hkpc Academy 生產力學院

Developing on AWS

Course Fee: HK$12,600 (May apply up to HK$8,400 subsidy)
*Maximum saving, with the final grant subjects to approval.

Applying RTTP   TechEd

This course is designed to teach you how to:

- Set up the AWS SDK and developer credentials for Java, C#/.Net, Python, and JavaScript.
- Use the AWS SDK to interact with AWS services and develop solutions.
- Use Amazon Simple Storage Service (Amazon S3) and Amazon DynamoDB as data stores.
- Integrate applications and data by using Amazon Kinesis, AWS Lambda, Amazon Simple Queue Service (Amazon SQS), Amazon Simple Notification Service (Amazon SNS), and Amazon Simple Workflow Service (Amazon SWF).
- Use AWS Identity and Access Management (IAM) for service authentication.
- Use Web Identity Framework and Amazon Cognito for user authentication.
- Use Amazon ElastiCache and Amazon CloudFront to improve application scalability.
- Deploy applications by using AWS Elastic Beanstalk and AWS CloudFormation.

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)
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

Developing on AWS helps developers understand how to use the AWS SDK to develop secure and scalable cloud applications. The course provides in-depth knowledge about how to interact with AWS using code and covers key concepts, best practices, and troubleshooting tips.

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 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 to AWS
- Introduction to AWS
- Cloud scenarios
- Infrastructure overview

Module 2: Introduction to Developing on AWS
- Getting started developing on AWS
- Introduction to developer tools
- Introduction to management tools

Module 3: Introduction to IAM
- Shared responsibility model
- Introduction to IAM
- User authentication and authorization

Module 4: Introduction to the lab
- Get access to the lab
- Choose your language
- Choose your dev instance
- Connect to your dev instance
- Hands-on lab 1: Ready, set, go! Programming languages: Java, .Net, Python ; OS: Windows, Linux

Module 5: Developing solutions with Amazon S3
- Overview of AWS storage options
- Key concepts
- Best practices
- Troubleshooting
- Course scenario
- Hands-on lab 2: Developing storage solutions with Amazon S3

Module 6: Developing flexible NoSQL solutions with Amazon DynamoDB
- Introduction to AWS Database Options
- Amazon DynamoDB
- Developing with Amazon DynamoDB
- Best practices
- Troubleshooting
- Course scenario
- Hands-on lab 3: Developing flexible NoSQL solutions with Amazon DynamoDB

Module 7: Developing solutions with AWS Lambda
- What is serverless computing?
- Introduction to AWS Lambda
- How AWS Lambda works
- Use cases
- Best practice
- Course scenario

Course Outline

Module 8: Developing solutions with Amazon API
- Introduction to Amazon API Gateway
- Developing with Amazon API Gateway
- Best practices
- Introduction to AWS Serverless Application Model (SAM)
- Course scenario
- Hands-on lab 4: Developing Event-Driven Solutions with AWS Lambda

Module 9: Developing solutions with Amazon SQS &SNS
- Why use a queueing service?
- Developing with Amazon Simple Queue Service (SQS)
- Developing with Amazon Simple Notification Service (SNS)
- Developing with Amazon MQ
- Hands-on lab 5: Developing messaging solutions with Amazon SQS and SNS

Module 10: Developing solutions with AWS Step Functions
- Understanding the need for AWS Step Functions
- Introduction to AWS Step Functions
- AWS Step Functions use case

Module 11: Caching information with Amazon ElastiCache
- Caching overview
- Caching with Amazon ElastiCache
- Caching strategy

Module 12: Getting started with containers
- Why containers?
- Introduction to Docker containers
- Getting started with Docker
- Introduction to Amazon Container Services
- Hands-on lab 6: Getting started with Docker containers OS: Linux

Module 13: Developing secure solutions
- Securing your applications
- Authenticating your applications to AWS
- Authenticating your customers
- Course scenario

Module 14: Deploying Applications
- Introduction to DevOps
- Introduction to deployment and testing strategies
- Deploying applications with AWS Beanstalk
- Course scenario
- Hands-on lab 7: Building an end to end application
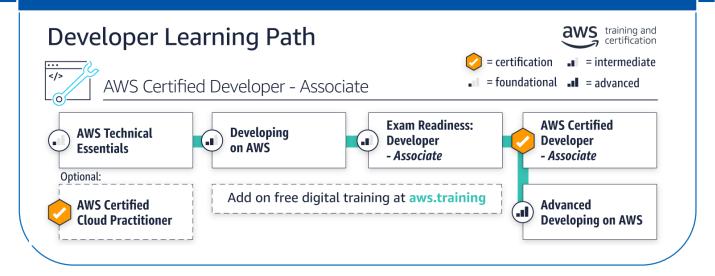- Course evaluation

Target Audience

- Intermediate-level software developers

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Certification Exam:

AWS Certified Developer- Associate

Developer Learning Path

aws training and certification

AWS Certified Developer - Associate

= certification   = intermediate

= foundational   = advanced

AWS Technical Essentials → **Developing on AWS** → **Exam Readiness: Developer - Associate** → **AWS Certified Developer - Associate**

Optional:
AWS Certified Cloud Practitioner

Add on free digital training at **aws.training**

Advanced Developing on AWS

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.

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)

50th Anniversary
HKCS HONG KONG COMPUTER SOCIETY 香港電腦學會

WTIA 香港無線科技商會

Hong Kong Software Industry Association 香港軟件行業協會

e Cloud valley

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