



NUTECH COMPUTER TRAINING INSTITUTE

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AWS Certified Developer Program

The AWS Certified Developer

- **Design, develop and deploy cloud based solutions using AWS**
- **Understand the core AWS services, uses, and basic architecture best practices**
- **Develop and maintain applications written for Amazon Simple Storage Services (S3), Amazon DynamoDB, Amazon Simple Queue Service (SQS), Amazon Simple Notification Service (SNS), Amazon Simple Workflow Service (SWS), AWS Elastic Beanstalk, and AWS CloudFormation**

AWS Knowledge

- **Professional experience using AWS technology**
- **Hands-on experience programming with AWS APIs**
- **Understanding of AWS Security best practices**
- **Understanding of automation and AWS deployment tools**
- **Understanding storage options and their underlying consistency models**
- **Excellent understanding of at least one AWS SDK**

General IT Knowledge

- **Understanding of stateless and loosely coupled distributed applications**
- **Familiarity developing with RESTful API interfaces**
- **Basic understanding of relational and non-relational databases**
- **Familiarity with messaging & queuing services**

What are the requirements?

- You will need to set up an AWS Account .
- A Windows, Linux or Mac PC/Laptop
- Knowledge of at least 1 programming language (PHP, Python, Ruby etc) is advantageous

Course Outline

0. Introduction to Cloud Computing

- 0.1 Cloud computing
- 0.2 Comparison of leading cloud platforms
- 0.3 Cloud applications
- 0.4 The role of Cloud Computing Developer

1. Domain 1.0: AWS Fundamentals

1.1 Identify and recognize cloud architecture considerations, such as fundamental components and effective designs.

Content may include the following:

- * How to design cloud services
- * Database concepts
- * Planning and design
- * Familiarity with architectural trade-off decisions (high availability vs. cost, Amazon Relational Database Service (RDS) vs. installing your own database on Amazon Elastic Compute Cloud (EC2))
- * Amazon S3, Amazon Simple Workflow Service (SWS), and Messaging
- * DynamoDB, AWS Elastic Beanstalk, AWS CloudFormation
- * Elasticity and scalability

2. Domain 2.0: Designing and Developing

2.1 Identify the appropriate techniques to code a cloud solution. Content may include the following:

- * Configure an Amazon Machine Image (AMI)
- * Programming with AWS APIs

3. Domain 3.0: Deployment and Security

3.1 Recognize and implement secure procedures for optimum cloud deployment and maintenance. Content may include the following:

- * Cloud Security Best Practices

3.2 Demonstrate ability to implement the right architecture for development, testing, and staging environments. Content may include the following:

- * Shared Security Responsibility Model
- * AWS Platform Compliance
- * AWS security attributes (customer workloads down to physical layer)

- * Security Services
- * AWS Identity and Access Management (IAM)
- * Amazon Virtual Private Cloud (VPC)
- * CIA and AAA models, ingress vs. egress filtering, and which AWS services and feature fit

4. Domain 4.0: Debugging

Content may include the following:

- * General troubleshooting information and questions
- * Best Practices in debugging