
AWS Toolkit for Eclipse	http://docs.aws.amazon.com/AWSToolkitEclipse/latest/GettingStartedGuide/lambda.html
AWS Toolkit for Visual Studio	https://blogs.aws.amazon.com/net/post/Tx381XNNQALP8BA/AWS-Lambda-Support-in-Visual-Studio
AWS Toolkit for Python	https://plugins.jetbrains.com/plugin/11349-aws-toolkit
AWS Lambda push event model	http://docs.aws.amazon.com/lambda/latest/dg/API_Invoke.html
AWS Lambda pull event model	http://docs.aws.amazon.com/lambda/latest/dg/API_CreateEventSourceMapping.html

AWS Lambda direct invocation	http://docs.aws.amazon.com/lambda/latest/dg/API_Invoke.html
AWS Lambda Execution Permissions	http://docs.aws.amazon.com/lambda/latest/dg/intro-permission-model.html
Specifying Permissions in a Policy	http://docs.aws.amazon.com/AmazonS3/latest/dev/using-with-s3-actions.html
Use of Roles: Delegation and Federation	http://docs.aws.amazon.com/IAM/latest/UserGuide/roles-toplevel.html
Invocation Permissions Model - DynamoDB	http://docs.aws.amazon.com/lambda/latest/dg/intro-permission-model.html
Invocation Permissions Model - DynamoDB	http://docs.aws.amazon.com/lambda/latest/dg/API_AddPermission.html
AWS Lambda Pricing	https://aws.amazon.com/lambda/pricing/
AWS Lambda: Function Scheduling	http://docs.aws.amazon.com/lambda/latest/dg/getting-started-scheduled-events.html
AWS Lambda Versioning	http://docs.aws.amazon.com/lambda/latest/dg/versioning-intro.html
AWS Lambda Aliases	http://docs.aws.amazon.com/lambda/latest/dg/aliases-intro.html
AWS Lambda Functions – Best Practices	https://docs.aws.amazon.com/lambda/latest/dg/limits.html
Video: AWS Lambda	https://www.youtube.com/watch?v=UFj27laTWQA
Video: Lambda and the Serverless Cloud	https://www.youtube.com/watch?v=pBLdMCKsM3A
Video: Event-driven Code in the Cloud	https://www.youtube.com/watch?v=copO_JQsBs
New: Lambda Supports up to 10 GB of Memory and 6 vCPU cores	https://aws.amazon.com/about-aws/whats-new/2020/12/aws-lambda-supports-10gb-memory-6-vcpu-cores-lambda-functions/
New: Lambda changes duration billing granularity from 100ms down to 1ms	https://aws.amazon.com/about-aws/whats-new/2020/12/aws-lambda-changes-duration-billing-granularity-from-100ms-to-1ms/
New: Lambda now supports container images as a packaging format	https://aws.amazon.com/about-aws/whats-new/2020/12/aws-lambda-now-supports-container-images-as-a-packaging-format/
New: Lambda support for EFS now generally available	https://aws.amazon.com/about-aws/whats-new/2020/06/aws-lambda-support-for-amazon-elastic-file-system-now-generally-/
Lambda Execution Context	https://docs.aws.amazon.com/lambda/latest/dg/best-practices.html
Cold Starts Mitigation Strategies	https://aws.amazon.com/blogs/compute/new-for-aws-lambda-predictable-start-up-times-with-provisioned-concurrency/

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Module 8

API Gateway	https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-basic-concept.html
Video: API Gateway	https://www.youtube.com/watch?v=e9B-eIAirZ4
Video: API Gateway and Lambda Integration	https://www.youtube.com/watch?v=ZBxWZ9bgd44
AWS SAM – CloudFormation Extension	https://github.com/awslabs/serverless-application-model

Module 9

Video: SQS and SNS	https://www.youtube.com/watch?v=UesxWuZMZqI
Standard Queues	http://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/standard-queues.html
FIFO Queues	http://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/FIFO-queues.html
Queuing Chain Pattern	http://en.clouddesignpattern.org/index.php/CDP:Queuing_Chain_Pattern
Message Attributes	http://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/SQSMessageAttributes.html#SQSMessageAttributes.DataTypes
SQS Extended Client Library	https://github.com/awslabs/amazon-sqs-java-extended-client-lib
SQS API Reference	http://docs.aws.amazon.com/AWSSimpleQueueService/latest/APIReference/Welcome.html
SQS Developer's Guide	http://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/AboutVT.html
SQS Queue Operations	http://docs.aws.amazon.com/AWSSimpleQueueService/latest/APIReference/Welcome.html
SQS Dead Letter Queue	http://docs.aws.amazon.com/

