E&ICT Academy, IIT Kanpur
A Joint Initiative of MeitY & IIT Kanpur

Professional Certificate Program in CLOUD COMPUTING AND DEVOPS

AI Including GenAI and next-gen Cloud & DevOps

In Collaboration with aws | Microsoft

Powered by simplilearn

Practice
200+ exercises & projects

Earn
Blockchain-verified certificate from E&ICT, IITK

Access
AI-Powered Job Assistance

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Join the Growing Cloud Industry

The demand for cloud computing experts is soaring, with a 23.1% YoY surge in the last 12 months. Cloud professionals enjoy a positive career outlook, as indicated by a turnover rate of 42% for employees with these valuable skills.

Jobs
Naukri

60K+
Cloud Job Roles Available in India

Jobs
Naukri

25K+
DevOps Job Roles Available in India

Salary
Glassdoor

₹6L - ₹50L
Average annual salary

About the Program

As secure, scalable cloud infrastructure becomes essential, providers like AWS, Azure, and Google Cloud are driving innovation in data storage and management. Amazon Web Services continues to dominate the public cloud market with a 32% market share, followed by Microsoft Azure at 23% and Google Cloud at 11%.

This program, offered in collaboration with E&ICT Academy, IIT Kanpur, equips you with the technical skills and training needed to succeed in the rapidly expanding Cloud and DevOps industry.

You'll gain both practical experience and theoretical knowledge through cloud labs, self-paced videos, live classes with industry experts, peer collaboration, and masterclasses from IIT Kanpur faculty.

Starting with the fundamentals of Cloud and DevOps, including AWS and Azure services, Linux and Python, the rigorous curriculum strengthens your foundational knowledge. You will then gain practical skills to build, deploy, and manage AWS cloud architecture and implement DevOps on AWS.

Next, you'll learn how to manage and maintain Azure cloud architecture and apply DevOps best practices on Azure. With this program, you will also explore the impact of GenAI on Cloud Computing and learn about the latest trends shaping the cloud and DevOps landscape.

Upon completion, you will gain access to Simplilearn's AI-powered Job Assistance services which will help you take the next step in your career.

Key Features of the Program

Expert led Cloud and DevOps learning ecosystem

Comprehensive Curriculum

- 200+ hours of comprehensive learning content on cloud computing (AWS, Azure, Google Cloud) and DevOps
- GenAI in the cloud and the latest trends in cloud computing, including DevSecOps, quantum computing, edge computing, AIOps, GitOps, and more

Taught by Experienced Professionals

- Certified professionals with years of hands-on expertise
- Expert sessions by IIT Kanpur faculty

Live Virtual classes with Hands-on Learning

- Live instructor-led training by industry experts
- Official self-paced content by AWS Skillbuilder and Microsoft Azure
- 30+ hands-on projects in sand-box labs, 20+ cloud services, and 200+ guided practice exercises

Dedicated Learning Support

- Dedicated cohort manager
- Flexi-Learn - Access recordings to always maintain learning progress
- Mentoring session(s)
- 24x7 chat support
- Slack-based peer-to-peer learning and engagement

Opportunity to Build Cloud and DevOps Portfolio

- Official Microsoft Azure-branded certificates
- Official blockchain-verified program completion certificate from E&ICT Academy, IIT Kanpur

AI-Powered Simplilearn Career Assistance

- Networking & Group Mentoring Session by Industry Experts
- Exhaustive Q Bank for Aptitude Assessment
- Soft Skills Interview Preparation
- AI-powered Resume-building Assistance
- AI-powered LinkedIn Profile Optimization
- 1:1 AI-Powered Mock Interview
- 1:1 Mentoring Session with Industry Experts

Program Pedagogy

Instructor-led Training
Get trained by top industry experts

Projects and Exercises
Get hands-on experience through projects

Self-paced videos
Learn at your own pace with self-learning videos from AWS Azure

