

Amazon Cloud Engineer Career Scope & Syllabus



About **Cloud Engineer Career**

Welcome to Leadtecho's Cloud Engineer Career transition program. The demand for cloud engineers in Canada has been experiencing significant growth, driven by the widespread adoption of cloud technologies across various industries. As businesses increasingly migrate to cloud-based solutions, the need for professionals skilled in cloud engineering continues to rise. We at Leadtecho.com provide you best practical lab experience to learn the complete architecture of AWS Cloud space.



Course overview

Module 1: Fundamentals

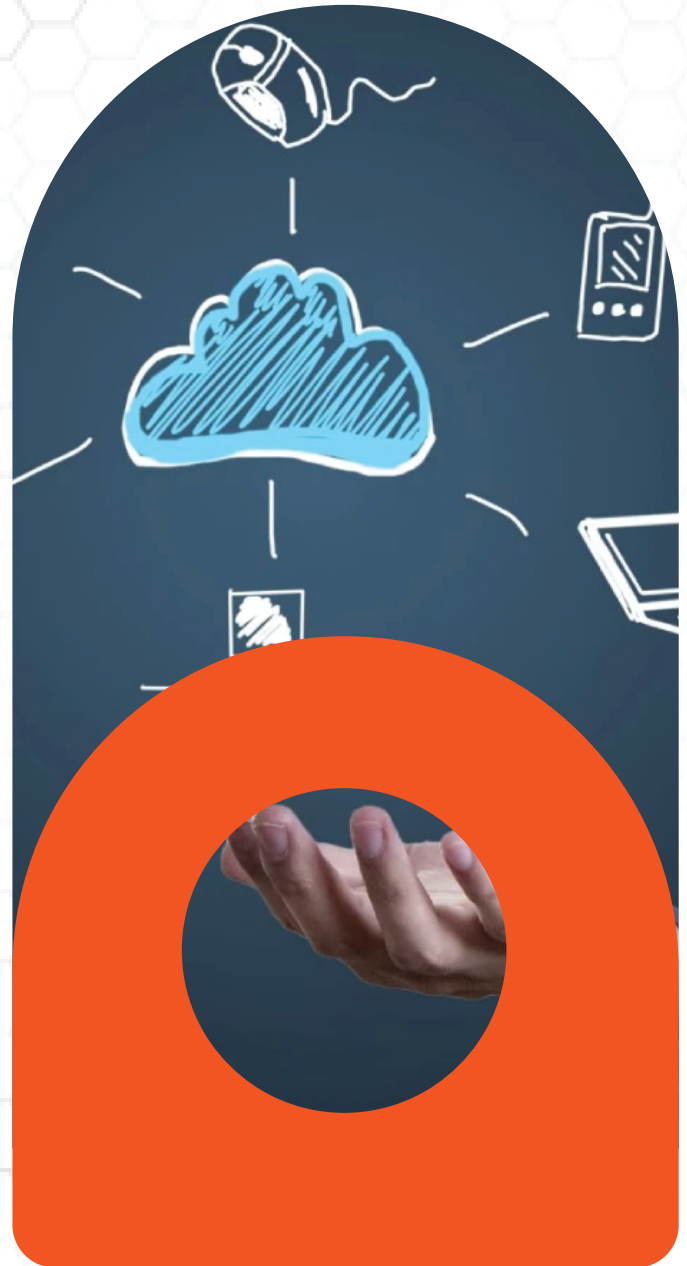
- Business request
- Amazon Web Services (AWS) services
- AWS infrastructure
- AWS Well-Architected Framework
- Present solutions
- Knowledge check

Module 2: Account Security

- Business requests
- Principals and identities
- Security policies
- Managing multiple accounts
- Module review
- Knowledge check

Module 3: Networking 1

- Business requests
- IP addressing
- Virtual Private Cloud (VPC) fundamentals
- VPC traffic security
- Present solutions
- Knowledge check



Module 4: Compute

- Business request
- Compute services
- Amazon Elastic Compute Cloud (Amazon EC2) instances
- EC2 instance storage
- Amazon EC2 pricing options
- AWS Lambda
- Present solutions
- Knowledge check

Module 5: Storage

- Business requests
- Storage services
- Amazon Simple Storage Service (Amazon S3)
- Shared file systems
- Data migration tools
- Present solutions
- Knowledge check

Module 6: Database Services

- Database services
- Amazon Relational Database Service (Amazon RDS)
- Amazon DynamoDB
- Database caching
- Database migration tools
- Present solutions
- Knowledge check

Module 7: Monitoring and Scaling

- Business requests
- Monitoring
- Alarms and events
- Load balancing
- Auto scaling
- Present solutions
- Knowledge check

Module 8: Automation

- Business requests
- AWS CloudFormation
- Infrastructure management
- Present solutions
- Knowledge check

Module 9: Containers

- Business requests
- Microservices
- Containers
- Container services
- Present solutions
- Knowledge check

Module 10: Networking 2

- Business requests
- VPC endpoints
- VPC peering
- Hybrid networking
- AWS Transit Gateway
- Present solutions
- Knowledge check



