

CHARTERED 
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

CERTIFIED CLOUD ARCHITECT™

CCA™

**Fully Accredited
By:**

Chartered Institute of
Professional Certifications

CPD
Certification Service



PROGRAM OVERVIEW



According to industry experts, approximately **80% of cloud migration and implementation failures are due to improper planning and lack of understanding of cloud architecture best practices**. As organizations increasingly adopt cloud computing for greater agility, efficiency, and innovation, it is crucial to have skilled professionals who can effectively design and implement cloud solutions while minimizing risks and maximizing benefits. This Certified Cloud Architect (CCA™) program is designed to provide you with an in-depth understanding of **cloud architecture principles and equip you with the skills necessary to successfully design, deploy, and manage cloud solutions for your organization**.

Throughout the program, you will be exposed to every critical aspect of cloud architecture, from understanding the **various cloud service models and deployment types to mastering cloud security, cost management, and monitoring strategies**. You will gain practical experience in designing and implementing cloud-based solutions that meet global industry standards, **incorporating best practices for scalability, high availability, and fault tolerance**. The program also emphasizes the importance of **multi-cloud strategies**, ensuring that you are prepared to navigate the complexities and benefits of managing resources across multiple cloud providers.

By incorporating the principles and methodologies learned in the CCA™ program into your organization's cloud strategy, you will be well-equipped to **design effective cloud solutions** that not only meet your organization's needs but also align with industry best practices and compliance requirements. Additionally, you will have the skills necessary to **evaluate and optimize existing cloud infrastructure and applications**, ensuring maximum efficiency and performance.

Upon successful completion of the program and passing the Chartered exam, you will be awarded the **Certified Cloud Architect (CCA™)** designation, which you can use to showcase your professional expertise and commitment to excellence in cloud architecture. This globally recognized and respected designation is a trademarked charter developed by the **Chartered Institute of Professional Certifications**, with lifelong validity. The CCA™ designation is also independently accredited by **CPD as adhering to the highest standards for continuing professional development**, ensuring that your knowledge and skills remain relevant and up-to-date in the rapidly evolving cloud computing landscape.

ACCREDITATIONS



4.8



4.6



KEY SKILLS YOU WILL GAIN

From This Program



**CLOUD SYSTEM ARCHITECTURE
SCALABILITY & ELASTICITY TECHNIQUES
HIGH AVAILABILITY STRATEGIES
FAULT TOLERANCE DESIGN**

**CLOUD SECURITY BEST PRACTICES
JAVASCRIPT AND SQL TUNING
CODE REVIEW AND FAULT ANALYSIS CLOUD
COMPUTING & SOLUTION ARCHITECTURE**

**GOOGLE CLOUD PLATFORM (GCP)
VIRTUAL NETWORK CONFIGURATION
LOAD BALANCING OPTIMIZATION
TRAFFIC MANAGEMENT TECHNIQUES**

**NETWORK SECURITY IMPLEMENTATION
SOFTWARE DEVELOPMENT
HYBRID CLOUD AND OPEN SOURCE
QUANTUM COMPUTING
DATA LAKES AND EDGE COMPUTING**

**CLOUD-NATIVE AND OMNI CLOUD
PLATFORM AS A SERVICE (PAAS)**

YOUR FACULTY DIRECTOR



Tasha Penwell

Certified Solutions Architect And A Highly-Skilled AWS Authorized Instructor

Tasha Penwell is a seasoned educator with a passion for transforming students through advanced computer technologies. With over 8 years of experience in higher education, Tasha is renowned for her excellence in **instructing courses spanning the breadth of Microsoft products, web development, data analytics, and cloud computing.**

As an **AWS educator, Certified Solutions Architect, and Certified AWS authorized instructor**, Tasha brings a wealth of knowledge and expertise to the classroom, which she is always eager to share with her students. With extensive experience in teaching AWS courses, Tasha has taught nearly 6 AWS Academy courses to date. She is also a renowned expert in the field, having served as a **well-established AWS Subject Matter Expert (SME)**. Her professional focus extends beyond teaching, with a keen interest in AWS Security, Alexa development, and AR development.

OUR PARTICIPANTS

Over 70% of FORTUNE 500 Companies Have Attended Our Accredited Programs Before



Goldman Sachs



SAMSUNG



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BURBERRY



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IKEA



VOLVO



HYUNDAI



Pfizer

Life is our life's work



Nestlé



PROGRAM AGENDA



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MODULE 1: WHAT IS CLOUD COMPUTING?

