IntelliPaat

futureskills
A NASSCOM initiative

AWS CERTIFICATION TRAINING COURSE FOR SOLUTIONS ARCHITECT

Master AWS skills and take your career to the next level!

2 Million
Learners

1:1 Personlized
Mentorship

55% Average
Salary Hike

AWS Certification Training

This AWS certification training course is the first AWS course certified by NASSCOM. It includes SAA-C03 to help you clear the AWS Solutions Architect certification exam and master domain-specific skills while working on multiple case studies and projects.

Ranked #1 Cloud Program by India Today

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Hottest **Job of 21st Century**

1.8 Million Job Postings
There is a global estimate of 1.8 million job postings for AWS roles by 2022

Skill Development
AWS professionals are equipped with various relevant skills, fetching lucrative job offers

Growing AWS Industry
41% CAGR in the global AWS industry

Future-oriented Career
AWS is a budding field; a head start will prove to be beneficial

Popular Degree
41% of AWS professionals have a Master's degree

High Demand
By 2022, India and US will face a demand-supply gap of 390,000 AWS professionals

Our **Credentials**

2 Million+
Aspiring Active Students

1,000+
Industry-expert Instructors

400+
Hiring Partners

500+
Corporates Upskilled

55%
Average Salary Hike

155+
Countries' Learners

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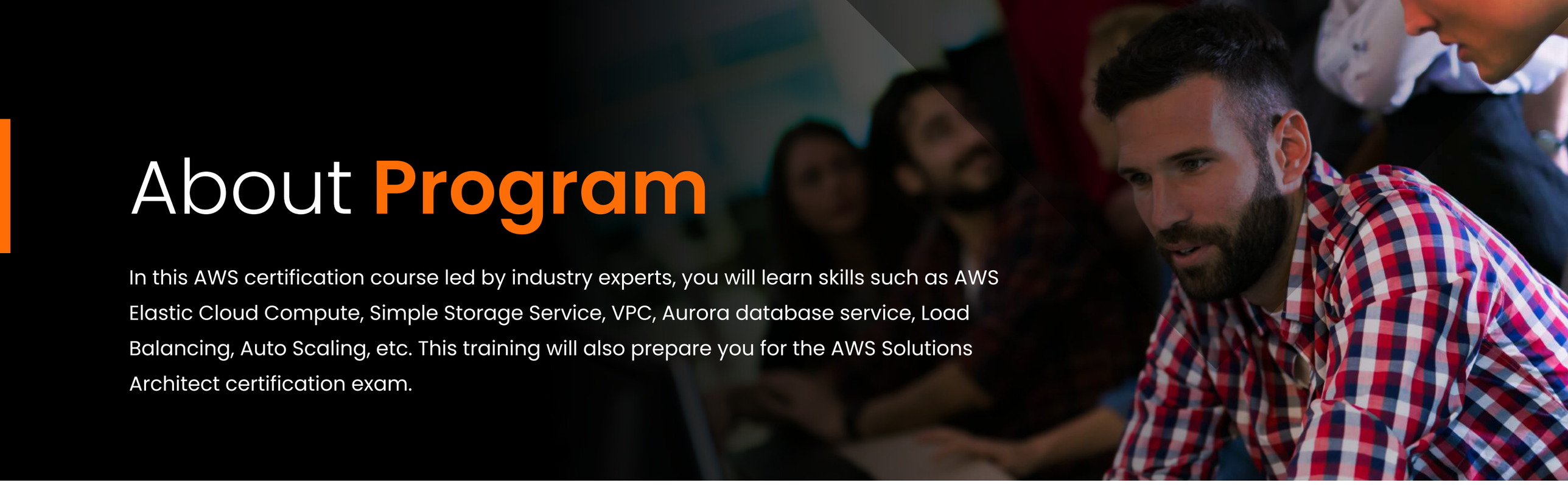
About **Program**



In this AWS certification course led by industry experts, you will learn skills such as AWS Elastic Cloud Compute, Simple Storage Service, VPC, Aurora database service, Load Balancing, Auto Scaling, etc. This training will also prepare you for the AWS Solutions Architect certification exam.

Key **Highlights**

- 36 Hrs Instructor-Led Training
- 32 Hrs Projects and Exercises
- Job Assistance
- Lifetime Free Upgradation
- 40 Hrs Self-paced Videos
- NASSCOM Certification
- Flexible Schedule
- Mentor Support

Program **Pedagogy**

Instructor-led Training
Get trained by top industry experts

1:1 Personalized Learning
Hands-on exercises, project work, quizzes, and capstone projects

Projects and Exercises
Get real-world experience through projects

Self-paced videos
Learn at your own pace with world-class content

Hackathons
Get a sense of how real projects are built

Peer Networking and Group Learning
Improve your professional network and learn from peers

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

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Program **Curriculum**

Module 1

Introduction to Cloud Computing & AWS

- What is Cloud Computing
- Cloud Service & Deployment Models
- How AWS is the leader in the cloud domain
- Various cloud computing products offered by AWS
- Introduction to AWS S3, EC2, VPC, EBS, ELB, AMI
- AWS architecture and the AWS Management Console, virtualization in AWS (Xen hypervisor)
- What is auto-scaling
- AWS EC2 best practices and cost involved.

