**Systems Operations on AWS**

**Resource Links**

**Module 1**

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| --- | --- |
| AWS Global Infrastructure | https://aws.amazon.com/about-aws/global-infrastructure/ |
| Service Limits | https://docs.aws.amazon.com/general/latest/gr/aws\_service\_limits.html |
| Identity and Access Management (IAM) | https://aws.amazon.com/iam/ |
| IAM Policy Evaluation Logic | https://docs.aws.amazon.com/IAM/latest/UserGuide/reference\_policies\_evaluation-logic.html |
| AWS Infrastructure | https://infrastructure.aws |
| AWS Calculator | https://calculator.aws |
| AWS Service Information | https://docs.aws.amazon.com/general/latest/gr/aws-service-information.html |

**Module 2**

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| --- | --- |
| CLI Currently Supported | https://docs.aws.amazon.com/cli/latest/reference/ |
| PowerShell | https://docs.aws.amazon.com/powershell/index.html |
| CLI User Guide | https://docs.aws.amazon.com/cli/latest/userguide/aws-cli.pdf |
| Systems Manager | https://aws.amazon.com/systems-manager/features/ |
| Systems Manager - State Manager | https://docs.aws.amazon.com/systems-manager/latest/userguide/systems-manager-state.html#systems-manager-state |
| Systems Manager - Inventory | https://docs.aws.amazon.com/systems-manager/latest/userguide/systems-manager-inventory.html |
| AWS Tools for PowerShell | https://aws.amazon.com/documentation/powershell |
| Software Development Kits | https://aws.amazon.com/getting-started/tools-sdks |

**Module 3**

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| EC2 Instance Types | https://aws.amazon.com/ec2/instance-types/ |
| AMIs | https://docs.aws.amazon.com/AWSEC2/latest/  UserGuide/AMIs.html |
| AWS Free Tier | https://aws.amazon.com/free |
| User Data | https://aws.amazon.com/premiumsupport/knowledge-center/execute-user-data-ec2 |
| Launch Templates | http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/  ec2-launch-templates.html |
| Amazon Linux AMI (original) – End of Life | https://aws.amazon.com/blogs/aws/update-on-amazon-  linux-ami-end-of-life/ |
|  | http://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/  AMIs.html#aws-windows-ami |
| Spot Instance Advisor | https://aws.amazon.com/ec2/spot/instance-advisor/?nc1=h\_ls |

**Module 4**

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| Load Balancers Comparison | https://aws.amazon.com/elasticloadbalancing/features/ |
| Auto Scaling | https://aws.amazon.com/autoscaling/ |
| How ELBs Work | https://docs.aws.amazon.com/elasticloadbalancing/latest/  userguide/how-elastic-load-balancing-works.html |
| ELB – Least Outstanding Request | https://aws.amazon.com/about-aws/whats-new/2019/11/application-load-balancer-now-supports-least-outstanding-requests-algorithm-for-load-balancing-requests/ |
| Health Checks | http://docs.aws.amazon.com\AWSEC2\latest\UserGuide\monitoring-system-instance-status-check.html |
| Instance Termination | http://docs.aws.amazon.com/autoscaling/latest/userguide/as-instance-termination.html |
| Thrashing - CoolDown | http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/Cooldown.html |
| Scaling Warmup | https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-scaling-simple-step.html#as-step-scaling-warmup |
| Scaling Lifecycle Hooks | http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AutoScalingGroupLifecycle.html |
| Load Testing – Grinder | http://grinder.sourceforge.net/ |
| Load Testing – Jmeter | https://jmeter.apache.org/ |
| Load Testing – Bees with Machine Guns | https://github.com/newsapps/beeswithmachineguns |