Overview: What Is Cloud Computing
Lesson 1: Introduction To Cloud Computing
Lesson 2: Cloud Deployment Models
Lesson 3: Disadvantages Of Cloud Computing

MODULE 2: WHAT ARE THE RULES AND RESPONSIBILITIES OF THE CLOUD

Overview: What Are The Rules And Responsibilities Of The Cloud
Lesson 1: Distinguishing Responsibilities Between CSP And Customers
Lesson 2: Highly Available Infrastructure

MODULE 3: WHAT ARE THE CHALLENGES OF USING THE CLOUD

Overview: What Are The Challenges Of Using The Cloud
Lesson 1: Understanding The Challenges
Lesson 2: Factors In Your Decision (Tenancy)
Case Study 1: DAO
Case Study 1: DAO Continue

MODULE 4: HOW TO USE VERSION CONTROL WITH THE CLOUD

Overview: How To Use Version Control With The Cloud
Lesson 1: Version Control Fundamentals
Lesson 2: Creating And Using A Bucket

MODULE 5: USING A DATA WAREHOUSE IN THE CLOUD

Overview: Using A Data Warehouse In The Cloud
Lesson 1: Data Warehouse

MODULE 6: DESCRIBE THE DATA LIFECYCLE IN THE CLOUD

Overview: Describe The Data Lifecycle In The Cloud
Lesson 1: Introduction And Best Practices
Lesson 2: CIA Triad And DIE Model

MODULE 7: DESCRIBE SECURITY AND COMPLIANCE IN THE CLOUD

Overview: Describe Security And Compliance In The Cloud
Lesson 1: Introduction And Compliance
Case Study 2: Capital One Data Breach

MODULE 8: IDENTIFY HOW DATA IS MIGRATED

Overview: Identify How Data Is Migrated
Lesson 1: Maintain The CIA Triad When Migrating Data
Lesson 2: Identify Difference Tools To Aid In Migration
Lesson 3: Describe Different Migration Strategies Related To Cloud Computing
Lesson 4: Knowledge Check



PROGRAM AGENDA



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MODULE 9: USE CLOUD COMPUTING WITH AI AND ML

Overview: Use Cloud Computing With AI And ML

- Lesson 1: Identify Cloud Resources For AI/ML
- Lesson 2: Understand Costs Associated With AI And ML Applications
- Lesson 3: Describe Use Cases For Using Cloud-Based AI And ML Applications

MODULE 10: CLOUD SOLUTIONS

Overview: Cloud Solutions

- Lesson 1: Introducing The Fourth Industrial Revolution With The Cloud
- Lesson 2: Understanding The Visibility Of Assets And Impact On Business Operations
- Lesson 3: Describe The Difference Between Container And Virtual Machines For Business Operations
- Lesson 4: Developing An Approach To Stakeholder Management
- Lesson 5: AWS Cloud Adoption Framework
- Lesson 6: Scenario And Knowledge Check

MODULE 11: DESIGNING HIGH AVAILABILITY SOLUTIONS

- Overview: Designing High Availability Solutions
- Lesson 1: Identify How High Availability Is Determined

Lesson 2: Understand How Cloud Computing Supports High Availability

- Lesson 3: Develop An Architecture That Supports High Availability
- Lesson 4: Disaster Recovery

MODULE 12: IMPLEMENTING HIGH - AVAILABILITY SOLUTIONS FOR CLOUD DEPLOYMENT

Overview: Implementing High - Availability Solutions For Cloud Deployment

- Lesson 1: Understand Availability Needs
- Lesson 2: Describe The Design Principles Of Maintaining High Availability
- Lesson 3: Design A Workload Service Architecture To Meet Availability Needs

MODULE 13: CLOUD COMPUTING ON AWS

Overview: Cloud Computing On AWS

- Lesson 1: Review Case Studies of Organizations Using AWS
- Lesson 2: Review The AWS Code

MODULE 14: WHAT IS THE FUTURE OF CLOUD COMPUTING

- Overview: What Is The Future Of Cloud Computing
- Lesson 1: Identify The Three Main Cloud Providers In Today's Marketplace



PROGRAM AGENDA

Lesson 2: Identify Serverless Computing And
Automation Services That Can Help Businesses
Innovate

Lesson 3: Knowledge Check

EXAMINATION



YOUR CHARTER DESIGNATION



Upon completing the **Certified Cloud Architect (CCA™)** program and passing the Chartered exam, you will be awarded the prestigious CCA™ designation, a globally recognized trademark with lifelong validity that demonstrates your expertise in **designing and implementing effective cloud architectures that align with organizational goals.**

This industry-recognized trademarked charter has been developed by the **Chartered Institute of Professional Certifications**, an industry leader in professional certifications. The program's content has been independently accredited and certified by **CPD**, ensuring that it adheres to continuing professional development standards. This designation will significantly enhance your credibility and marketability to potential employers or clients, making you stand out as a highly skilled and knowledgeable IT professional in a competitive job market.

ABOUT US

49,525

Business Leaders Have Attained Their Chartered Certifications Since 2009

390

Certified and Fully Accredited Programs

87%

Chartered Leaders Have Reported Career Promotions and Enhancements

Chartered Institute of Professional Certifications

All of Chartered Institute of Professional Certifications program are fully accredited programs. The professional charter and designations are trademarked credentials that can only be used by professionals who have completed and passed our accredited program. It is also independently accredited by CPD as adhering to the highest standards of continuing professional principles.

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OUR FACULTY DIRECTORS

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UNIVERSITY OF MICHIGAN



**THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE**



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Business
School**

**London
Business
School**



CONTACT US TODAY

We Thank You for Your Ongoing Support
of Our Programs

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