

AWS Certified Solutions Architect Professional SAP-C01 2021

About Course

Sunshine Learning & Technologies, AWS Solutions Architect Professional Course has been moduled to enhance your technical knowledge and practical skills to gain deeper understanding of AWS. It is one of the most highly sought-after certifications in the IT industry. AWS Solutions Architect Professional certification is not at all easy but will stand you apart from the crowd when looking for your dream AWS cloud role.

In order to be successful, you'll need a high level of proficiency across a large number of AWS services. You'll need in-depth knowledge of how to design multi-account and multi-region architectures, implement HA and fault tolerance, and plan and execute migrations to the AWS Cloud. You have everything you need to fully prepare at your fingertips. We teach you through a unique combination of video lectures, guided hands-on exercises, practice questions and cheat sheets.

We recommend that you first complete your associate-level AWS certifications as those will set you up with a strong base of knowledge to build upon. This is the best online course for the AWS Solution Architect Professional available today and is completely up to date with the latest concepts featuring on the exam.

AWS Certified Solutions Architect Professional SAP-C01 2021 Training Curriculum:

AWS Accounts & Organizations :-

Topics:

- ☒ Introduction
- ☒ Hands-On Practice: Free Tier vs Sandbox
- ☒ [HOL] Create Management AWS Account
- ☒ [HOL] Configure Account and Setup Billing Alarms
- ☒ [HOL] Install Tools (AWS CLI and VS Code)
- ☒ [HOL] Create User, Group, and Configure CLI
- ☒ Overview of AWS Organizations
- ☒ Overview of AWS Account Setup
- ☒ [HOL] Create AWS Organization and Add Account
- ☒ Service Control Policies (SCPs)
- ☒ SCP Strategies and Inheritance.
- ☒ [HOL] Create Development Account
- ☒ [HOL] Test SCP Inheritance

Identity Management and Permissions :-

Topics:

- ∄ Introduction
- ∄ How IAM Works
- ∄ Overview of Users, Groups, Roles & Policies
- ∄ IAM Authentication Methods
- ∄ AWS Security Token Service (STS)
- ∄ Multi-Factor Authentication (MFA)
- ∄ [HOL] Secure the AWS Account (MFA, Access Keys, Password Policy)
- ∄ Identity-Based Policies and Resource-Based Policies
- ∄ Access Control Methods - RBAC & ABAC
- ∄ Permissions Boundaries
- ∄ IAM Policy Evaluation Logic
- ∄ IAM Policy Structure
- ∄ [HOL] Using Role-Based Access Control (RBAC)
- ∄ [HOL] Using Attribute-Based Access Control (ABAC)
- ∄ [HOL] Apply Permissions Boundary
- ∄ Use Cases for IAM Roles
- ∄ [HOL] Cross-Account Access to S3
- ∄ [HOL] Amazon EC2 Instance Profile
- ∄ AWS IAM Best Practices

AWS Directory Services & Federation :-

Topics:

- ∄ Introduction
- ∄ AWS Directory Services
- ∄ [HOL] AWS Managed Microsoft AD - Part 1
- ∄ [HOL] AWS Managed Microsoft AD - Part 2
- ∄ Identity Federation
- ∄ IAM Identity Federation
- ∄ AWS Single Sign-on (SSO)
- ∄ [HOL] Configure AWS SSO with AWS Managed AD
- ∄ [HOL] Cleanup the Hands-On Lab
- ∄ Amazon Cognito

Advanced Amazon VPC :-

Topics:

- ∄ Introduction
- ∄ Defining VPC CIDR Blocks
- ∄ [HOL] Create a Custom VPC with Subnets
- ∄ VPC Routing Deep Dive
- ∄ [HOL] Configure Routing
- ∄ Security Groups and Network ACLs
- ∄ [HOL] Setup Security Groups and NACLs
- ∄ NAT Gateways and NAT Instances
- ∄ [HOL] Create NAT Gateway
- ∄ Using IPv6 in a VPC
- ∄ [HOL] Configure IPv6
- ∄ [HOL] Additional Settings
- ∄ VPC Peering
- ∄ [HOL] Setup VPC in Second Account
- ∄ [HOL] Create VPC Peering Connection
- ∄ VPC Endpoints
- ∄ [HOL] Create VPC Endpoint

Hybrid Connectivity :-

Topics:

