AWS Cloud Practitioner Essentials Version 3.0 By Instructor Dan Puser

Module 1: Introduction to Amazon Web Services

History of AWS https://techcrunch.com/2016/07/02/andy-jassys-brief-

history-of-the-genesis-of-aws/

Andy Jassy talking about 6 advantages of Cloud https://www.youtube.com/watch?v=yMJ75k9X5_8

Six Advantages of Cloud Computing https://docs.aws.amazon.com/whitepapers/latest/aws

-overview/six-advantages-of-cloud-computing.html

AWS & Sustainability https://aws.amazon.com/about-

aws/sustainability/?p=ngi&loc=5

Working with the AWS Management Console https://docs.aws.amazon.com/awsconsolehelpdocs/lat

est/gsg/getting-started.html

AWS Glossary https://docs.aws.amazon.com/general/latest/gr/glos-

chap.html

Whitepaper: Overview of Amazon Web Services https://do.awsstatic.com/whitepapers/aws-

overview.pdf

AWS Fundamentals Overview https://aws.amazon.com/getting-

started/fundamentals-overview/

What is cloud computing? https://aws.amazon.com/what-is-cloud-computing/
Types of cloud computing https://aws.amazon.com/types-of-cloud-computing/

Cloud computing with AWS https://aws.amazon.com/what-is-aws/

Training: Intro to AWS Management Console https://docs.aws.amazon.com/awsconsolehelpdocs/lat

est/gsg/getting-started.html

Module 2: Computer in the CLoud

Cloud computing with AWS https://aws.amazon.com/what-is-aws/

Compute on AWS

AWS Compute Blog

https://aws.amazon.com/products/compute/

AWS Computer Services https://docs.aws.amazon.com/whitepapers/latest/aws

-overview/compute-services.html

Category Deep Dive: Serverless https://aws.amazon.com/getting-started/deep-dive-

serverless/

AWS Customer Stories: Serverless https://aws.amazon.com/solutions/case-

studies/?customer-references-cards.sort-

<u>by=item.additionalFields.publishedDate&customer-references-cards.sort-order=desc&awsf.customer-references-location=*all&awsf.customer-references-</u>

<u>segment=*all&awsf.customer-references-product=product%23vpc%7Cproduct%23api-</u>

gateway%7Cproduct%23cloudfront%7Cproduct%23rou
te53%7Cproduct%23directconnect%7Cproduct%23elb

<u>&awsf.customer-references-</u> category=category%23serverless

Tagging best practices https://d1.awsstatic.com/whitepapers/aws-tagging-

best-practices.pdf

Dedicated Hosts

Compute Optimizer

https://aws.amazon.com/ec2/dedicated-hosts/
https://aws.amazon.com/compute-optimizer/

Choosing the Right EC2 Instance https://aws.amazon.com/blogs/aws/choosing-the-right-ac2