**Module 5**

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| Lambda Latest Limits | https://docs.aws.amazon.com/lambda/latest/dg/gettingstarted-limits.html |
| Docker Engine | https://docs.docker.com/engine/reference/run/ |
| What are Container | https://aws.amazon.com/what-are-containers |
| Workshop for ECS | https://ecsworkshop.com/ |
| Kubernetes | https://aws.amazon.com/kubernetes/ |
| Workshop for EKS | https://eksworkshop.com/ |
| Starting and Stopping Instances via Lambda | https://aws.amazon.com/premiumsupport/knowledge-center/start-stop-lambda-cloudwatch/ |
| Lambda Limits | https://docs.aws.amazon.com/lambda/latest/dg/limits.html |
| API Gateway | https://docs.aws.amazon.com/apigateway/latest/  developerguide/welcome.html |
| AWS Batch – Explained in <5minutes | https://www.youtube.com/watch?v=T4aAWrGHmxQ |
| AWS Batch User Guide | https://docs.aws.amazon.com/batch/latest/userguide/  Batch\_GetStarted.html |
| AWS Batch Working with Amazon Rekognition | https://aws.amazon.com/blogs/machine-learning/classify-a-large-number-of-images-with-amazon-rekognition-and-aws-batch |

**Module 6**

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| Amazon RDS Backup | https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/  CHAP\_CommonTasks.BackupRestore.html |
| Amazon Redshift | https://aws.amazon.com/redshift/features |
| Amazon Neptune | https://aws.amazon.com/neptune/features |
| Amazon Elasticache | https://aws.amazon.com/elasticache/details |
| Database Migration Service | https://aws.amazon.com/dms |
| Schema Conversion Tool | https://aws.amazon.com/dms/schema-conversion-tool/ |

**Module 7**

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| VPC Peering | https://aws.amazon.com/about-aws/whats-new/2017/11/announcing-support-for-inter-region-vpc-peering/ |
| VPD Endpoints | https://docs.aws.amazon.com/vpc/latest/userguide/vpc-endpoints.html |
| Elastic Network Interfaces (ENI) | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.html |
| Using the ENI | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.html#AvailableIpPerENI |
| Networking Workshop | https://networking.aworkshop.io/ |
| Source Repo for Networking Workshop | https://github.com/geseib/awsnetworkshop |
| AWS Direct Connect (DX) Partners | https://aws.amazon.com/directconnect/partners/ |
| CIDR addressing | https://cidr.xyz |
| VPC IP Addressing | https://docs.aws.amazon.com/vpc/latest/userguide/vpc-ip-addressing.html |
| VPC Quotas | https://docs.aws.amazon.com/AmazonVPC/latest/  UserGuide/amazon-vpc-limits.html#vpc-limits-vpcs-subnets |
| Inter-Region VPC Peering | https://aws.amazon.com/about-aws/whats-new/2017/11/announcing-support-for-inter-region-vpc-peering/ |
| VPC Peering Security Groups | https://docs.aws.amazon.com/vpc/latest/peering/vpc-peering-security-groups.html |
| VPC Peering Configurations | http://docs.aws.amazon.com/AmazonVPC/latest/  PeeringGuide/invalid-peering-configurations.html |
| Transit Gateway | https://aws.amazon.com/transit-gateway[/](https://aws.amazon.com/transit-gateway/) |
| VPC Network Administrator Guide | http://docs.aws.amazon.com/AmazonVPC/latest/  NetworkAdminGuide/Welcome.html |
| VPN CloudHub | https://docs.aws.amazon.com/vpn/latest/  s2svpn/VPN\_CloudHub.html |
| NAT Instance versus NAT Gateway | https://docs.aws.amazon.com/vpc/latest/userguide/  vpc-nat-comparison.html |
| PrivateLink | https://docs.aws.amazon.com/AmazonVPC/latest/  UserGuide/VPC\_Introduction.html#what-is-privatelink |
| DNS in the VPC | http://docs.aws.amazon.com/AmazonVPC/latest/  UserGuide/vpc-dns.html |
| Route 53 Hosted Zones | http://docs.aws.amazon.com/Route53/latest/  DeveloperGuide/hosted-zones-private.html |
| VPC Security Groups - Quotas | https://docs.aws.amazon.com/vpc/latest/userguide/amazon-vpc-limits.html#vpc-limits-security-groups |
| NACLs | http://docs.aws.amazon.com/AmazonVPC/latest/  UserGuide/VPC\_Appendix\_NACLs.html |
| Linux Bastion Host | https://aws.amazon.com/quickstart/architecture/linux-bastion/ |