Dedicated Learning Management Team
To help you with your learning needs

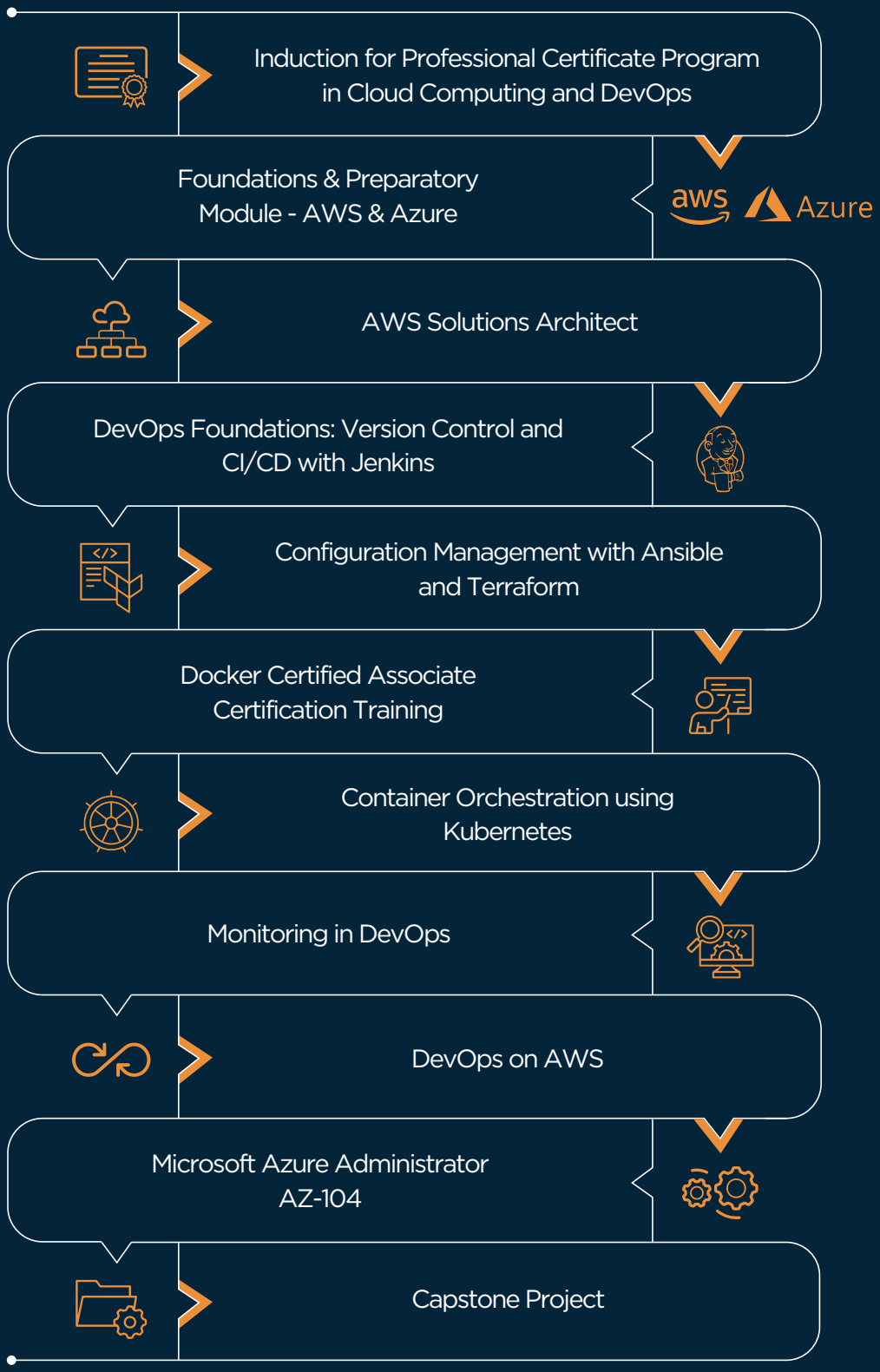
Peer Networking and Group Learning
Improve your professional network and learn from other peers via our Slack community

In-depth personalized Learning
Hands-on exercises, lesson end projects, breakout rooms, and capstone projects

Experiential Learning
Get involved in group activities to solve real-world problems

Learning Journey

Core Topics



Electives:

- IITK Academic Masterclass
- Generative AI Masterclass
- Gen AI on Cloud
- Designing Microsoft Azure Infrastructure Solutions AZ:305
- DevSecOps
- Google Cloud Platform Architect Training
- Python Training
- Microsoft Azure DevOps Engineer Expert AZ-400
- Data Migration and Resilience
- Latest Trends in Cloud and DevOps

Become an expert in cloud computing with this course:

- Up to 150+ hours of in-depth Cloud coverage
- Up to 100 hours of in-depth DevOps coverage

Learning Path Details

Step 1

Induction for Professional Certificate Program in Cloud Computing & DevOps

In this introductory course, you'll explore the program's structure, curriculum, and learning outcomes. Understand what lies ahead and how this program can propel you toward your professional goals.

Step 2

Foundations & Preparatory Module - AWS & Azure

- Complete the foundation course at your own pace to delve into the basics of AWS and Azure.
- Establish a strong foundation in AWS and Azure Cloud.
- This course can be used as a benchmark for upcoming courses.
- We recommend completing each self-learning module before attending the respective live classes.

Step 3

AWS Solutions Architect

By the end of this AWS Solutions Architect training, you will be able to:

1 Overview of all course modules

Learning Outcomes

- Develop solutions and leverage AWS architectural best practices.
- Design and deploy scalable, highly available, and fault-tolerant systems on AWS.
- Migrate an existing on-premises application to AWS.
- Identify the ingress and egress of data to and from AWS.
- Select the appropriate AWS service based on data, compute, database, or security requirements.
- Estimate AWS costs and identify cost control mechanisms.