- ∄ Introduction
- ∄ AWS Client VPN
- ∄ [HOL] Deploy AWS Client VPN
- ∄ AWS Site-to-Site VPN
- ∄ [HOL] Deploy AWS Site-to-Site VPN
- ∄ AWS VPN CloudHub
- ∄ AWS Direct Connect (DX)
- ∄ [HOL] Create Direct Connect Connection
- ∄ AWS Direct Connect Gateway
- ∄ AWS Transit Gateway

Compute Auto Scaling, and Load Balancing :-

Topics:

- ∄ Introduction
- ∄ Amazon EC2 Pricing Options
- ∄ Amazon EC2 Pricing Use Cases
- ∄ Bootstrapping AMIs
- ∄ EC2 Placement Group Use Cases
- ∄ Network Interfaces (ENI, ENA, EFA)
- ∄ [HOL] Working with ENIs
- ∄ Public, Private and Elastic IP Addresses
- ∄ NAT for Public Addresses
- ∄ [HOL] Working with EC2 IP addresses
- ∄ Advanced Auto Scaling
- ∄ [HOL] Advanced Auto Scaling
- ∄ Types of Elastic Load Balancer (ELB)
- ∄ Routing with ALB and NLB
- ∄ ALB and NLB Access Control and SSL/TLS
- ∄ [HOL] Register Domain with Route 53
- ∄ [HOL] Request Routing with ALB
- ∄ [HOL] NLB Static IPs and Whitelisting
- ∄ Session State and Session Stickiness
- ∄ AWS Batch
- ∄ Architecture Patterns – Compute

AWS Storage Services :-

Topics:

- ∄ Introduction
- ∄ Amazon EBS Deployment and Volume Types
- ∄ Amazon EBS Copying, Sharing and Encryption
- ∄ EBS vs instance store
- ∄ Amazon EFS Refresher
- ∄ [HOL] Create and Mount EFS File System
- ∄ Amazon S3 Refresher
- ∄ Amazon S3 Storage Classes
- ∄ Amazon S3 Lifecycle Policies
- ∄ [HOL] Create Lifecycle Policies
- ∄ S3 Versioning and Replication
- ∄ S3 Encryption
- ∄ [HOL] Test S3 Encryption
- ∄ S3 Presigned URLs
- ∄ Server Access Logging
- ∄ [HOL] S3 Event Notifications
- ∄ AWS Storage Gateway

DNS, Caching, and Performance Optimization :-

Topics:

- ∄ Introduction
- ∄ Amazon Route 53 Hosted Zones
- ∄ Route 53 Routing Policies
- ∄ [HOL] Test Route 53 Routing Policies
- ∄ Route 53 Resolver
- ∄ Amazon CloudFront Origins and Distributions
- ∄ Amazon CloudFront Caching and Behaviors
- ∄ CloudFront Signed URLs and OAI
- ∄ [HOL] Cache and Behavior Settings
- ∄ CloudFront SSL/TLS and SNI
- ∄ Lambda@Edge
- ∄ AWS Global Accelerator
- ∄ [HOL] Create a Global Accelerator

AWS Database Services :-

Topics:

- ∄ Introduction
- ∄ Amazon RDS Scaling and Deployment
- ∄ Amazon RDS Backup and Recovery
- ∄ Amazon RDS Security
- ∄ Amazon Aurora Core Knowledge
- ∄ Amazon Aurora Deployment Options
- ∄ Amazon RDS Anti-Patterns and Alternatives
- ∄ Amazon ElastiCache Core Knowledge
- ∄ Scaling ElastiCache
- ∄ Amazon DynamoDB Core Knowledge
- ∄ DynamoDB Capacity Modes and RCUs/WCUs
- ∄ [HOL] Create DynamoDB Table
- ∄ DynamoDB Streams
- ∄ DynamoDB Accelerator (DAX)
- ∄ DynamoDB Global Tables
- ∄ [HOL] Create Global Table
- ∄ Architecture Patterns - AWS Databases

Serverless Applications :-

Topics:

- ∄ Introduction
- ∄ Event-Driven Architectures
- ∄ AWS Lambda Invocations and Concurrency
- ∄ Lambda Versions and Aliases
- ∄ Advanced Amazon SQS
- ∄ Serverless App Architecture for HOL
- ∄ [HOL] Build a Serverless App - Part 1
- ∄ [HOL] Build a Serverless App - Part 2
- ∄ Application Integration Services Comparison
- ∄ Amazon EventBridge
- ∄ Amazon API Gateway Core Knowledge
- ∄ [HOL] Build a Serverless App - Part 3
- ∄ [HOL] Build a Serverless App - Part 4
- ∄ Architecture Patterns – Serverless