**Module 8**

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| Lifecycle Management for Snapshots | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/snapshot-lifecycle.html |
| Instance Store | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html |
| S3 API Commands | https://docs.aws.amazon.com/cli/latest/userguide/cli-services-s3-apicommands.html |
| S3 Storage Classes | https://aws.amazon.com/s3/storage-classes/ |
| **create-volume** CLI | https://docs.aws.amazon.com/cli/latest/reference/ec2/create-volume.html |
| **attach-volume** CLI | https://docs.aws.amazon.com/cli/latest/reference/ec2/attach-volume.html |
| EBS-optimized Volumes | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-optimized.html |
| EBS Incremental Snapshots | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html |
| **create-snapshot** CLI | https://docs.aws.amazon.com/cli/latest/reference/ec2/create-snapshot.html |
| **copy-snapshot** CLI | https://docs.aws.amazon.com/cli/latest/reference/ec2/copy-snapshot.html |
| Snapshots Lifecycle | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/snapshot-lifecycle.html |
| Instance Store | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html |
| Adding Instance Store Volumes | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/add-instance-store-volumes.html |
| EFS – Elastic File System | https://docs.aws.amazon.com/efs/latest/ug/whatisefs.html |
| Event Notifications in S3 | https://docs.aws.amazon.com/AmazonS3/latest/dev/NotificationHowTo.html |
| S3 **make bucket** CLI | https://docs.aws.amazon.com/cli/latest/reference/s3/mb.html |
| S3 list (**ls**) CLI | https://docs.aws.amazon.com/cli/latest/reference/s3/ls.html |
| S3 copy CLI | https://docs.aws.amazon.com/cli/latest/reference/s3/cp.html |
| S3 sync CLI | https://docs.aws.amazon.com/cli/latest/reference/s3/sync.html |
| S3 rm CLI | https://docs.aws.amazon.com/cli/latest/reference/s3/rm.html |
| S3 CLI References | https://docs.aws.amazon.com/cli/latest/userguide/cli-services-s3.html  http://docs.aws.amazon.com/cli/latest/userguide/using-s3-commands.html |
| S3 Storage Classes and Performance | https://aws.amazon.com/s3/storage-classes[/](https://aws.amazon.com/s3/storage-classes/)  https://aws.amazon.com/s3/storage-classes/#Performance\_across\_the\_S3\_Storage\_Classes |
| Amazon Glacier | https://aws.amazon.com/glacier[/](https://aws.amazon.com/glacier/)  http://docs.aws.amazon.com/amazonglacier/latest/dev/introduction.html  https://docs.aws.amazon.com/amazonglacier/latest/dev/downloading-an-archive-two-steps.html |
| DataSync | https://aws.amazon.com/datasync/ |
| The “Snow” Family | https://aws.amazon.com/snowball  https://aws.amazon.com/snowcone  https://aws.amazon.com/snowmobile |

**Module 9**

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| CloudWatch Concepts | https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/cloudwatch\_concepts.html |
| CloudWatch Alarms | https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/AlarmThatSendsEmail.html |
| CloudWatch Agent Reference | https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/AgentReference.html |
| Monitoring with CloudWatch | http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-cloudwatch-new.html |
| CloudWatch Pricing | http://aws.amazon.com/cloudwatch/pricing/ |
| CloudWatch Event Types | https://docs.aws.amazon.com/AmazonCloudWatch/latest/events/EventTypes.html |
| CloudWatch Scheduled Events | https://docs.aws.amazon.com/AmazonCloudWatch/latest/events/ScheduledEvents.html |
| CloudWatch Features | https://aws.amazon.com/cloudwatch/features |
| Apache Log Formatting | https://httpd.apache.org/docs/2.4/logs.html |
| CloudWatch Logs Reference | https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/AgentReference.html |
| CloudTrail Configuration | https://docs.aws.amazon.com/awscloudtrail/latest/userguide/cloudtrail-user-guide.html |
| AWS Security | https://aws.amazon.com/security/ |
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**Module 10**

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| Required Tags | https://docs.aws.amazon.com/config/latest/  developerguide/required-tags.html |
| Stopinator Complete Example | https://aws.amazon.com/premiumsupport/knowledge-center/start-stop-lambda-cloudwatch/ |
| AWS Trusted Advisor | https://aws.amazon.com/premiumsupport/technology/trusted-advisor/ |
| Consolidated Billing | http://docs.aws.amazon.com/awsaccountbilling/latest/  aboutv2/consolidated-billing.html |
| CloudWatch Billing Alarms | https://docs.aws.amazon.com/AmazonCloudWatch/latest/  monitoring/monitor\_estimated\_charges\_with\_cloudwatch.html |
| AWS Trusted Advisor Best Practices | https://aws.amazon.com/premiumsupport/technology/trusted-advisor/best-practices/ |
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**Module 11**

