AWS Certified SA (Associate Level) – Prep Tips

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Solutions Architect

AWS Certification

Solutions Architect

AWS Certified Solutions Architect – Associate

AWS Certified Solutions Architect – Professional

Developer

AWS Certified Developer – Associate

SysOps Administrator

AWS Certified SysOps Administrator – Associate

AWS Certified DevOps Engineer—Professional (Beta)

Learn more at aws.amazon.com/certification

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1. AWS Exam Certification Site

http://aws.amazon.com/certification/certification-levels/certified-solutions-architect-associate/
http://aws.amazon.com/certification/faqs/

- ~ 750 Kryterion centers globally
- No pre-req's (Architecting with AWS training recommended though)
- AWS Business Professional and AWS Tech Professional (nice to have them cleared as well)
  (APN Portal Self register - https://www.apn-portal.com/selfregisterpartner)

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2. AWS Exam Certification Guide

http://awstrainingandcertification.s3.amazonaws.com/production/AWS_certified_solutions_architect_associate_blueprint.pdf

- Multiple choice and multiple answers
- 80 minutes
- ~ 55 questions
- 65% passing

Examination Blueprint (remember the topics & weightage)…

- Designing HA, Cost Efficient, Fault Tolerant and scalable systems – 60%
- Implementation and Deployment – 10%
- Data Security – 20%
- Troubleshooting – 10%

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3. AWS Sample Questions

- Few Sample questions at - http://aws.amazon.com/certification/certified-solutions-architect-associate/
- Practice Exam also available for $20
- Read the Getting Started with AWS Self-Study Technical Training Guide For APN SI Partners
- No Dumps available!

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4. Whitepaper Review

http://aws.amazon.com/whitepapers/

a. Overview of Amazon Web Services
b. Overview of Security Processes
c. AWS Risk & Compliance Whitepaper
d. Storage Options in the Cloud
e. Architecting for the AWS Cloud: Best Practices

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5. Architecture Center

http://www.aws.amazon.com/architecture

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6. Labs

https://run.qwiklab.com/

http://aws.amazon.com/free/

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7. AWS Services Documentation & FAQs

- http://aws.amazon.com/ec2/faqs/
- http://aws.amazon.com/vpc/faqs/
- http://aws.amazon.com/iam/faqs/
- http://aws.amazon.com/sqs/faqs/
- http://aws.amazon.com/sns/faqs/,
- http://aws.amazon.com/rds/faqs/
- http://aws.amazon.com/dynamodb/faqs/
- http://aws.amazon.com/s3/faqs/
- http://aws.amazon.com/swf/faqs/
- http://aws.amazon.com/route53/faqs/
- http://aws.amazon.com/elasticmapreduce/faqs/
- http://aws.amazon.com/cloudfront/faqs/
- http://aws.amazon.com/glacier/faqs/
- http://aws.amazon.com/storagegateway/faqs/
- http://aws.amazon.com/elasticache/faqs/

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8.

Other useful resources

- AWS Blog - http://aws.amazon.com/blogs/aws/
- AWS on Slideshare - http://slideshare.net/AmazonWebServices/
- AWS on YouTube - https://www.youtube.com/user/AmazonWebServices

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9. Third party content

http://www.linuxacademy.com

https://cloudacademy.com/

http://blog.cloudthat.in/sample-questions-for-amazon-web-services-certified-solution-architect-certification-aws-architect-certification-part-ii/

http://www.pluralsight.com/

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10. Read this Getting Started with AWS Self-Study Technical Training Guide For APN SI Partners

https://portal2010.amazon.com/sites/ESA2010/Decks/Shared%20Documents/Certification/Building%20Blocks%20for%20Developing%20Essential%20AWS%20Technical%20Skills-%20A%20Self-Study%20Guide.pdf

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11.

Take the Free Sample on the AWS web site

- http://awstrainingandcertification.s3.amazonaws.com/production/AWS_certified_solutions_architect_associate_examsample.pdf
- http://blog.cloudthat.in/sample-questions-for-amazon-web-services-certified-solution-architect-certification-aws-architect-certification-part-i/
- http://blog.cloudthat.in/sample-questions-for-amazon-web-services-certified-solution-architect-certification-aws-architect-certification-part-ii/

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12.