right-ec2-instance-type-for-your-application/

Tips for right-sizing https://docs.aws.amazon.com/whitepapers/latest/cost

-optimization-right-sizing/tips-for-right-sizing-your-

workloads.html

https://aws.amazon.com/getting-started/hands-Hands-On Tutorials: Compute on/?awsf.getting-startedcategory=category%23compute&awsf.getting-startedcontent-type=content-type%23hands-on Tutorial: Launch a Linux Virtual Machine with Amazon https://aws.amazon.com/getting-EC2 started/tutorials/launch-a-virtual-machine Training: Introduction to Amazon Elastic Compute https://www.aws.training/learningobject/video?id=16 Cloud (EC2) 382 https://www.aws.training/learningobject/video?id=16 Training: AWS Compute Services Overview 203 https://amazon.gwiklabs.com/focuses/33570?catalog Lab: Introduction to Amazon EC2 rank=%7B%22rank%22%3A1%2C%22num filters%22% 3A0%2C%22has search%22%3Atrue%7D&parent=catal og&search id=15988053 - \$ Module 3: Global Infrastructure and Reliability Global Infrastructure https://aws.amazon.com/about-aws/globalinfrastructure/ https://aws.amazon.com/about-aws/global-Regions and Availability Zones infrastructure/regions az https://aws.amazon.com/about-aws/global-Services available in each region infrastructure/regional-product-services/?p=ngi&loc=4 https://aws.amazon.com/blogs/networking-and-AWS Networking and Content Delivery Blog content-delivery/ Tools to Build on AWS https://aws.amazon.com/tools/ https://aws.amazon.com/solutions/case-AWS Customer Stories: Content Delivery studies/?customer-references-cards.sortby=item.additionalFields.publishedDate&customerreferences-cards.sort-order=desc&awsf.customerreferences-location=*all&awsf.customer-referencessegment=*all&awsf.customer-referencesproduct=product%23vpc%7Cproduct%23apigateway%7Cproduct%23cloudfront%7Cproduct%23rou te53%7Cproduct%23directconnect%7Cproduct%23elb &awsf.customer-referencescategory=category%23content-delivery Module 4: Networking https://aws.amazon.com/products/networking Networking and Content Delivery on AWS https://aws.amazon.com/blogs/networking-and-AWS Networking & Content Delivery Blog content-delivery/ Amazon Virtual Private Cloud https://aws.amazon.com/vpc What is Amazon VPC? https://docs.aws.amazon.com/vpc/latest/userguide/w hat-is-amazon-vpc.html How Amazon VPC works https://docs.aws.amazon.com/vpc/latest/userguide/ho

w-it-works.html

https://aws.amazon.com/about-aws/global-

infrastructure/regional-product-services/?p=ngi&loc=4

Services available in each region

VPC Quotas https://docs.aws.amazon.com/vpc/latest/userguide/a mazon-vpc-limits.html **NAT Gateways** https://docs.aws.amazon.com/vpc/latest/userguide/vp c-nat-gateway.html https://docs.aws.amazon.com/vpc/latest/userguide/V **Internet Gateways** PC Internet Gateway.html **VPN Quotas** https://docs.aws.amazon.com/vpn/latest/s2svpn/vpnlimits.html https://docs.aws.amazon.com/elasticloadbalancing/lat App ELB Quotas est/application/load-balancer-limits.html https://docs.aws.amazon.com/elasticloadbalancing/lat **Net ELB Quotas** est/network/load-balancer-limits.html https://docs.aws.amazon.com/directconnect/latest/Us **Direct Connect Quotas** erGuide/limits.html Route53 Resolver https://www.aws.training/Details/Video?id=16360 https://docs.aws.amazon.com/AWSEC2/latest/UserGui Elastic IP addresses de/elastic-ip-addresses-eip.html Tutorial: Creating VPCs with Public & Private Subnets https://docs.aws.amazon.com/batch/latest/userguide/ create-public-private-vpc.html https://docs.aws.amazon.com/autoscaling/ec2/usergui Tutorial: Set Up a Scaled and Load-Balanced Application de/as-register-lbs-with-asg.html **Tutorial: CloudWatch Tutorials** https://docs.aws.amazon.com/AmazonCloudWatch/lat est/monitoring/CloudWatch-tutorials.html Training: Introduction to Amazon Virtual Private Cloud https://www.aws.training/learningobject/video?id=15 (VPC) 884 Training: Network Ninja to Cloud Ninja https://www.aws.training/learningobject/video?id=27 497 Training: Subnets, Gateways, & Route Tabless https://www.aws.training/learningobject/video?id=16 490 Explained Training: Introduction to Amazon Elastic Load Balancer https://www.aws.training/learningobject/video?id=16 - Application 454 Training: Introduction to EC2 Auto Scaling https://www.aws.training/learningobject/video?id=16 Training: Introduction to Amazon CloudWatch https://www.aws.training/learningobject/video?id=16 390 https://amazon.gwiklabs.com/focuses/33966?catalog Lab: Introduction to Amazon Virtual Private Cloud (VPC) rank=%7B%22rank%22%3A1%2C%22num filters%22% 3A0%2C%22has search%22%3Atrue%7D&parent=catal og&search id=15988061 - \$ https://amazon.gwiklabs.com/focuses/22170?catalog Lab: Working with Elastic Load Balancing rank=%7B%22rank%22%3A2%2C%22num filters%22% 3A0%2C%22has search%22%3Atrue%7D&parent=catal og&search id=15988069 - \$\$ https://amazon.qwiklabs.com/focuses/29777?catalog Lab: Introduction to Amazon EC2 Auto Scaling rank=%7B%22rank%22%3A1%2C%22num filters%22% 3A0%2C%22has search%22%3Atrue%7D&parent=catal og&search id=15988077 - \$ Module 5: Storage and Databases

