

## Architecting on AWS

CONNECTION TECHNOLOGY 裝備未來  
**FUTURE SKILLS**

Course Fee: HK\$12,600 (May apply up to HK\$8,400 subsidy)

\*Maximum saving, with the final grant subjects to approval.



This course is designed to teach you how to:

- Make architectural decisions based on the AWS-recommended architectural principles and best practices.
- Leverage AWS services to make your infrastructure scalable, reliable, and highly available.
- Leverage AWS managed services to enable greater flexibility and resiliency in an infrastructure.
- Make an AWS-based infrastructure more efficient in order to increase performance and reduce costs.
- Use the Well-Architected Framework to improve architectures with AWS solutions.

Programme code	10012208
Duration and time	3 days 9:30-17:00
Venue	TBC
Medium	Cantonese, supplemented with English terminology
Course fee	HK\$12,600 (May apply up to HK\$8,400* subsidy)
Pre-requisite	AWS Technical Essentials
Bring Your Own Device (BYOD):	Windows 7/10 / Mac OS 10.x or above with minimum 2 GB RAM and 20 GB hard disk

## Course Description

Architecting on AWS covers the fundamentals of building IT infrastructure on AWS. The course is designed to teach solutions architects how to optimize the use of the AWS Cloud by understanding AWS services and how these services fit into cloud-based solutions. Because architectural solutions may differ depending on industry, type of applications, and size of business, this course emphasizes AWS Cloud best practices and recommended design patterns to help students think through the process of architecting optimal IT solutions on AWS. It also presents case studies throughout the course that showcase how some AWS customers have designed their infrastructures and the strategies and services they implemented. Opportunities to build a variety of infrastructures via a guided, hands-on approach are also provided.

### RTTP Training Grant Application

Companies should submit their RTTP training grant application for their employee(s) via <https://rttp.vtc.edu.hk/rttp/login> at least two weeks before course commencement. Alternatively, [application form](#) could be submitted by email to [rttp@vtc.edu.hk](mailto:rttp@vtc.edu.hk) along with supporting documents.

This course is subject to approval under the Reindustrialisation and Technology Training Programme (RTTP) with up to 2/3 course fee reimbursement upon successful applications. For details: <https://rttp.vtc.edu.hk>.

## Course Outline

### Module 1: Introduction

- The Well-Architected Framework
- AWS Global Infrastructure

### Module 2: The simplest architectures

- Amazon Simple Storage Service (Amazon S3)
- Amazon S3 Glacier
- Choosing AWS Regions for your architectures
- Hands-on lab: Hosting a Static Website

### Module 3: Adding a compute layer

- Amazon Elastic Compute Cloud (Amazon EC2)
- Amazon Machine Images (AMIs)
- Amazon Elastic Block Storage (Amazon EBS)
- Amazon Elastic File System (Amazon EFS)
- Amazon FSx

### Module 4: Adding a database layer

- Database layer considerations
- Amazon Relational Database Service (Amazon RDS)
- Amazon DynamoDB
- AWS Database Migration Service (AWS DMS)
- Hands-on lab: Deploying a Web Application on AWS

### Module 5: Networking in AWS – Part 1

- Amazon Virtual Private Cloud (Amazon VPC)
- Network security in the cloud
- Hands-on lab: Creating a VPC

### Module 6: Networking in AWS – Part 2

- AWS VPN connections
- AWS Direct Connect (DX)
- VPC peering
- AWS Transit Gateway
- Load balancing on AWS
- Amazon Route 53

### Module 7: AWS Identity and Access Management (IAM)

- Account users and AWS IAM
- Federating users
- Amazon Cognito
- AWS Organizations

### Module 8: Elasticity, high availability, and monitoring

- Amazon CloudWatch
- AWS CloudTrail
- Amazon EC2 Auto Scaling
- Scaling your databases
- Hands-on lab: Creating a highly available environment

## Course Outline

### Module 9: Automation

- AWS CloudFormation
- AWS Systems Manager
- AWS OpsWorks
- AWS Elastic Beanstalk
- Hands-on lab: Automating infrastructure deployment with AWS CloudFormation

### Module 10: Caching

- Caching on AWS with Amazon CloudFront
- Session management
- Amazon DynamoDB Accelerator (DAX)
- Amazon ElastiCache