(Optional) Take the paid exams

AWS
- Associate practice exams cost $20. Register
  here: https://www.webassessor.com/wa.do?page=publicHome&branding=AMAZON

Third Party
- https://www.udemy.com/aws-certified-solutions-architect-associate-level-2014/
- https://cloudacademy.com/
- http://www.linuxacademy.com/

Before signing up for any class, take a look for a coupon code around the web – easy to get one for 50% off or so.

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13. TIPS: Security

- IAM, Roles, Authorization and Authentication, Policies, MFA, CIDR, DDOS mitigation, App vs. OS vs. Infrastructure, Security Groups.
- How to secure API calls. Data encryption at rest and in transit.
- S3 Security! Role – user can assume the role of another user in different application can assume a role to access other services via api calls;
- Policies – know how to construct (elements) and differences between IAM and service specific policies like S3 bucket.
- Read and re-read Security Whitepapers!
- **Top 10 AWS Identity and Access Management (IAM) Best Practices:** https://www.youtube.com/watch?v=4AZX8COgnmU
- **Security Best Practices on AWS**: https://www.youtube.com/watch?v=q79kFxwUEqM

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14. TIPS: Networking

- Know VPC very well (Subnets, IGW, NAT, Route Table, ENI, VGW, CIDR notations, SG, EIP),
- Regional vs. AZ constructs
- **Selecting the Best VPC Network Architecture**: https://www.youtube.com/watch?v=m6Q5dWjFdiU
- **From One to Many - Evolving VPC Design**: https://www.youtube.com/watch?v=GKSsJJqzyyI

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15. TIPS: Scalability

- Whitepapers!
- Know how to architect a self-healing scalable applications on AWS (Autoscaling constructs like lunch config\ASG\Conditions\Policies, Bootstrapping, CloudFormation, EC2 Metadata, CloudWatch Metrics and monitoring)
- **AWS re: Invent STG 303: Building Scalable Applications on Amazon S3**: https://www.youtube.com/watch?v=YYnVRYbUR6A
- **Building Scalable Windows and .NET Apps on AWS**: https://www.youtube.com/watch?v=SIs2ektEXq4
- **Massive Message Processing with Amazon SQS and Amazon DynamoDB**: https://www.youtube.com/watch?v=n9pMxdUbBGs
- **Scale Your Application while Improving Performance and Lowering Costs**: https://www.youtube.com/watch?v=6EKKKtdoRcA
- **AWS re: Invent ARC 205: Building Web-Scale Applications With AWS**: https://www.youtube.com/watch?v=2wZAN2_W6Ns

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16. TIPS: Content Delivery

- Route53 (Latency based vs. Round Robin vs. Weighted, CNAME vs. Alias vs. A vs. AAA entries, Zone Apex);
- ELB (Public vs. Private VPC set up) – good for Web and App tiers but not suitable for DB – regional service – can set up Sticky Sessions if necessary but its anti-pattern;
- CloudFront – global service with POPs edge locations – latency based routing and caching – origin could be S3 or any other web server – use cases static web sites\images\videos\live streaming;
- S3 is HTTP\HTTPs object oriented storage system with GET\PUT REST capabilities – content can be served directly with right permission within a region.
- **Introduction to Amazon CloudFront**: https://www.youtube.com/watch?v=k-nCMrmxmgs
- **Using Amazon CloudFront to Protect Your Content Delivery:** https://www.youtube.com/watch?v=tpdlVrliMf0

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17.
TIPS: EC2 Sizing and Families

- There may be questions about Families (optimized for Memory vs. Network vs. Storage vs. GPU)
- **Instance Types:** http://aws.amazon.com/ec2/instance-types/
- **Purchasing Options**: http://aws.amazon.com/ec2/purchasing-options/
- **Improving Availability & Lowering Costs with Auto Scaling & Amazon EC2**:
  https://www.youtube.com/watch?v=_fbkAq4mUW0