https://aws.amazon.com/products/storage

Cloud Storage on AWS

AWS Storage Blog https://aws.amazon.com/blogs/storage/ https://aws.amazon.com/getting-started/hands-Hands-On Tutorials: Storage on/?awsf.getting-startedcategory=category%23storage&awsf.getting-startedcontent-type=content-type%23hands-on **AWS Database Migration Service** https://aws.amazon.com/dms/ **Databases on AWS** https://aws.amazon.com/products/databases https://aws.amazon.com/getting-started/deep-dive-Category Deep Dive: Databases databases/ https://aws.amazon.com/blogs/database/ **AWS Database Blog RDS Quotas and Constraints** https://docs.aws.amazon.com/AmazonRDS/latest/User Guide/CHAP Limits.html **Aurora Quotas** https://docs.aws.amazon.com/AmazonRDS/latest/Aur oraUserGuide/CHAP Limits.html **DynamoDB Endpoints and Quotas** https://docs.aws.amazon.com/general/latest/gr/ddb.h tml **DynamoDB Limits** https://docs.aws.amazon.com/amazondynamodb/lates t/developerguide/Limits.html https://docs.aws.amazon.com/AmazonS3/latest/user-**Setting Bucket and Object Access Permissions** guide/set-permissions.html S3 Storage Classes https://aws.amazon.com/s3/storage-classes/ S3 Service Endpoints & Quotas https://docs.aws.amazon.com/general/latest/gr/s3.ht ml https://docs.aws.amazon.com/AmazonS3/latest/userg S3 Restrictions & Limits uide/BucketRestrictions.html **EBS Endpoints and Quotas** https://docs.aws.amazon.com/general/latest/gr/ebsservice.html **EFS Quotas & Limits** https://docs.aws.amazon.com/efs/latest/ug/limits.htm **FSx for Windows Quotas** https://docs.aws.amazon.com/fsx/latest/WindowsGuid e/limits.html Tutorial: Store and Retrieve a File with Amazon S3 https://aws.amazon.com/gettingstarted/tutorials/backup-files-to-amazon-s3 https://docs.aws.amazon.com/amazonglacier/latest/d Tutorial: Getting Started with Amazon S3 Glacier ev/amazon-glacier-getting-started.html https://aws.amazon.com/getting-Tutorial: Create a Network File system with Elastic File started/tutorials/create-network-file-system System (EFS) https://docs.aws.amazon.com/fsx/latest/WindowsGuid Tutorial: Amazon FSx Walk-throughs e/walkthroughs.html Tutorial: Create and Connect to a MySQL Database https://aws.amazon.com/gettingstarted/tutorials/create-mysql-db/ Tutorial: Getting Started with Amazon Aurora https://docs.aws.amazon.com/AmazonRDS/latest/Aur oraUserGuide/CHAP GettingStartedAurora.html Tutorial: Create and Query a NoSQL Table with Amazon https://aws.amazon.com/gettingstarted/tutorials/create-nosql-table/ DynamoDB Tutorial: Configuring a Lambda Function to Access https://docs.aws.amazon.com/lambda/latest/dg/servic es-elasticache-tutorial.html Amazon ElastiCache in an Amazon VPC Tutorial: AWS Database Migration Service Step-by-Step https://docs.aws.amazon.com/dms/latest/sbs/DMS-Walkthroughs SBS-Welcome.html