2 Lesson 01 - AWS Solutions Architect - Course Introduction

In this course you will learn:

- Introduction to AWS
- What is Cloud Computing
- What is AWS
- Why AWS
- History of AWS
- Market Trends
- Skills Covered
- Why this course?
- Course Outline
- Course Components

3 Lesson 02 - AWS Solutions Architect- AWS Overview

In this course you will learn:

- AWS Infrastructure
- AWS Core Services
- AWS Account Set Up
- "Introduction to AWS Management Console"
- AWS Billing
- AWS Support
- Billing Alerts
- Delegate Access
- AWS Identity and Access Management (IAM)
- AWS Command Line Interface (AWS CLI)

4 Lesson 03 - AWS Solutions Architect - Compute and Related Features

In this course you will learn:

- Introduction to Amazon EC2
- Placement Groups
- EC2 Instance Metadata
- Hibernation
- EBS
- EBS Security
- Elastic Load Balancer
- ELB Logs
- Auto Scaling

5 Lesson 04 - AWS Solutions Architect - Storage Services

In this course you will learn:

- Introduction to Amazon S3
- Version Control in Amazon S3
- S3 Lifecycle Management
- Amazon S3 Replication
- Storage Gateway
- S3 Encryption
- Elastic File System
- Amazon FSx
- Unauthorized Link Access
- Amazon Athena

6 Lesson 05 - AWS Solutions Architect - VPC, Networking and Content Delivery

In this course you will learn:

- Security group and NACL
- VPC Flow Logs
- NAT and Internet Gateway
- Private Link and Bastion Host
- VPC Connections
- CloudFront
- Lambda@Edge
- Global Accelerator
- Route 53
- Route 53 Routing Policies

7 Lesson 06 - AWS Solutions Architect - Databases

In this course you will learn:

- Introduction to Databases
- DynamoDB
- Amazon ElastiCache
- Amazon Redshift

8 Lesson 07 - AWS Solutions Architect -Security and IAM

In this course you will learn:

- Responsibility Models in AWS
- AWS IAM
- AWS Cognito
- AWS Control Tower
- Cloud Security
- WAF
- AWS Shield
- AWS Secrets Manager
- AWS Systems Manager
- AWS Config

9 Lesson 08 - AWS Solutions Architect - Serverless and Application Services

In this course you will learn:

- Lambda
- API Gateway
- SQS Introduction
- SNS
- EventBridge
- Kinesis

10 Lesson 09 - AWS Solutions Architect - Monitoring and Automation

In this course you will learn:

- CloudWatch
- CloudFormation

11 Lesson 10 - AWS Solutions Architect - Container Service

In this course you will learn:

- Elastic Container Service

Course End Projects

1. Set Up and Monitor a WordPress Instance

Set up a WordPress instance on AWS using EC2 and RDS to ensure a reliable and secure online presence. Monitor the instance using CloudWatch to track performance, uptime, and security, helping meet organizational goals effectively.

2. Real-time Data Management

Deploy AWS infrastructure for real-time data management using services like Kinesis or Kafka to process streaming data. This provides organizations with the ability to analyze and act on data as it's generated, ensuring scalability and cost-efficiency.

Tools Covered

Amazon EC2 | Amazon RDS | Amazon S3

Step 4

DevOps Foundations: Version Control and CI/CD with Jenkins

Upon completion of this module, you will:

1 Learning Outcomes

- Understand the core principles, benefits, and challenges of adopting a DevOps approach.
- Develop practical skills in leveraging DevOps tools and technologies, including Jenkins, GitHub Actions, and version control systems.

2 Course Curriculum

- Lesson 01 -Entering the World of DevOps
- Lesson 02 -Version Controlling in DevOps
- Lesson 03 -CI/CD Pipeline with Jenkins
- Lesson 04 -Jenkins Jobs and Plugins
- Lesson 05 -Jenkins Build Tools
- Lesson 06 -Jenkins Pipeline

Course End Projects

1. Jenkins Backup and Restore on AWS S3

Implement automated backups for Jenkins data using AWS S3 to ensure data is securely stored. This setup allows for easy recovery in case of failure, protecting critical application data.

2. CI/CD Pipeline Implementation for Software on AWS EC2

Build a CI/CD pipeline using Jenkins to automate testing, building, and deploying a software application on AWS EC2. This ensures rapid and continuous delivery of updates with minimal manual intervention.

Tools Covered

Jenkins | Amazon S3 | Amazon EC2 | git | GitHub

Step 5

Configuration Management with Ansible and Terraform

Upon completion of this module, you will:

1 Learning Outcomes

- Develop a comprehensive understanding of configuration management and infrastructure as a code (IAC) concepts, enabling efficient orchestration and automation of complex IT environments.
- Master Ansible's features and benefits, compare it with Puppet and Chef and apply it in real-world scenarios.
- Acquire practical hands-on experience with Ansible and Terraform, ensuring proficiency in their usage for configuration management and infrastructure automation.
- Gain expertise in Terraform's IT automation role, compare it with Cloud Formation and Pulumi and harness its power for efficient infrastructure management.

2 Course Curriculum

- Lesson 01 -Getting Started with Configuration Management
- Lesson 02 -Ansible Configuration
- Lesson 03 -Ansible Ad Hoc Commands
- Lesson 04 -Working with YAML
- Lesson 05 -Writing Ansible Playbooks
- Lesson 06 -Working with Ansible Roles and Vault
- Lesson 07 -Getting Started with Infrastructure as Code (IaC)
- Lesson 08 -Terraform Basics and Workflow
- Lesson 09 -Terraform State
- Lesson 10 - Read, Generate, and Modify Configurations

Course End Projects

1. Deploying Web Application Using Ansible

As a DevOps engineer, deploy a blogging platform using Ansible to automate the setup on an Nginx server. This ensures the application is ready for use with minimal manual configuration.