### Module 11: Building decoupled architectures

- Amazon Simple Queue Service (Amazon SQS)
- Amazon Simple Notification Service (Amazon SNS)

### Module 12: Microservices and serverless architectures

- Amazon Elastic Container Service (Amazon ECS)
- AWS Fargate
- AWS Lambda
- Amazon API Gateway
- AWS Step Functions
- Hands-on lab: Implementing a serverless architecture with AWS Managed Services

### Module 13: RTO/RPO and backup recovery setup

- Disaster planning
- Data replication
- Recovery strategies
- AWS Storage Gateway

### Module 14: Optimization and review

- Best practices for optimization
- Review questions

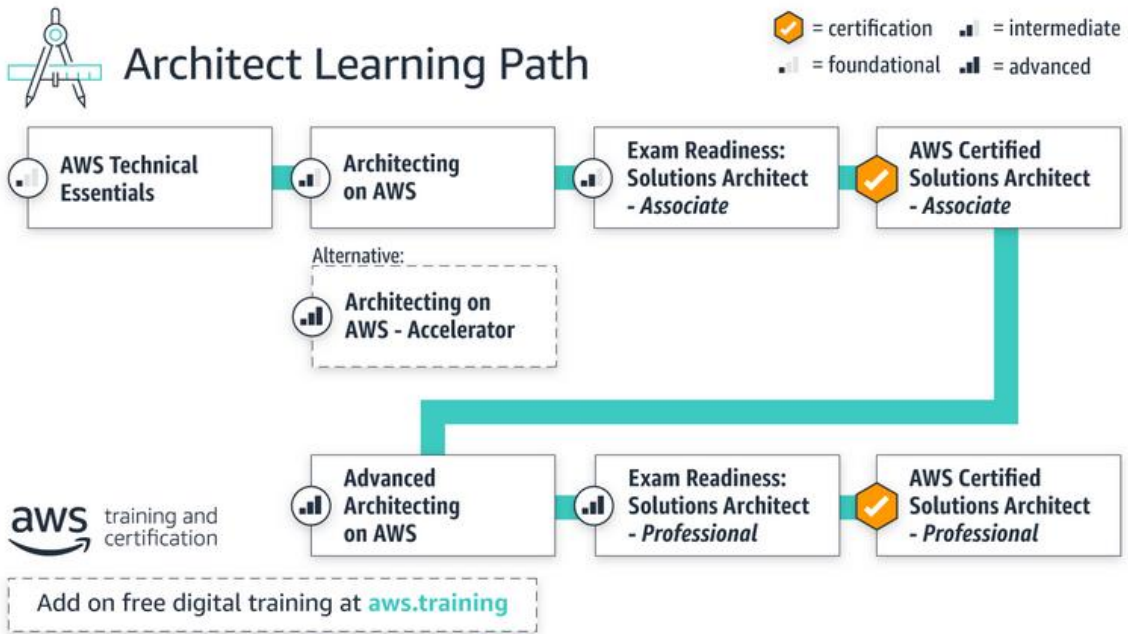
## Trainer Information

Raymond is a technical trainer in Great China Region for over 15 years. He has a solid knowledge in teaching Architecture, and Application Development to Government Enterprise, Small and Medium Business and Universities. He is an experienced IT consultant in many projects including web and app development, intranet and portal development, server setup and configuration.

Kitson is a technical trainer with 8 AWS Certifications. He has more than 4 years of experience in teaching Cloud Computing, Web Development and Programming in VTC. He has 4 years of experience in project management and software development of worldwide hospitality IPTV systems.

## Certification Exam:

### AWS Certified Solution Architect - Associate



## Target Audience

- Solutions Architects
- Solution Design Engineers

## Enrolment Methods

1. Scan the QR code to check training schedule then complete the enrolment and payment online OR
2. Mail the crossed cheque with payee name "Hong Kong Productivity Council" (in HK dollar) to HKPC Academy, Hong Kong Productivity Council, 3/F, HKPC Building, 78 Tat Chee Avenue, Kowloon (attention to Mr Desmond CHAN). Please indicate the course name and course code on the envelope.



[Enrolment Link](#)

Supporting Organisations (In arbitrary order)