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| Stacks | https://docs.aws.amazon.com/cli/latest/reference/cloudformation/create-stack.html |
| AWS CloudFormation Best Practices | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/best-practices.html |
| Troubleshooting | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/troubleshooting.html |
| Configuration Management – AMI Design | https://aws.amazon.com/answers/configuration-management/aws-ami-design |
| Creating an EBS-backed Linux AMI | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/creating-an-ami-ebs.html |
| Configuring a Windows instance with EC2Launch | https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/ec2launch.html |
| Copying AMIs | https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/CopyingAMIs.html  https://docs.aws.amazon.com/cli/latest/reference/ec2/copy-image.html |
| AWS Resources and Property Types Reference | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-template-resource-type-ref.html |
| CloudFormation Intrinsic Functions | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference.html |
| Pseudo Parameters | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/pseudo-parameter-reference.html |
| **Mapping** | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/mappings-section-structure.html |
| CloudFormation **Resources** | http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/resources-section-structure.html |
| CloudFormation **Init** | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-resource-init.html |
| CloudFormation Errors and Troubleshooting | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/troubleshooting.html |
| Launching a Stack | https://docs.aws.amazon.com/cli/latest/reference/cloudformation/create-stack.html |
| Override | http://docs.aws.amazon.com/cli/latest/reference/cloudformation/continue-update-rollback.html  http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/using-cfn-updating-stacks-continueupdaterollback.html |
| CloudFormation Best Practices | http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/best-practices.html  https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/using-cfn-stack-exports.html  https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/what-is-cfnstacksets.html |
| CloudFormation **WaitCondition** | https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-properties-waitcondition.html |