2. InfraPro: Automate Infrastructure Provisioning with Terraform and Ansible

Use Terraform for infrastructure provisioning and Ansible for configuration management, enabling automated and consistent deployment of environments. This ensures smooth scaling and management of infrastructure resources.

Tools Covered

ANSIBLE

Terraform

Step 6

Containerization with Docker

Upon completion of this module, you will:

1 Learning Outcomes

- Gain a thorough understanding of Docker essentials, including its architecture, image management, and registry usage, laying the groundwork for proficient containerization.
- Develop proficiency in Docker networking principles and orchestration techniques using Swarm and Kubernetes, facilitating efficient management of containerized applications.
- Explore advanced Docker topics, including storage mechanisms, microservices architecture, and security best practices, ensuring robust and secure containerized environments.
- Implement Docker security best practices and deploy effective security measures within containerized environments, enhancing your skills in container security.

2 Course Curriculum

- Lesson 01 -Docker Introduction
- Lesson 02 -Managing Docker Images and Registries
- Lesson 03 -Configuring Docker Storage and Volumes
- Lesson 04 -Docker Container Orchestration
- Lesson 05 -Networking in Docker
- Lesson 06 -Microservices Architecture in Docker

3 Course-End Projects

- Swarm Microservice Deployment: Deploy a scalable, multi-service voting application on a Docker Swarm manager node. Ensure efficient orchestration, fault tolerance, and seamless monitoring with Docker Visualizer.
- To add the tools covered after the Course-End projects
- Deploying Multi-Tier Application: Demonstrate the deployment of a multi-tier application using Docker Compose. Configure public IP addresses and set up security group rules for accessing the frontend, API, and database services.

Tools Covered

docker

Step 7

Container Orchestration using Kubernetes

Upon completion of this module, you will:

1 Learning Outcomes

- Develop a comprehensive understanding of Kubernetes fundamentals, including its architecture, container runtimes, and key components such as Kubelet, etc., which is crucial for effective container orchestration.
- Learn deployment strategies, workload scaling techniques, self-healing pod mechanisms, and configuration management applications within Kubernetes, ensuring smooth deployment and efficient management of containerized applications.
- Explore Kubernetes networking models, services, load balancing strategies, and security measures like RBAC, secrets management, and network policies, enhancing your knowledge of networking and security in Kubernetes environments.

2 Course Curriculum

- Lesson 01 -Core Concepts
- Lesson 02 -Kubernetes Cluster
- Lesson 03 -Workloads
- Lesson 04 -Scheduling
- Lesson 05 -Services, Load Balancing, and Networking
- Lesson 06 -Storage

3 Course-End Projects

Deploy the Application Using the Kubernetes Dashboard: Deploy a multi-tier PHP and MySQL application using Kubernetes. Configure user roles, storage, service verification, namespace restrictions, quota limits, and data management to ensure secure and efficient application deployment.

Tools Covered

Step 8

Monitoring in DevOps

Upon completion of this module, you will:

1 Learning Outcomes

- Understand core concepts of Monitoring.
- Learn to set up Prometheus for metrics management.

2 Course Curriculum

- Lesson 01 -Introduction to Monitoring and Prometheus
- Lesson 02 -Implementing Monitoring with Prometheus

Tools Covered

Step 9

DevOps on AWS

Upon completion of this module, you will:

1 Learning Outcomes

- Master core DevOps principles and practices.
- Leverage AWS services to build and deploy applications.
- Understand infrastructure as code using AWS CloudFormation.
- Implement continuous integration and continuous delivery (CI/CD) automation.
- Leverage AWS CodePipeline, CodeBuild, and CodeDeploy for application deployment.
- Master monitoring techniques for AWS applications.
- Implement security and compliance practices for AWS DevOps.
- Troubleshoot and debug AWS applications.
- Get hands-on experience with real-world DevOps scenarios and projects on AWS.

2 Course Curriculum

- Lesson 01 -Infrastructure as Code in AWS
- Lesson 02 -Continuous Integration and Continuous Delivery (CI/CD) on AWS
- Lesson 03 -Containerization and Orchestration on AWS

3 Course-End Projects

Automating CI/CD Pipeline for Spring Boot Application Deployment on AWS: Spring Boot application on Amazon ECS. Integrate CodePipeline, CodeBuild, and ECR to enable seamless application updates with Docker containerization.