	AWSSimpleQueueService/ latest/SQSDeveloperGuide/ SQSDeadLetterQueue.html
SQS Server-side Encryption	https://docs.aws.amazon.com/ AWSSimpleQueueService/ latest/SQSDeveloperGuide/sqs-server-side- encryption.html#sqs-what-permissions-for-sse
SQS Throughput – Developer’s Guide	http://docs.aws.amazon.com/ AWSSimpleQueueService/ latest/SQSDeveloperGuide/throughput.html
Sending SNS Messages to SQS Queues	http://docs.aws.amazon.com/sns/latest /dg/SendMessageToSQS.html# SendMessageToSQS.test
Raw Message Delivery	http://docs.aws.amazon.com/sns/latest/ dg/large-payload-raw-message.html
SNS Operations	http://docs.aws.amazon.com/sns/ latest/api/API_Operations.html
SNS: FAQs	https://aws.amazon.com/sns/faqs/
Amazon MQ	https://aws.amazon.com/blogs/compute/ running-activemq-in-a-hybrid-cloud- environment-with-amazon-mq/
Amazon SNS, Amazon SQS, and Amazon MQ-related API in the SDK for Java	<ul style="list-style-type: none"> • Amazon SNS client: http://docs.aws.amazon.com/ AWSJavaSDK/latest/javadoc/ com/amazonaws/ services/sns/AmazonSNSClient.html • Amazon SQS client: http://docs.aws.amazon.com/ AWSJavaSDK/latest/Javadoc /com/amazonaws/ services/sqs/AmazonSQSClient.html • Amazon MQ Interface: http://docs.aws.amazon.com/ AWSJavaSDK/latest/javadoc/ com/amazonaws/ services/mq/AmazonMQClient.html
Amazon SNS, Amazon SQS, and Amazon MQ-related API in the SDK for .NET	<ul style="list-style-type: none"> • Amazon SNS client: http://docs.aws.amazon.com/ sdkfornet/v3/apidocs/items/ SNS/TSNSClient.html • Amazon SQS client: http://docs.aws.amazon.com/ sdkfornet/v3/apidocs/items/ SQS/TSQSClient.html • Amazon MQ client: http://docs.aws.amazon.com/ sdkfornet/v3/apidocs/items/

	MQ/TMQClient.html
Amazon SNS, Amazon SQS, and Amazon MQ-related API in the SDK for Python	<ul style="list-style-type: none"> Amazon SNS client: http://boto3.readthedocs.org/en/latest/reference/services/sns.html Amazon SQS client: http://boto3.readthedocs.org/en/latest/reference/services/sqs.html Amazon MQ client: http://boto3.readthedocs.org/en/latest/reference/services/mq.html

Module 10

Video: Step Functions	https://www.youtube.com/watch?v=75MRve4nv8s
Step Functions (Workshop)	https://step-functions-workshop.go-aws.com/
Step Functions	https://docs.aws.amazon.com/step-functions/latest/dg/input-output-example.html
Amazon States Language	https://states-language.net/spec.html
Serverless (Workshop)	https://image-processing.serverlessworkshops.io/
Amazon States Language	https://docs.aws.amazon.com/step-functions/latest/dg/concepts-states.html
Amazon States Language	https://github.com/aws-labs/statelint
Use Case: Image Processing	https://github.com/aws-samples/lambda-refarch-imagerecognition
Use Case: Activity for Human Interaction	https://aws.amazon.com/blogs/compute/implementing-serverless-manual-approval-steps-in-aws-step-functions-and-amazon-api-gateway/

Module 11

AWS ElastiCache	https://aws.amazon.com/blogs/aws/amazon-elasticache-distributed-in-memory-caching/
Video: ElastiCache Deep Dive	https://www.youtube.com/watch?v=_YYBdsuUq2M
Memcached vs Redis	https://docs.aws.amazon.com/AmazonElastiCache/latest/mem-ug/SelectEngine.html
Redis	http://redis.io/
AWS ElastiCache	http://docs.aws.amazon.com/AmazonElastiCache/latest/UserGuide/Replication.Redis.Groups.html
Caching Strategies	https://docs.aws.amazon.com/AmazonElastiCache/latest/mem-ug/Strategies.html

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Module 12

Docker	https://docs.docker.com/get-started/#docker-concepts
History of Containerization	http://www.worldshipping.org/about-the-industry/history-of-containerization/the-birth-of-intermodalism
Video: ECS Deep Dive	https://www.youtube.com/watch?v=qbEPae8YNbs
Video: Docker on AWS	https://www.youtube.com/watch?v=NMhacj2n0gk
ECR for Docker	https://aws.amazon.com/blogs/compute/authenticating-amazon-ecr-repositories-for-docker-cli-with-credential-helper/
Dockerfile Best Practices	https://docs.docker.com/develop/develop-images/dockerfile_best-practices/#label
ECS (Workshop)	https://ecsworkshop.com
EKS (Workshop)	https://www.eksworkshop.com