**Additional Resources, Tools, and Links**

* [Compute Abstractions on AWS: A Visual Story](https://aws.amazon.com/blogs/architecture/compute-abstractions-on-aws-a-visual-story/)
* [AWS Well-Architected - Learn, measure, and build using architectural best practices](https://aws.amazon.com/architecture/well-architected/)
* [AWS Well-Architected Framework](https://wa.aws.amazon.com/index.html)
* [Updates to the Well-Architected Framework (July 2020)](https://aws.amazon.com/blogs/security/updates-to-security-pillar-aws-well-architected-framework/)
* [AWS Well-Architected Tool – Review Workloads Against Best Practices](https://aws.amazon.com/blogs/aws/new-aws-well-architected-tool-review-workloads-against-best-practices/)
* [AWS Well-Architected Tool – DEMO](https://d3nn3d4w2aqyem.cloudfront.net/mp4/Getting_started_video.mp4)
* [Amazon EC2 Instance Types](https://aws.amazon.com/ec2/instance-types/)
* [Spot Instance Advisor](https://aws.amazon.com/ec2/spot/instance-advisor/)
* [Amazon EC2 Auto Scaling Lifecycle Hooks](https://docs.aws.amazon.com/autoscaling/ec2/userguide/lifecycle-hooks.html)
* [Running high-scale web applications on Amazon EC2 Spot Instances](https://aws.amazon.com/blogs/compute/running-high-scale-web-on-spot-instances/)
* [Amazon EBS Volume Types](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumeTypes.html)
* [Recovering files from an Amazon EBS volume backup](https://aws.amazon.com/blogs/compute/recovering-files-from-an-amazon-ebs-volume-backup/)
* [Amazon Aurora Backtrack – Turn Back Time](https://aws.amazon.com/blogs/aws/amazon-aurora-backtrack-turn-back-time/)
* [Best Practices for DynamoDB](https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/best-practices.html)
* [Best Practices for Designing and Using Partition Keys Effectively](https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/bp-partition-key-design.html)
* [Building resiliency at scale at Tinder with Amazon ElastiCache](https://aws.amazon.com/blogs/database/building-resiliency-at-scale-at-tinder-with-amazon-elasticache/)
* [Introducing Amazon Elasticsearch Service as a target in AWS Database Migration Service](https://aws.amazon.com/blogs/database/introducing-amazon-elasticsearch-service-as-a-target-in-aws-database-migration-service/)
* [Migration Complete – Amazon’s Consumer Business Just Turned off its Final Oracle Database](https://aws.amazon.com/blogs/aws/migration-complete-amazons-consumer-business-just-turned-off-its-final-oracle-database/)
* [Scaling Your Amazon RDS Instance Vertically and Horizontally](https://aws.amazon.com/blogs/database/scaling-your-amazon-rds-instance-vertically-and-horizontally/)
* [Right-size Amazon RDS instances at scale based on Oracle performance metrics](https://aws.amazon.com/blogs/database/right-sizing-amazon-rds-instances-at-scale-based-on-oracle-performance-metrics/)
* [Amazon S3 + Amazon CloudFront: A Match Made in the Cloud](https://aws.amazon.com/blogs/networking-and-content-delivery/amazon-s3-amazon-cloudfront-a-match-made-in-the-cloud/)
* [How to set up a CloudFront distribution for Amazon S3](https://aws.amazon.com/cloudfront/getting-started/S3/)
* [Overview of Managing Access on S3](https://docs.aws.amazon.com/AmazonS3/latest/dev/access-control-overview.html#so-which-one-should-i-use)
* [New – AWS Storage Gateway Hardware Appliance](https://aws.amazon.com/blogs/aws/new-aws-storage-gateway-hardware-appliance/)
* [Using static IP addresses for Application Load Balancers](https://aws.amazon.com/blogs/networking-and-content-delivery/using-static-ip-addresses-for-application-load-balancers/)
* [New – Application Load Balancer Simplifies Deployment with Weighted Target Groups](https://aws.amazon.com/blogs/aws/new-application-load-balancer-simplifies-deployment-with-weighted-target-groups/)
* [How to securely publish Internet applications at scale using Application Load Balancer and AWS PrivateLink](https://aws.amazon.com/blogs/networking-and-content-delivery/how-to-securely-publish-internet-applications-at-scale-using-application-load-balancer-and-aws-privatelink/)