Tools Covered

AWS CodeBuild

Codedeploy

AWS CloudWatch

AWS CodePipeline

Step 10

Microsoft Certified Azure Administrator AZ-104

Upon completion of this module, you will:

1 Learning Outcomes

- Manage Azure Active Directory (Azure AD) objects.
- Manage subscriptions and governance.
- Configure Azure files and Azure Blob Storage.
- Create and configure containers.
- Implement and manage virtual networking.
- Configure load balancing.
- Integrate an on-premises network with an Azure virtual network.
- Implement backup and recovery.
- Secure and manage storage.
- Automate the deployment of virtual machines (VMs) with Azure Resource Manager templates.
- Create and configure Azure App Services.
- Secure access to virtual networks.
- Monitor and troubleshoot virtual networking.
- Monitor resources with Azure Monitor.

2 Course Curriculum

- Lesson 01 -Course Introduction
- Lesson 02 -Manage Azure identities
- Lesson 03 -Implement & Manage Storage
- Lesson 04 -Deploy and Manage Azure Compute Resources
- Lesson 05 -Configure and Manage Virtual Networking
- Lesson 06 -Monitor and Maintain

Course End Projects

1. Connecting Internet Workloads with VNet Peering and Custom RBAC Role Assignment Project Description

This project focuses on setting up secure and efficient connectivity between virtual networks using VNet peering for Rand Enterprises Corporation. It involves creating virtual networks, establishing VNet peering, and onboarding a user with a custom Role-Based Access Control (RBAC) role. The employee will be able to manage network and storage within a virtual machine (VM), ensuring that the principle of least privilege is applied for enhanced security.

2. High Availability Architecture with Load Balancer and Command-Line Automation Project Description:

This project involves creating a highly available web application architecture for Rand Enterprises Corporation by distributing incoming traffic to healthy service instances via an Azure public load balancer. The solution aims to ensure no downtime by using health probes and backend virtual machines (VMs). The operations team seeks to implement this architecture using command-line tools to automate future deployments, ensuring secure communication between the VMs and end-users through the load balancer.

Tools Covered

Azure Virtual Network (VNet)	Azure Active Directory (AD)	Azure Load Balancer
Azure Virtual Machines (VMs)	Azure App Service	Azure Traffic Manager
Azure Key-Vault	Blob storage	AKS
Azure Role-Based Access Control (RBAC)	Azure CLI (Command-Line Interface)	

Step 11

Capstone Project

- This capstone project will allow you to implement the skills learned throughout this training.
- Dedicated mentoring sessions will teach you how to solve real-world, industry-aligned problems.
- The project is the final step in the learning path and will enable you to showcase your expertise to future employers.

Capstone Project

To add a new page in the brochure with details on Capstone projects

1 Microservice Containerization with AWS CodePipeline and ECS Cluster

Set up a DevOps pipeline to automate CI/CD for containerized microservices using AWS CodePipeline and ECS Cluster. The project handles complex builds, code validation, and deployment across application servers.

Tools Covered

2 Automated Azure Web App Deployment with Containers

Automate infrastructure provisioning and microservices deployment on Azure Cloud using Azure Web App and Pipeline. The project includes containerization and CI/CD automation.

Tools Covered

3 Multi-Cloud Deployment for a Web Application

Implement a DevOps pipeline to migrate monolithic applications to microservices using AWS and Azure, with automated deployments using Jenkins and Ansible playbooks.

Tools Covered

Electives

IITK - Academic Masterclass

- Attend online interactive cloud computing training classes conducted by professors from E & ICT Academy, IIT Kanpur.
- Gain insights about advancements in cloud computing and understand why it has become essential for any organization to understand, implement, and invest in cloud computing and DevOps skills to scale up.

Generative AI Masterclass

- Attend live Gen AI masterclasses & learn how you can leverage it to streamline workflows and enhance efficiency
- These cutting-edge masterclasses are conducted by industry experts, where you delve deep into AI-powered creativity, understanding various concepts & topics related to generative AI.

Gen AI on Cloud

- Cloud and DevOps Evolution
- Emerging Innovations in the Industry
- Multi-Cloud and Hybrid Cloud
- Serverless Computing
- Edge Computing
- Sustainable Cloud
- AI-as-a-Service
- Quantum Computing
- FinOps for Cloud
- Platform Engineering
- GitOps and Infrastructure as Code (IaC)
- AI and ML Integration
- IoT (Internet of Things)
- AIOps
- Low-Code Applications
- Cost Efficiency

Designing Microsoft Azure Infrastructure Solutions AZ:305

- Governance and Resource Management
- Authentication and Authorization (Azure AD)
- Logging and Monitoring (Azure Workbooks, Insights, Monitor)
- High Availability (Traffic Manager, Geo-Replication)
- Backup and Recovery (Azure Backup, Site Recovery, and Data Archiving)
- Relational and Non-Relational Data (Azure Storage Account, Blob, Cosmos DB)
- Data Integration (Azure Data Factory, Data Lake)
- Automating Compute and Provisioning
- Application Architecture (Microservices, Serverless, API Integration)
- Network (Azure Virtual Network, DNS, Firewall, Network Watcher, Load Balancer, Application Gateway)
- Migrations (Azure Migrate, Azure App Service, Database Migration Service)
- Cost Optimization