Module 13

Security Operations on AWS	https://aws.amazon.com/training/course-descriptions/security-operations/
Sample IIS Authentication Proxy Code	http://aws.amazon.com/code/1288653099190193
Developer-Authenticated Identities	http://mobile.awsblog.com/post/Tx1YVAQ4NZKBWF5/Amazon-Cognito-Announcing-Developer-Authenticated-Identities
Developer-Authenticated Identities	https://docs.aws.amazon.com/cognito/latest/developerguide/amazon-cognito-user-pools-authentication-flow.html
Secrets Manager (Advanced Workshop)	https://secrets-manager.awssecworkshops.com/
Amazon Cognito (Workshop)	https://serverless-idm.awssecworkshops.com/

Module 14

AWS CodeStar	https://aws.amazon.com/codestar/
AWS CodePipeline	https://aws.amazon.com/codepipeline/
AWS CodeCommit	https://aws.amazon.com/codecommit/
AWS CodeBuild	https://aws.amazon.com/codebuild/
AWS CodeDeploy	https://aws.amazon.com/codedeploy/
AWS X-Ray	https://aws.amazon.com/xray/

AWS CloudWatch	https://aws.amazon.com/cloudwatch/
Auto Scaling Instance Termination	http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AutoScalingBehavior.InstanceTermination.html
Dev Cycle with AWS Elastic Beanstalk	http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/eb-cli3-install.html
Initializing Local Development Environment with AWS Elastic Beanstalk	http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/chapter-devenv.html
Customizing Default Environment for Linux Servers	http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/customize-containers-ec2.html
Customizing Default Environment for Windows Servers	http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/customize-containers-windows-ec2.html
AWS Elastic Beanstalk Namespace and Configuration Options	http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/command-options.html
AWS Elastic Beanstalk Version Options	http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/using-features.CNAMESwap.html

Other Resource Links

Brief History of AWS	https://techcrunch.com/2016/07/02/andy-jassys-brief-history-of-the-genesis-of-aws/
Video: Six Advantages of Cloud Computing	https://www.youtube.com/watch?v=yMJ75k9X5_8
Security Pillar of the Well-Architected Framework	https://d1.awsstatic.com/whitepapers/architecture/AWS-Security-Pillar.pdf
Reliability Pillar of the Well-Architected Framework	https://d1.awsstatic.com/whitepapers/architecture/AWS-Reliability-Pillar.pdf
Cost Optimization Pillar of the Well-Architected Framework	https://d1.awsstatic.com/whitepapers/architecture/AWS-Cost-Optimization-Pillar.pdf
Operational Excellence Pillar of the Well-Architected Framework	https://d1.awsstatic.com/whitepapers/architecture/AWS-Operational-Excellence-Pillar.pdf
Performance Efficiency Pillar of the Well-Architected Framework	https://d1.awsstatic.com/whitepapers/architecture/AWS-Performance-Efficiency-Pillar.pdf
Security Pillar of the Well-Architected Framework	https://d1.awsstatic.com/whitepapers/architecture/AWS-Security-Pillar.pdf
Developing Cloud Apps	http://www.opendatacenteralliance.org/docs/DevCloudCapApp.pdf

AWS Tips	https://wblinks.com/notes/aws-tips-i-wish-id-known-before-i-started/
Developing in the Cloud is Different	http://www.theserverside.com/feature/Developing-for-the-Cloud-How-Developing-in-the-Cloud-is-Different
Nine Gotcha's	http://www.infoworld.com/article/2683270/development-environments/cloud-development--9-gotchas-to-know-before-you-jump-in.html
Resource APIs for Java	http://java.awsblog.com/post/Tx1XFRAN5OWJT6J/Introducing-the-AWS-Resource-APIs-for-Java
Working with Regions	https://java.awsblog.com/post/Tx3GBOIEN1JJMQ5/Determining-an-Application-s-Current-Region
Boto3 Quickstart Guide	http://boto3.readthedocs.org/en/latest/guide/quickstart.html#configuration
Unchecked Exceptions in AWS SDK for Java	http://aws.amazon.com/articles/3604
Security Operations	https://aws.amazon.com/training/course-descriptions/security-operations/
Getting Started – AWS SDK for Java	http://docs.aws.amazon.com/AWSSdkDocsJava/latest/DeveloperGuide/getting-started-signup.html
Byte Serving	https://en.wikipedia.org/wiki/Byte_serving
Byte Serving	http://www.coneural.org/florian/papers/04_byteserving.php
S3 Gotchas with Virtual Hosts	http://shlomoswidler.com/2009/08/amazon-s3-gotcha-using-virtual-host.html