* [Debugging tool for network connectivity from Amazon VPC](https://aws.amazon.com/blogs/networking-and-content-delivery/debugging-tool-for-network-connectivity-from-amazon-vpc/)
* [VPC sharing: A new approach to multiple accounts and VPC management](https://aws.amazon.com/blogs/networking-and-content-delivery/vpc-sharing-a-new-approach-to-multiple-accounts-and-vpc-management/)
* [Multiple Region Multi-VPC Connectivity](https://aws.amazon.com/answers/networking/aws-multiple-region-multi-vpc-connectivity/)
* [Working with Direct Connect Gateways](https://docs.aws.amazon.com/directconnect/latest/UserGuide/direct-connect-gateways.html)
* [AWS Direct Connect Partners](https://aws.amazon.com/directconnect/partners/)
* [How do I provision an AWS Direct Connect connection?](https://aws.amazon.com/premiumsupport/knowledge-center/provision-direct-connection/)
* [Building a Serverless Dynamic DNS System with AWS](https://aws.amazon.com/blogs/startups/building-a-serverless-dynamic-dns-system-with-aws/)
* [How do I create an IAM policy to control access to Amazon EC2 resources using tags?](https://aws.amazon.com/premiumsupport/knowledge-center/iam-ec2-resource-tags/)
* [Simplify granting access to your AWS resources by using tags on AWS IAM users and roles](https://aws.amazon.com/blogs/security/simplify-granting-access-to-your-aws-resources-by-using-tags-on-aws-iam-users-and-roles/)
* [Writing IAM Policies: Grant Access to User-Specific Folders in an Amazon S3 Bucket](https://aws.amazon.com/blogs/security/writing-iam-policies-grant-access-to-user-specific-folders-in-an-amazon-s3-bucket/)
* [Now Create and Manage AWS IAM Roles More Easily with the Updated IAM Console](https://aws.amazon.com/blogs/security/now-create-and-manage-aws-iam-roles-more-easily-with-the-updated-iam-console/)
* [Guidelines for protecting your AWS account while using programmatic access](https://aws.amazon.com/blogs/security/guidelines-for-protecting-your-aws-account-while-using-programmatic-access/)
* [Creating a Billing Alarm to Monitor Your Estimated AWS Charges](https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html)
* [How to better monitor your custom application metrics using Amazon CloudWatch Agent](https://aws.amazon.com/blogs/devops/new-how-to-better-monitor-your-custom-application-metrics-using-amazon-cloudwatch-agent/)
* [CloudWatch Search Expression Examples](https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/search-expression-examples.html)
* [CloudWatch Logs Subscription Consumer + Elasticsearch + Kibana Dashboards](https://aws.amazon.com/blogs/aws/cloudwatch-logs-subscription-consumer-elasticsearch-kibana-dashboards/)
* [Running Scripts from GitHub and Amazon S3](https://docs.aws.amazon.com/systems-manager/latest/userguide/integration-remote-scripts.html)
* [Validating AWS CloudFormation Templates](https://aws.amazon.com/blogs/devops/validating-aws-cloudformation-templates/)
* [Amazon CloudFront Dynamic Content Delivery](https://aws.amazon.com/cloudfront/dynamic-content/)
* [Implementation Considerations - Learn Caching Design Patterns](https://aws.amazon.com/caching/implementation-considerations/)
* [Caching Content Based on Query String Parameters](https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/QueryStringParameters.html)
* [AWS Serverless Application Model](https://aws.amazon.com/serverless/sam/)
* [Firecracker – Lightweight Virtualization for Serverless Computing](https://aws.amazon.com/blogs/aws/firecracker-lightweight-virtualization-for-serverless-computing/)
* [Chaos Monkey](https://netflix.github.io/chaosmonkey/)
* [Netflix’s Simian Army](https://medium.com/netflix-techblog/the-netflix-simian-army-16e57fbab116)
* [Netflix’s Conformity Monkey (now OSS) for Watching Configurations](https://medium.com/netflix-techblog/conformity-monkey-keeping-your-cloud-instances-following-best-practices-2aaff3479adc)