DevSecOps

- Introduction
- Threat Modeling Fundamentals
- Understanding Threat Modelling Techniques
- Securing DevSecOps Pipeline
- Security Principles
- Security in AWS
- Security in AWS CodePipeline
- Amazon Elastic Kubernetes Service (Amazon EKS)
- AWS Security Hub
- Security Best Practices in IAM

Google Cloud Platform Architect Training

- IAM
- Networking
- Cloud Storage

Python Training

- Basics of Python
- Data Operations
- Conditional Statements
- Shell Scripting
- Django

Microsoft Azure DevOps Engineer Expert AZ-400

- SRE Strategy
- Instrumentation Strategy
- Develop Security

Data Migration and Resilience

- Cloud Data Migration
- Best Practices for Data Migration
- Resilience and High Availability in the Cloud
- Automation and DevOps in Data Migration
- Case Studies

Latest Trends in Cloud and DevOps

- Cloud and DevOps Evolution
- Emerging Innovations
- Multi-Cloud and Hybrid Cloud
- Serverless Computing
- Edge Computing
- Platform Engineering
- GitOps and Infrastructure as Code (IaC)
- Sustainable Cloud
- AI-as-a-Service, AIOps
- Quantum Computing
- Low-Code Applications
- FinOps
- IoT
- DevSecOps

Program Outcomes

University Excellence

- Earn a blockchain-verified program completion certificate from E&ICT Academy, IIT Kanpur.
- Attend live online masterclasses delivered by IIT Kanpur faculty.

Curriculum Prowess

- Master the necessary skills for architecting on AWS, helping you prepare for the AWS Solutions Architect Certification - Associate
- Learn the fundamentals of DevOps covering containerization, orchestration, configuration management, and monitoring in DevOps
- Learn the principles of DevOps applications on AWS
- Gain expertise in Azure Cloud Administration, Azure Cloud architecture and Azure DevOps to help you become an expert in Azure Cloud and DevOps
- Get an understanding of Google Cloud Architecture
- Gain expertise in data migration and resilience
- Learn about the impact of GenAI on AWS, Azure and Google Cloud, covering areas on Explainable AI, Responsible AI, Large Language Models (LLMs) & more
- Learn about the latest topics in the cloud and devops domain like Serverless Computing, Edge Computing, DevSecOps, Infrastructure as Code, FinOps, GitOps, AS-as-a-service, Platform Engineering etc

Industry Collaboration

- Access official self-learning content from AWS
- Earn official course completion certificates from Microsoft hosted on the Microsoft Learn portal.

Simplilearn Job Assist Plus

- Get access to a group mentoring & networking session from industry experts
- Participate and test your knowledge with technical & aptitude assessments
- Get access to interview preparation tips via live classes to help you sharpen your soft skills
- Receive AI-powered resume optimization for ATS compatibility and LinkedIn profile enhancement to capture the attention of hiring managers
- Practice and refine your responses with AI-powered 1:1 simulated interviews
- Access custom job opportunities from our pool of 400+ hiring partners

Certificate

Program certificate directly issued by E&ICT Academy, IIT Kanpur within 90 days of your cohort end date.

You will also receive certificates from Simplilearn for each of the courses in the learning path. These certificates will testify to your skills as an expert in Cloud.

MS Azure Certificate

Partnership With Microsoft:

Get an official course completion badge/certificate hosted on the Microsoft Learn portal.

Program Advisor

Suvendu Naskar

Faculty Advisor, IIT Kanpur

Assistant Professor at IIT Kanpur with over a decade of management experience. Suvendu was a member of the IT Committee of IIM Kozhikode (2005 - 2007) and a visiting professor at IIFT Kolkata (Dec 2021- Feb 2022).

He has published notable papers on emerging technologies and is a relationship management expert responsible for strategic decision-making and implementation.

Career Outlook in the Cloud Industry

Due to the high demand for cloud computing professionals, salaries in this field often reflect the market reality. Factors such as the company's size, geographical location, and industry can significantly influence compensation levels. Taking these variables into consideration, we have compiled an estimate of what you can expect to earn in the following roles:

Solutions Architect

Job Role - A Solutions Architect designs and implements cloud computing solutions, including designing the cloud infrastructure, cloud application architecture and cloud security architecture.

Average Annual Salary Range
₹7,00,000 - ₹20,00,000

DevOps Engineer

Job Role - A DevOps Engineer is responsible for bridging the gap between development and operations teams, implementing automation, and managing the infrastructure to ensure efficient software delivery and deployment.

Average Annual Salary Range
₹8,00,000 - ₹20,00,000

Cloud System Administrator

Job Role - A Cloud System Administrator manages and maintains cloud infrastructure, ensuring availability, performance, security, and efficient operation.

Average Annual Salary Range
₹6,50,000 - ₹16,00,000

Cloud Security Engineer

Job Role - A Cloud Security Engineer is responsible for implementing and maintaining security measures to protect cloud-based systems and data from unauthorized access, vulnerabilities, and threats.

Average Annual Salary Range
₹8,50,000 - ₹24,20,000

Cloud Developer

Job Role - Cloud Developers build and deploy cloud-based apps using AWS, Azure, or Google Cloud. They ensure scalability, reliability, and cost-effectiveness, collaborating with teams to meet modern business needs.