Docker Containers and PaaS :-

Topics:

- ∄ Introduction
- ∄ Docker and Microservices Architectures
- ∄ Amazon ECS Core Knowledge
- ∄ Scaling Amazon ECS
- ∄ Amazon ECS with ALB
- ∄ [HOL] Create and Scale ECS Tasks
- ∄ Amazon Elastic Kubernetes Service (EKS)
- ∄ AWS Elastic Beanstalk Core Knowledge
- ∄ Updating Elastic Beanstalk Applications
- ∄ [HOL] Deploy Elastic Beanstalk Apps
- ∄ Architecture Patterns - Containers and PaaS

Deployment and Management :-

Topics:

- ∄ Introduction
- ∄ CI/CD Overview
- ∄ AWS CodeCommit and CodePipeline
- ∄ AWS CloudFormation Core Knowledge
- ∄ [HOL] Deploy Stack and Change Set
- ∄ AWS Service Catalog
- ∄ [HOL] Deploy Product using Service Catalog
- ∄ AWS Cloud Development Kit
- ∄ AWS Serverless Application Model (SAM)
- ∄ AWS Systems Manager
- ∄ [HOL] Launch EC2 Managed Instances
- ∄ [HOL] Systems Manager Automation
- ∄ [HOL] Systems Manager Run Command and Patch Manager
- ∄ [HOL] Systems Manager Configuration Compliance
- ∄ AWS OpsWorks
- ∄ AWS Resources Access Manager (RAM)
- ∄ [HOL] Share a Subnet Across Accounts
- ∄ Architecture Patterns - Deployment and Management

Migration and Transfer Services :-

Topics:

- ∄ Introduction
- ∄ AWS Migration Tools Overview
- ∄ AWS Application Discovery Service
- ∄ AWS Database Migration Service (DMS)
- ∄ AWS Server Migration Service (SMS)+
- ∄ AWS DataSync
- ∄ AWS Snow Family
- ∄ Architecture Patterns - Migration and Transfer

Analytics Services :-

Topics:

- ∄ Introduction
- ∄ Amazon Athena and AWS Glue
- ∄ [HOL] Build a Serverless App - Part 5
- ∄ Redshift and OLAP Use Cases
- ∄ Amazon EMR Use Cases
- ∄ Amazon Kinesis Core Knowledge
- ∄ Architecture Patterns – Analytics

Monitoring, Logging & Auditing :-

Topics:

- ∄ Introduction
- ∄ Amazon CloudWatch Features and Use Cases
- ∄ [HOL] Export CloudWatch Logs to S3
- ∄ [HOL] Trigger SSM on Instance Launch
- ∄ AWS CloudTrail Use Cases
- ∄ [HOL] Enable CloudTrail Log File Validation
- ∄ AWS X-Ray
- ∄ Architecture Patterns - Monitoring, Logging and Auditing

Security: Defense in Depth :-

Topics:

- ∄ Introduction
- ∄ Secure Multi-Tier Architecture for HOL
- ∄ AWS Certificate Manager (ACM)
- ∄ AWS Certificate Manager (ACM)
- ∄ AWS CloudHSM
- ∄ [HOL] Build a Secure Multi-Tier Architecture - Part 1
- ∄ [HOL] Build a Secure Multi-Tier Architecture - Part 2
- ∄ [HOL] Build a Secure Multi-Tier Architecture - Part 3
- ∄ Amazon Macie
- ∄ AWS Config
- ∄ Amazon Inspector
- ∄ [HOL] Build a Secure Multi-Tier Architecture - Part 4
- ∄ AWS Web Application Firewall (WAF)
- ∄ AWS Shield
- ∄ [HOL] Build a Secure Multi-Tier Architecture - Part 5
- ∄ AWS GuardDuty
- ∄ Architecture Patterns – Security

Cost Management :-

Topics:

- € Introduction
- € Pricing for AWS Services
- € Consolidated Billing
- € AWS Budgets
- € Cost Allocation Tags

Sample Practice Test :-

Sample Practice Test 1

Additional Training Resources :-

Bonus Lesson

Hands On:-

There will be separate Hands-On on separate topics.