Module 11: Serverless

- Business request
- What is serverless?
- Amazon API Gateway
- Amazon Simple Queue Service (Amazon SQS)
- Amazon Simple Notification Service (Amazon SNS)
- Amazon Kinesis
- AWS Step Functions
- Present solutions
- Knowledge check

Module 12: Edge Services

- Business requests
- Edge fundamentals
- Amazon Route 53
- Amazon CloudFront
- DDoS protection
- AWS Outposts
- Present solutions
- Knowledge check

Module 13: Introduction to Developing on AWS

- Introduction
- Systems development lifecycle
- Steps to get started developing on AWS
- Fundamentals of working with the AWS SDKs



Module 14: Automating Deployment Using CI/CD Pipelines

- Introduction
- Introducing DevOps
- Using AWS code services for CI/CD
- Deploying applications with CloudFormation
- Deploying applications with AWS SAM

Module 15: Backup and Recovery

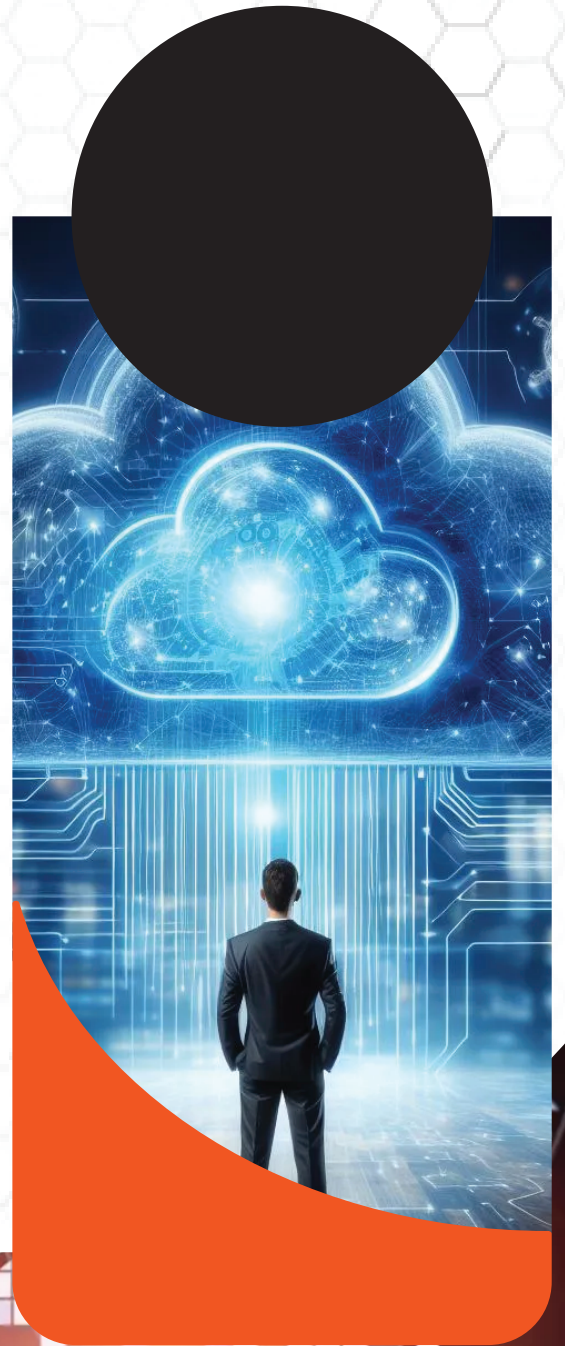
- Business requests
- Disaster planning
- AWS Backup
- Recovery strategies
- Present solutions
- Knowledge check



Learning Path

Certifications

- 1. Foundational:** AWS Certified Cloud Practitioner.
- 2. Associate:**
 - AWS Certified Solutions Architect – Associate.
 - AWS Certified SysOps Administrator – Associate.
- 3. Professional:** AWS Certified Solutions Architect – Professional.
- 4. Specialty:** Security, Networking, or DevOps.



Job Market and Demand

- **Growth in Cloud Adoption:** Canada & United States has seen a substantial increase in cloud adoption among businesses and government sectors. The public cloud services market in Canada & United States is projected to grow by 18% in 2025, indicating robust expansion.
- **Increase in Job Opportunities:** The demand for cloud-related roles in Canada & US has surged, with a 25% increase observed in the past year.
- **Talent Shortage:** Despite the growing demand, there is a notable talent shortage in the cloud computing sector. Approximately 200,000 cloud computing jobs remain unfilled in Canada & US, highlighting the gap between demand and available skilled professionals.



Salary Expectations

Average Salaries

Cloud engineer salaries in Canada & US vary based on experience and location. Entry-level positions typically offer between \$70,000 and \$90,000 CAD per year, while mid-level roles range from \$95,000 to \$120,000 CAD. Senior cloud engineers can earn between \$125,000 and \$150,000 CAD annually

Future Outlook

- The future for cloud engineering professionals in Canada & US appears promising. With the ongoing digital transformation and increased reliance on cloud technologies, the demand for skilled cloud engineers is expected to continue its upward trajectory. Investing in relevant skills and certifications will be crucial for individuals aiming to capitalize on these opportunities.





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