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18. TIPS: Pricing

- How to architect for cost – On-demand vs. RI vs. Spot, Free Tier for a year, Managed services more cost effective than customer managed on EC2. Turn off what you don't use.
- Billing alerts and monitoring with consolidated billing across accounts, utilizing tagging. Scale In after scaling out.
- Downsize instances proactively when demand is low.
- **Estimating the cost of running a 3-Tier Web Hosting Application**: https://www.youtube.com/watch?v=PsEX3W6lHN4
- **Reducing Cost & Maximizing Efficiency**: Tightening the Belt on AWS: https://www.youtube.com/watch?v=lm-MSlc3m-k

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19. TIPS: Storage

- Ephemeral (direct attached) vs. Block Storage (EBS) vs. OO (S3) vs. RDS vs. NoSQL (DynamoDB)
- **Introduction to Amazon Elastic Block Store**: https://www.youtube.com/watch?v=DKftR47Ljvw
- **Instance Store**: http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html
- **Introduction to Amazon Simple Storage Service (S3)**: https://www.youtube.com/watch?v=gRLs5t-iS_Y
- **Maximizing Amazon S3 Performance**: https://www.youtube.com/watch?v=uXHw0Xae2ww
- **Introduction to Amazon Relational Database Service**: https://www.youtube.com/watch?v=Kz1zmyHw9G0
- **AWS Storage and Database Architecture Best Practices**: https://www.youtube.com/watch?v=j6cxi1YoXRk

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20.

TIPS: HA, Backup and DR

- Whitepaper!
- EBS Snapshots, AMI, restore from snapshot to new EBS and mount to EC2;
- Push snapshots to S3 bucket to Glacier (VTL);
- S3, AMI, Glacier are Regional services but EC2 and EBS are AZ dependent! RDS snapshots and data replication across regions.
- **Patterns for High Availability**: http://en.clouddesignpattern.org/index.php/Main_Page#Patterns_for_High_Availability
- **Architecting for High Availability & Multi-Availability Zones on AWS**: https://www.youtube.com/watch?v=6uE2XULbT3o
- **Backup and Archiving in the AWS Cloud**: https://www.youtube.com/watch?v=mgxZZpoufTI
- **Backup and Recovery**: http://aws.amazon.com/backup-recovery/
- **AWS Storage and Database Architecture Best Practices**: https://www.youtube.com/watch?v=j6cxi1YoXRk
- **Archiving Amazon S3 Data to Amazon Glacier**: https://www.youtube.com/watch?v=_cwpengIjkw&spfreload=1
- **Disaster Recovery Site on AWS - Minimal Cost Maximum Efficiency**: https://www.youtube.com/watch?v=01hSWAOJGLY

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21. TIPS: Application Services

- Know SQS, SNS, SWF, CloudWatch really well!
- **Getting Started with Amazon SQS**: https://www.youtube.com/watch?v=-XGm2VyNV4E
- **AWS re: Invent SVC 105: AWS Messaging**: https://www.youtube.com/watch?v=zwLC5xmCZUs
- **Massive Message Processing with Amazon SQS and Amazon DynamoDB**:
  https://www.youtube.com/watch?v=n9pMxdUbBGs
- **Getting Started with Amazon SNS**: https://www.youtube.com/watch?v=u5j1U3qFXDY
- **Cloud Infrastructure and Application Monitoring with Amazon CloudWatch**:
  https://www.youtube.com/watch?v=4ExkEX3ftFs

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21. TIPS: General Recommendation

- Read up on placement groups and know how to use them!
- ARN – know how to construct for different services like EC2, S3, ELB, EIP, VPC, EBS. Study S3 documentation and know: buckets, keys, objects, declaring object and bucket privileges\policies.
- Remember everything that is doable via AWS Management Console we can accomplish via API calls either through CLI or SDK programmatically.

Schedule Your Exam

- Go To: https://webassessor.com/aws/
- Exams and practice exams are delivered through our testing partner Kryterion
- Under "Getting Started" section click "Create an account"
- Log in and select an Exam
- Select a Training Center near you and schedule your time
- APN Partners: To receive credit on your APN Partner Scorecard, Create an APN Portal Account and register for an exam with your unique firm's domain.

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All the Best!