**Architecture Reference & Tools**

* [AWS Quick Starts](https://aws.amazon.com/quickstart/)
* [AWS Solutions](https://aws.amazon.com/solutions/)
* [AWS Simple Monthly Calculator](https://calculator.s3.amazonaws.com/index.html)
* [AWS Pricing Calculator](https://calculator.aws/#/)
* [The Amazon Builders' Library](https://aws.amazon.com/builders-library/)
* [AWS Samples](https://github.com/aws-samples)
* [AWS CloudFormation Sample Templates](https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/cfn-sample-templates.html)
* [AWS SAM - Serverless Application Repository](https://serverlessrepo.aws.amazon.com/applications)
* [AWS Geek Cloud Diagrams & Notes](https://www.awsgeek.com/)
* [TOOLS] [CloudPing](https://www.cloudping.info/)
* [TOOLS] [AWS Policy Generator](https://awspolicygen.s3.amazonaws.com/policygen.html)
* [TOOLS] [S3 Transfer Acceleration Speed Comparison Tool](http://s3-accelerate-speedtest.s3-accelerate.amazonaws.com/en/accelerate-speed-comparsion.html)
* [TOOLS] [AWS Global Accelerator - Speed Comparison](https://speedtest.globalaccelerator.aws/#/)
* [TOOLS] [Amazon WorkSpaces - Connection Health Check](https://clients.amazonworkspaces.com/Health.html)
* [TOOLS] [Web Identity Federation Playground](https://web-identity-federation-playground.s3.amazonaws.com/index.html)
* [TOOLS] [AWS Elastic Load Balancer Demos](https://exampleloadbalancer.com/)
* [TOOLS] [Amazon S3 Find and Forget](https://github.com/awslabs/amazon-s3-find-and-forget)
* [TOOLS unofficial] [JMESPath](https://jmespath.org/)
* [TOOLS unofficial] [AWS IP Ranges](http://52.24.200.194/)
* [TOOLS unofficial] [Cloudcraft - Create smart AWS diagrams](https://cloudcraft.co/)
* [TOOLS unofficial] [Bees with Machine Guns!](https://github.com/newsapps/beeswithmachineguns)
* [TOOLS unofficial] [The Grinder](http://grinder.sourceforge.net/)
* [TOOLS unofficial] [Apache JMeter](https://jmeter.apache.org/)
* [TOOLS unofficial] [CloudFormation Lint: CFN Nag](https://github.com/stelligent/cfn_nag)
* [TOOLS unofficial] [CloudFormation Lint: CFripper](https://github.com/Skyscanner/cfripper/)
* [TOOLS unofficial] [Awesome Honeypots](https://github.com/paralax/awesome-honeypots)
* [TOOLS unofficial] [Modern Honey Network](https://github.com/threatstream/mhn)
* [TOOLS unofficial] [Rhino Security Labs - Pacu](https://github.com/RhinoSecurityLabs/pacu)
* [TOOLS unofficial] [Rhino Security Labs - CloudGoat](https://github.com/RhinoSecurityLabs/cloudgoat)
* [TOOLS unofficial] [Rhino Security Labs - Cloud Container Attack](https://github.com/RhinoSecurityLabs/ccat)
* [TOOLS unofficial] [Console Recorder for AWS](https://github.com/iann0036/AWSConsoleRecorder)
* [TOOLS unofficial] [AWS CloudFront CDN Edge Locations](https://www.feitsui.com/en/blog/page/3)
* [TOOLS unofficial] [Lambda Load Testing](https://github.com/krapes/lambdaLoadTesting)
* [TOOLS unofficial] [MySQL Samples](https://dev.mysql.com/doc/index-other.html)
* [TOOLS unofficial] [Third-Party Tool to Create Visualizations of Security Groups](https://github.com/anaynayak/aws-security-viz)