https://www.aws.training/Details/eLearning?id=54609

Training: Simple Storage Service-Basics

Training: Deep Dive into Amazon Simple Storage Service (Amazon S3)	https://www.aws.training/learningobject/curriculum?id=26930
Training: Deep Dive into Amazon Glacier	https://www.aws.training/learningobject/curriculum?i
Training: Deep Dive into Amazon Elastic Block Store (EBS)	d=19093 https://www.aws.training/learningobject/curriculum?i d=26940
Training: Deep Dive into Amazon Elastic File System (EFS)	https://www.aws.training/learningobject/curriculum?id=25384
Training: Introduction to Amazon FSx for Windows File Server	https://www.aws.training/learningobject/video?id=27
Training: Amazon RDS Service Primer	https://www.aws.training/Details/eLearning?id=36999
Training: Amazon Aurora Service Primer Training: Amazon Aurora Service Primer	https://www.aws.training/Details/eLearning?id=36849
Training: Introduction to Amazon DynamoDB	https://www.aws.training/learningobject/video?id=16
	021
Training: Amazon DynamoDB for Serverless Architectures	https://www.aws.training/learningobject/wbc?id=2719
Training: Amazon ElastiCache Service Primer	https://www.aws.training/Details/eLearning?id=36893
Training: Introduction to Database Migration	https://www.aws.training/Details/eLearning?id=43988
Lab: Introduction to Amazon Simple Storage Service	https://amazon.qwiklabs.com/focuses/33361?catalog
(S3)	rank=%7B%22rank%22%3A3%2C%22num_filters%22%
	3A0%2C%22has_search%22%3Atrue%7D&parent=catal
Laborate de la company filosofic Black (Company (EDC))	og&search_id=15987946
Lab: Introduction to Amazon Elastic Block Store (EBS)	https://amazon.qwiklabs.com/focuses/22483?catalog
	rank=%7B%22rank%22%3A3%2C%22num_filters%22%3A0%2C%22has_search%22%3Atrue%7D&parent=catal
	og&search id=15987969
Lab: Introduction to Amazon Elastic File System (EFS)	https://amazon.qwiklabs.com/focuses/32160?catalog
	rank=%7B%22rank%22%3A4%2C%22num filters%22%
	3A0%2C%22has search%22%3Atrue%7D&parent=catalog&search_id=15987995 - \$
Lab: Introduction to Amazon Relational Database	https://amazon.qwiklabs.com/focuses/27181?catalog
Service (RDS) (Linux)	rank=%7B%22rank%22%3A6%2C%22num_filters%22%
	3A0%2C%22has_search%22%3Atrue%7D&parent=catal
	og&search_id=15988003 - \$
Lab: Introduction to Amazon Relational Database Service (RDS) (Windows)	https://amazon.qwiklabs.com/focuses/32196?catalogrank=%7B%22rank%22%3A3%2C%22num filters%22%
	3A0%2C%22has search%22%3Atrue%7D&parent=catal
	og&search id=15988003 - \$
Lab: Introduction to Amazon Aurora	https://amazon.qwiklabs.com/focuses/34187?catalog
	rank=%7B%22rank%22%3A3%2C%22num_filters%22%
	3A0%2C%22has_search%22%3Atrue%7D&parent=catal
	og - \$
Lab: Introduction to Amazon DynamoDB	https://amazon.qwiklabs.com/focuses/32770?catalog
	rank=%7B%22rank%22%3A1%2C%22num_filters%22%
	3A0%2C%22has search%22%3Atrue%7D&parent=catal
Lab: Introduction to Amazon ElastiCache	og https://amazon.qwiklabs.com/focuses/14265?catalog
	rank=%7B%22rank%22%3A2%2C%22num filters%22%
	3A0%2C%22has search%22%3Atrue%7D&parent=catal
	og&search_id=15988025 - \$
Lab: Introduction to AWS Database Migration Service	https://amazon.qwiklabs.com/focuses/23666?catalog
	rank=%7B%22rank%22%3A1%2C%22num filters%22%

3A0%2C%22has_search%22%3Atrue%7D&parent=catal

og&search_id=15988043 - \$

AWS Customer Stories: Storage https://aws.amazon.com/solutions/case-

studies/?customer-references-cards.sort-

<u>by=item.additionalFields.publishedDate&customer-references-cards.sort-order=desc&awsf.customer-references-location=*all&awsf.customer-references-referenc</u>

segment=*all&awsf.customer-referencesproduct=product%23vpc%7Cproduct%23api-

gateway%7Cproduct%23cloudfront%7Cproduct%23rou te53%7Cproduct%23directconnect%7Cproduct%23elb

<u>&awsf.customer-references-</u> <u>category=category%23storage</u>

AWS Customer Stories: Databases https://aws.amazon.com/solutions/case-

studies/?customer-references-cards.sort-

<u>by=item.additionalFields.publishedDate&customer-references-cards.sort-order=desc&awsf.customer-references-location=*all&awsf.customer-references-</u>