Average Annual Salary Range
₹6,00,000 - ₹15,00,000

Who Should Enroll in this Program?

This professional certificate program is designed to train professionals who will be responsible for cloud computing in their respective organizations and is recommended for individuals pursuing positions including, but not limited to:

- Cloud Solutions Architect
- Site Reliability Engineer (SRE)
- Build Engineer
- Solutions Architect
- Application Security Analyst
- Cloud Practitioner
- Cloud Engineer
- Cloud Administrator
- Cloud Security Architect/Engineer
- DevOps Engineer
- Cloud Consultant
- Infrastructure Engineer

Eligibility Criteria

For admission into this Professional Certificate Program in Cloud Computing and DevOps, candidates:

- Should have a bachelor's degree with an average of 50% or higher marks
- May have a non-programming background
- Should have at least 1+ years of full-time work experience

Application Process

The application process consists of three simple steps:

Submit an Application

Complete the application, including a brief statement of purpose explaining your interest and qualifications for the program.

Application Review

A panel of admissions counselors will review your application and statement of purpose to determine whether you qualify for acceptance.

Admission

An offer of admission will be made to qualified candidates. You can accept this offer by paying the program fee.

Talk to an Admissions Counselor

Our team of dedicated admissions counselors is prepared to address your questions or concerns about the Professional Certificate Program in Cloud Computing and DevOps.

Our team is available to:

- Answer your questions about the application process.
- Discuss your financing options.
- Provide insight into the curriculum, program outcomes, and more.

Inquire Now

Contact Us | 1-800-212-7688

About Electronics & ICT Academy, IIT Kanpur

Established in 1959, IIT Kanpur is among the most prestigious institutes in India. Over the past several decades, it has consistently ranked among the top five engineering institutes in India, and many of the institute's alumni are leaders in academia and industry around the globe. IIT Kanpur offers courses in sciences, engineering, humanities, and management.

Electronics & ICT Academy (E&ICT Academy) at IIT Kanpur was established in 2016 in partnership with the Ministry of Electronics and Information Technology (MeitY), Government of India. It is mandated to provide industry-focused and industry-driven hands-on courses in Electronics & ICT. By providing a practical approach to Electronics & ICT domains, it bridges the gap between educational institutions' academic approach and the industry's demand for a practically oriented approach.

About Simplilearn

Founded in 2010 and based in Plano, Texas and Bangalore, India, Simplilearn, a Blackstone portfolio company, is the world's leading digital skills provider, enabling learners across the globe. Simplilearn offers access to world-class work-ready training to individuals and businesses worldwide. Simplilearn offers 1,500+ live online classes each month across 150+ countries, impacting over 8 million learners globally. The programs are designed and delivered with world-renowned universities, top corporations, and leading industry bodies via live online classes featuring top industry practitioners, sought-after trainers, and global leaders. From college students and early career professionals to managers, executives, small businesses, and big corporations, Simplilearn's role-based, skill-focused, industry-recognized, and globally relevant training programs are ideal upskilling solutions for diverse career or business goals.

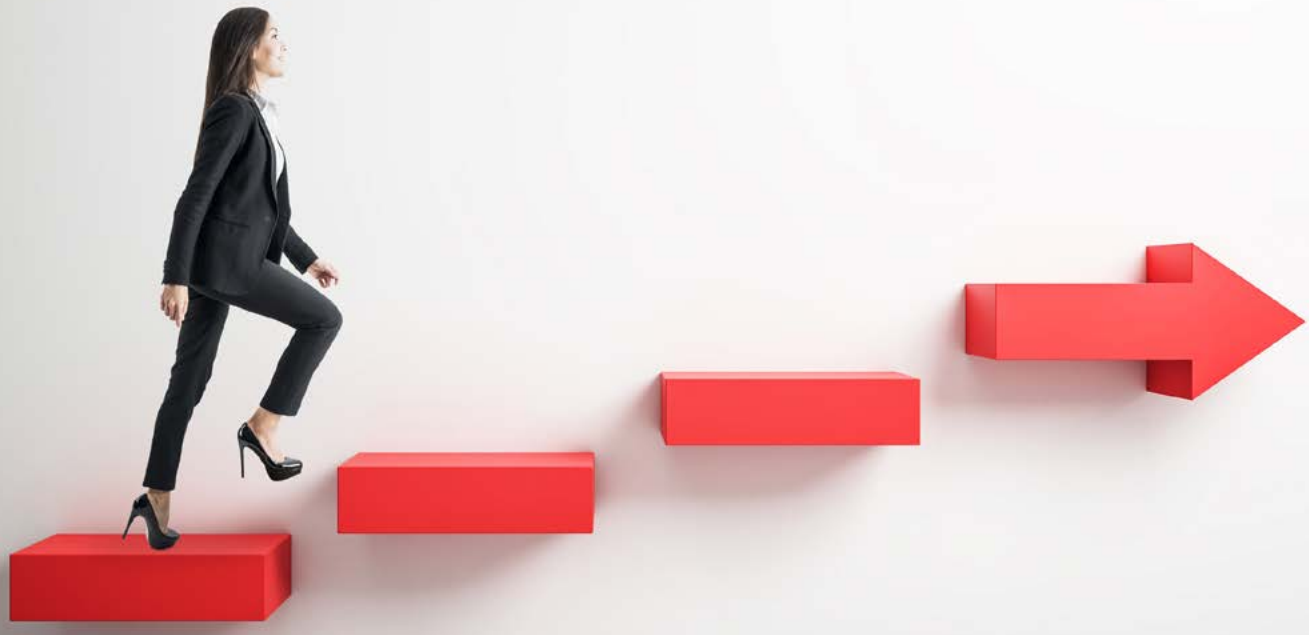
Who Can Apply for the Course?