**Workshops & Labs**

* [LABS] [AWS Qwiklabs](https://amazon.qwiklabs.com)
* [LABS] [AWS Well-Architected Labs](https://wellarchitectedlabs.com)
* [LABS] [VMware Cloud on AWS](https://www.vmware.com/try-vmware/vmc-aws-hol-labs.html)
* [LABS] [Self-paced Labs](https://aws.amazon.com/training/self-paced-labs/)
* [Workshop] [AWS Cloud Champion](https://aws.amazon.com/blogs/publicsector/announcing-aws-cloud-champion-gamified-tutorial-working-teaching-engaging-remotely/)
* [Workshop] [AWSome AWS Workshops](https://awesome-aws-workshops.com/)
* [Workshop] [Networking Workshop - Transit Gateway and Traffic Mirroring](https://www.networking-workshop.com/#/)
* [Workshop] [Amazon EC2 Spot Instances Workshop](https://ec2spotworkshops.com/)
* [Workshop] [Amazon CloudWatch](https://ako.aws-management.tools/tko372759/en/cw.html)
* [Workshop] [SSM & Config](https://ako.aws-management.tools/tko372759/en/ssm.html)
* [Workshop] [Amazon FSx Workshop](https://github.com/aws-samples/amazon-fsx-workshop)
* [Workshop] [Amazon ECS Workshop for AWS Fargate](https://ecsworkshop.com/)
* [Workshop] [Amazon EKS Workshop](https://eksworkshop.com/)
* [Workshop] [Amazon Lightsail Workshop](https://lightsailworkshop.com/)
* [Workshop] [Amazon DynamoDB Labs](https://amazon-dynamodb-labs.com/index.html)
* [Workshop] [Amazon Aurora Labs for MySQL](https://awsauroralabsmy.com/prereqs/environment/)
* [Workshop] [CloudEndure Deep Dive - Workshop](http://02h.s3-website.eu-central-1.amazonaws.com/)
* [Workshop] [Migration and Modernization Workshop Guide](https://application-migration-with-aws.workshop.aws/)
* [Workshop] [Kinesis Streaming Analytics Workshop](https://streaming-analytics.labgui.de/)
* [Workshop] [Workshop: Choose Your Own SAML Adventure](http://federationworkshopreinvent2016.s3-website-us-east-1.amazonaws.com/)
* [Workshop] [Landing Zone Workshop](https://lz-workshop.com/)
* [Workshop] [Security Workshops - Permission Boundaries: How to Truly Delegate Permissions on AWS](https://awssecworkshops.com/builder-sessions/permission-boundary/build/)
* [Workshop] [Security Workshops - Data Protection, Detection, Identity, Threat Detection](https://awssecworkshops.com/workshops/)
* [Workshop] [AWS Protecting Workloads Workshops](http://protecting-workloads.awssecworkshops.com/)
* [Workshop] [Getting Hands on with Amazon GuardDuty](https://hands-on-guardduty.awssecworkshops.com/)
* [Workshop] [Integrating security into your container pipeline](https://container-devsecops.awssecworkshops.com/)
* [Workshop] [DevSecOps with Snyk](https://snyk.modernize.awsworkshop.io/)
* [Workshop] [Microsoft Workloads Immersion Day](http://msft-on-aws.corp.amazon.com/)
* [Workshop] [Learn Python On AWS Workshop](https://learn-to-code.workshop.aws/)
* [Workshop unofficial] [Welcome to the flAWS challenge](http://flaws.cloud/)
* [Workshop unofficial] [Welcome to the flAWS 2 challenge](http://flaws2.cloud/)
* [Workshop unofficial] [Play with Docker](https://labs.play-with-docker.com/)
* [Workshop unofficial] [Hello Kubernetes w/ Minikube](https://kubernetes.io/docs/tutorials/hello-minikube/)
* [SLIDES] [Technical Essentials on AWS](https://www.slideshare.net/AmazonWebServices/technical-essentials-training-aws-innovate-ottawa)
* [EBOOK] [Hands-On AWS Penetration Testing with Kali Linux](https://github.com/PacktPublishing/Hands-On-AWS-Penetration-Testing-with-Kali-Linux)
* [FILES] [Security Engineering on AWS - script lab 2](https://danidoo.github.io/lab2.html)
* [FILES] [Developing on AWS - Additional Resources](https://hackmd.io/@MwIcLI3tRLiY6ECW-aHV_A/Syn63uSsm)
* [FILES] [Developing on AWS - Solutions for Labs](https://aws-tc-largeobjects.s3.amazonaws.com/AWS-100-DEV/v3.0/fullCodeForAllLabs.html)
* [FILES] [AWSome Days - Additional Resources](http://bit.ly/AWSomeResources)
* [VIDEO-LABS] [How to use QwikLabs](http://bit.ly/labintro)
* [VIDEO-LABS] [AWS Technical Essentials](http://bit.ly/tesslabs)
* [VIDEO-LABS] [AWS Cloud Practitioner Essentials](http://bit.ly/cpelabs)
* [VIDEO-LABS] [Architecting on AWS](http://bit.ly/arclabs)
* [VIDEO-LABS] [Systems Operations on AWS](http://bit.ly/opslabs)
* [VIDEO-LABS] [Developing on AWS](http://bit.ly/Devlabs)
* [VIDEO-LABS] [Security Engineering on AWS](http://bit.ly/seceng-labs)
* [VIDEO-LABS] [Planning and Designing Database on AWS](http://bit.ly/PD_DBLAB)
* [VIDEO-LABS] [Deep Learning on AWS](http://bit.ly/deeplabs)
* [VIDEO-LABS] [Moving to AWS Serverless](http://bit.ly/TC-MTAS)
* [VIDEO-LABS] [Advanced Architecting on AWS](http://bit.ly/aarclabs)
* [VIDEO-LABS] [IoT in Scale: IoT Solution using AWS Services](http://bit.ly/iotscale)

**GENERAL LINKS**

* [AWS News Blog](https://aws.amazon.com/blogs/aws/)
* [AWS YouTube channel](https://www.youtube.com/user/AmazonWebServices/)
* [Reinvent Videos](https://reinventvideos.com/)
* [AWS Service Health Dashboard](https://status.aws.amazon.com/)
* [A digital tour of an AWS data center](https://aws.amazon.com/compliance/data-center/)
* [AWS re:Invent 2016 | Amazon Global Network Overview with James Hamilton](https://www.youtube.com/watch?v=uj7Ting6Ckk)
* [Service Availability by Region](https://aws.amazon.com/about-aws/global-infrastructure/regional-product-services/)
* [Completing the Netflix Cloud Migration (Feb 2016)](https://media.netflix.com/en/company-blog/completing-the-netflix-cloud-migration)
* [Diagramming and Budgeting tool that is still early in development but shows great promise](https://cloudcraft.co)