<u>segment=*all&awsf.customer-references-product=product%23vpc%7Cproduct%23api-</u>

gateway%7Cproduct%23cloudfront%7Cproduct%23rou te53%7Cproduct%23directconnect%7Cproduct%23elb

<u>&awsf.customer-references-</u> <u>category=category%23databases</u>

Module 6: Security:

Security, Identity, and Compliance on AWS https://aws.amazon.com/products/security

Whitepaper: Introduction to AWS Security https://docs.aws.amazon.com/whitepapers/latest/intr

oduction-aws-security/welcome.html

Whitepaper: Amazon Web Services - Overview of

Security Processes

https://docs.aws.amazon.com/whitepapers/latest/aws

<u>-overview-security-processes/aws-overview-security-</u>

processes.pdf

AWS Security Blog https://aws.amazon.com/blogs/security/
AWS Compliance https://aws.amazon.com/compliance

IAM Limits https://docs.aws.amazon.com/IAM/latest/UserGuide/r

eference_iam-limits.html

Shared Responsibility Model https://aws.amazon.com/compliance/shared-

responsibility-model/

Inspector Quotas https://docs.aws.amazon.com/general/latest/gr/inspec

<u>tor.html</u>

DDoS Attack Mitigation https://d1.awsstatic.com/whitepapers/Security/DDoS

White_Paper.pdf

What is WAF, Shield and Firewall Manager https://docs.aws.amazon.com/waf/latest/developergui

de/what-is-aws-waf.html

How Shield Works https://docs.aws.amazon.com/waf/latest/developergui

de/ddos-overview.html

Tutorial: AWS IAM Tutorials https://docs.aws.amazon.com/IAM/latest/UserGuide/t

utorials.html

Training: Introduction to AWS Identity and Access https://www.aws.training/learningobject/video?id=16

Management (IAM)

Training: AWS Security Fundamentals	https://www.aws.training/learningobject/wbc?id=3425
Training: Introduction to AWS CloudTrail	9https://www.aws.training/learningobject/video?id=16453
Lab: Introduction to AWS Identity and Access Management (IAM)	https://amazon.qwiklabs.com/focuses/22172?catalog rank=%7B%22rank%22%3A2%2C%22num_filters%22% 3A0%2C%22has_search%22%3Atrue%7D&parent=catalog&search_id=15988080
AWS Customer Stories: Security, Identity, and Compliance	https://aws.amazon.com/solutions/case-studies/?customer-references-cards.sort-by=item.additionalFields.publishedDate&customer-references-cards.sort-order=desc&awsf.customer-references-location=*all&awsf.customer-references-segment=*all&awsf.customer-references-product=product%23vpc%7Cproduct%23api-gateway%7Cproduct%23cloudfront%7Cproduct%23route53%7Cproduct%23directconnect%7Cproduct%23elb&awsf.customer-references-category=category%23security-identity-compliance
Module 7: Monitoring and Analytics	
Management and Governance on AWS	https://aws.amazon.com/products/management-tools
Monitoring and Observability	https://aws.amazon.com/products/management-
Configuration, Compliance, and Auditing	tools/use-cases/monitoring-and-observability/ https://aws.amazon.com/products/management-
Configuration, Compliance, and Additing	tools/use-cases/configuration-compliance-and- auditing/
AWS Management & Governance Blog	https://aws.amazon.com/blogs/mt/
Whitepaper: AWS Governance at Scale	https://docs.aws.amazon.com/whitepapers/latest/aws
Willtepaper. AWS dovernance at Scale	-governance-at-scale/introduction.html
CloudWatch Quotas	https://docs.aws.amazon.com/AmazonCloudWatch/lat est/monitoring/cloudwatch_limits.html
CloudWatch Tutorial	https://docs.aws.amazon.com/AmazonCloudWatch/lat
	est/monitoring/CloudWatch-tutorials.html
CloudWatch Custom Metrics	https://docs.aws.amazon.com/AmazonCloudWatch/lat
	est/monitoring/publishingMetrics.html
Module 8: Pricing and Support	
AWS Pricing	https://aws.amazon.com/pricing
AWS Free Tier	https://aws.amazon.com/free
AWS Cost Management	https://aws.amazon.com/aws-cost-management/
Whitepaper: How AWS Pricing Works	https://docs.aws.amazon.com/whitepapers/latest/how
	-aws-pricing-works/welcome.html
Whitepaper: Introduction to AWS Economics	https://d1.awsstatic.com/whitepapers/introduction-to-aws-cloud-economics-final.pdf
AWS Support	https://aws.amazon.com/premiumsupport
AWS Knowledge Center	https://aws.amazon.com/premiumsupport/knowledge -center/
Compare Support Plans	https://aws.amazon.com/premiumsupport/plans/