1 Professionals currently working in the Cloud Computing and DevOps domain who seek to enhance their skills

- Professionals looking to grow their careers as cloud architects
- Platform engineers/Backend developers/Web developers who want to understand cloud architecture and implement DevOps principles and become Cloud DevOps engineers/Site Reliability engineers
- Network engineers/Cloud developers who want to transition to site reliability engineer roles
- Cloud infra analysts who want to become Cloud DevOps architects

2 Professionals from non-Cloud Computing and DevOps domains who aspire to transition into this industry

- DevOps engineers who want to transition to Cloud DevOps engineers
- Tech support engineers who want to transition to Cloud architects
- Business process associate who wish to become Cloud administrators/ Cloud architects



Recommended Career Paths

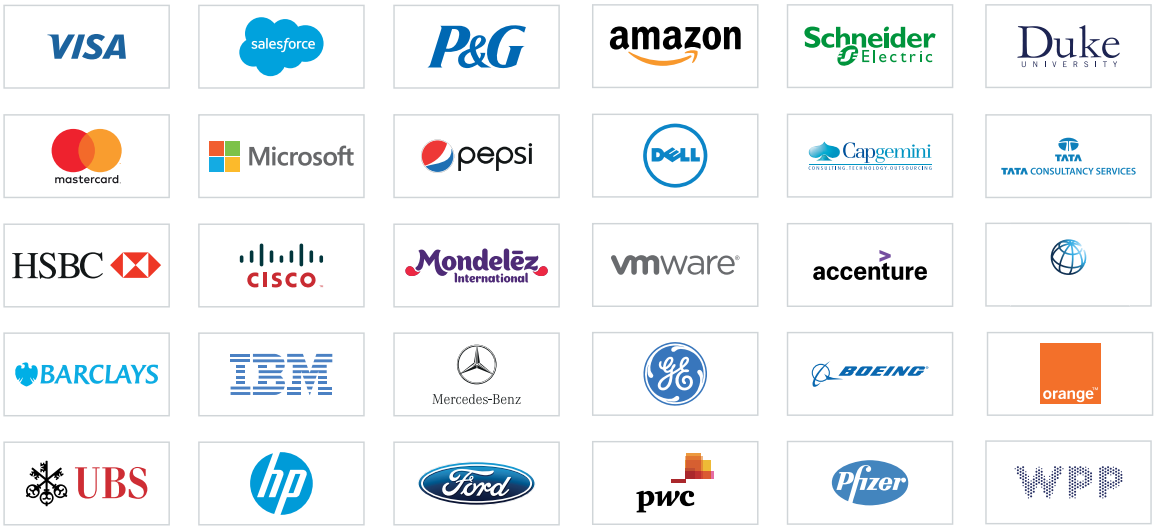
DevOps engineer	Cloud DevOps engineer
Tech support engineer	Cloud architects
Platform engineer (Telecom)	Site reliability engineer
Fresher	Cloud architect
Web developer	Site reliability engineer
Backend developer	Site reliability engineer
Cloud infra analyst	Cloud DevOps architect/ cloud administrator
Cloud developer	Site reliability engineer

Skills Covered

- Application Migration
- Cloud Workloads
- Database Management
- MultiCloud and Hybrid Cloud Deployment
- Disaster Recovery
- Identity Access Management
- Continuous Integration
- Continuous Delivery
- Version Control Systems
- Infrastructure as Code
- Autoscaling
- Web Services and APIs
- Containerization
- Orchestration
- Monitoring
- Infrastructure Provisioning
- Microservices
- Configuration Management
- Storage Services
- Performance Testing
- Cloud Provider Selection
- DevSecOps
- Azure AD
- Azure Workbooks
- GeoReplication
- Azure Backup
- Site Recovery
- Data Archiving
- Cosmos DB
- Load Balancer
- Application Gateway
- Azure Migrate
- Responsible AI
- Explainable AI
- Ethical Considerations in Gen AI
- Gen AI on Azure AWS and Google
- Azure OpenAI
- Edge Computing
- Platform Engineering
- GitOps
- AI-as-a-Service
- AIOps
- LowCode Applications
- FinOps
- IoT

Tools Covered

Corporate Training



Features of Corporate Training:

- Tailored learning solutions
- Flexible pricing options
- Enterprise-grade learning management system (LMS)
- Enterprise dashboards for individuals and teams
- 24X7 learner assistance and support

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