https://aws.amazon.com/products/migration-and-Migration & Transfer on AWS <u>transf</u>er Blog: A Process for Mass Migrations to the Cloud https://aws.amazon.com/blogs/enterprisestrategy/214-2/ https://aws.amazon.com/blogs/enterprise-strategy/6-6 Strategies for Migrating Applications to the Cloud strategies-for-migrating-applications-to-the-cloud/ https://aws.amazon.com/professional-services/CAF/ **AWS Cloud Adoption Framework AWS Fundamentals: Core Concepts** https://aws.amazon.com/gettingstarted/fundamentals-core-concepts/ AWS Cloud Enterprise Strategy Blog https://aws.amazon.com/blogs/enterprise-strategy/ Modernizing with AWS Blog https://aws.amazon.com/blogs/modernizing-with-aws/ https://aws.amazon.com/architecture/well-**AWS Well-Architected** architected/ Whitepaper: AWS Well-Architected Framework https://d1.awsstatic.com/whitepapers/architecture/A WS Well-Architected Framework.pdf **AWS Architecture Center** https://aws.amazon.com/architecture https://aws.amazon.com/solutions/case-**AWS Customer Stories: Data Center Migration** studies/?customer-references-cards.sortby=item.additionalFields.publishedDate&customerreferences-cards.sort-order=desc&awsf.customerreferences-location=*all&awsf.customer-referencessegment=*all&awsf.customer-referencesproduct=product%23vpc%7Cproduct%23apigateway%7Cproduct%23cloudfront%7Cproduct%23rou te53%7Cproduct%23directconnect%7Cproduct%23elb

Self-paced labs

Module 10: AWS Certified Cloud Practitioner Basics	
AWS Certified Cloud Practitioner	https://explore.skillbuilder.aws/learn/course/external/view/elearning/134/aws-cloud-practitioner-essentials - 6 hrs.
Exam Prep: AWS Certified Cloud Practitioner Foundations (with Practice Material)	https://explore.skillbuilder.aws/learn/course/internal/ view/elearning/9456/exam-prep-aws-certified-cloud- practitioner-foundations-with-practice-material - 6 hrs.
AWS Technical Essentials	https://explore.skillbuilder.aws/learn/course/internal/view/elearning/1851/aws-technical-essentials - 4.5 hrs.
Exam Guide	https://d1.awsstatic.com/training-and- certification/docs-cloud-practitioner/AWS-Certified- Cloud-Practitioner Exam-Guide.pdf
Sample Questions	https://d1.awsstatic.com/training-and- certification/docs-cloud-practitioner/AWS-Certified- Cloud-Practitioner Sample-Questions.pdf
Exam Prep	https://aws.amazon.com/certification/certification- prep/
Official Study Guide	https://www.wiley.com/en- us/AWS+Certified+Cloud+Practitioner+Study+Guide%3 A+CLF+C01+Exam-p-9781119574408
AWS Cloud Practitioner Ramp Guide	https://d1.awsstatic.com/training-and-

&awsf.customer-references-

category=category%23datacenter-migration

certification/ramp-up guides/Ramp-Up Guide CloudPractitioner.pdf https://amazon.qwiklabs.com

Note: Some Qwiklabs labs are free, but others do have costs. You will use a student account, so there won't be any AWS charges.

Re:Invent Library/Playlists on Youtube

https://www.youtube.com/c/AWSEventsChannel/playlists?view=1

Overview of Amazon Web Services

https://d1.awsstatic.com/whitepapers/awsoverview.pdf

Compare AWS Support Plans

https://aws.amazon.com/premiumsupport/plans/
https://docs.aws.amazon.com/whitepapers/latest/how-aws-pricing-works/welcome.html

Rev. 03/29/2022