Module 2

Elastic Compute and Storage Volumes

- Introduction to EC2
- Regions & Availability Zones(AZs)
- Pre-EC2, EC2 instance types
- Comparing Public IP and Elastic IP
- Demonstrating how to launch an AWS EC2 instance
- Introduction to AMIs, Creating and Copying an AMI
- Introduction to EBS
- EBS volume types
- EBS Snapshots
- Introduction to EFS
- Instance tenancy- Reserved and Spot instances
- Pricing and Design Patterns.

Module 3

Load Balancing, Autoscaling and DNS

- Introduction to Elastic Load Balancer
- Types of ELB – Classic, Network and Application
- Load balancer architecture
- Cross-zone load balancing
- Introduction to Auto Scaling, vertical and horizontal scaling, the lifecycle of Auto Scaling
- Components of Auto Scaling, scaling options and policy, instance termination
- Using load balancer with Auto Scaling
- Pre-Route 53 – how DNS works
- Routing policy, Route 53 terminologies, Pricing.

Module 4

Virtual Private Cloud

- What is Amazon VPC
- VPC as a networking layer for EC2,
- IP address and CIDR notations,
- Components of VPC – network interfaces, route tables, internet gateway, NAT,
- Security in VPC – security groups and NACL, types of VPC, what is a subnet, VPC peering with scenarios, VPC endpoints, VPC pricing and design patterns.

Module 5

Storage - Simple Storage Service (S3)

- Introduction to AWS storage
- Pre-S3 – online cloud storage
- API, S3 consistency models
- Storage hierarchy, buckets in S3
- Objects in S3, metadata and storage classes, object versioning, object lifecycle management, cross-region replication, data encryption, connecting using VPC endpoint, S3 pricing.

Module 6

Databases and In-Memory DataStores

- What is a database, types of databases, databases on AWS
- Introduction to Amazon RDS
- Multi-AZ deployments, features of RDS
- Read replicas in RDS, reserved DB instances
- RDS pricing and design patterns
- Introduction to Amazon Aurora, benefits of Aurora, Aurora pricing and design patterns
- Introduction to DynamoDB, components of DynamoDB, DynamoDB pricing and design patterns
- What is Amazon Redshift, advantages of Redshift
- What is ElastiCache, why ElastiCache.

Module 7

Management and Application Services

- Introduction to CloudFormation
- CloudFormation components
- CloudFormation templates
- The concept of Infrastructure-as-a-code
- Functions and pseudo parameters
- Introduction to Simple Notification Service, how does SNS work
- Introduction to Simple Email Service, how does SES work
- Introduction to Simple Queue Service, how does SQS work.

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Program **Curriculum**

Module 8

Access Management and Monitoring Services

- Pre-IAM, why access management
- Amazon Resource Name (ARN), IAM features
- Multi-factor authentication (MFA) in IAM, JSON
- IAM policies, IAM permissions, IAM roles, identity federation, pricing
- Introduction to CloudWatch, metrics and namespaces, CloudWatch architecture, dashboards in CW, CloudWatch alarms, CloudWatch logs, pricing and design patterns
- Introduction to CloudTrail, tracking API usage.

Module 9

Automation and Configuration management

- What is AWS Lambda
- How Lambda is different from EC2
- Benefits and limitations of Lambda
- How does Lambda work
- Use cases of Lambda, Lambda concepts
- Integration S3 with Lambda
- What is Elastic Beanstalk, how does Beanstalk work, Beanstalk concepts, Beanstalk pricing
- What is configuration management
- What is AWS OpsWorks, AWS OpsWorks benefits
- CloudFormation vs OpsWorks, services in OpsWorks, AWS OpsWorks Stacks, OpsWorks pricing.

Module 10

AWS Migration

- What is Cloud migration
- Why migration is important
- Migration process in AWS, the 6 R's migration strategy
- Virtual machine migration, migrating a local vm onto the AWS cloud
- Migrating databases using Database Migration Service (DMS)
- Migrating a local database to RDS
- Migrating an on-premises database server to RDS using DMS, other migration services.

Module 11

Architecting AWS – whitepaper

- Important guidelines for creating a well-architected AWS framework that is resilient and performant
- Designing of fault-tolerant and high-availability architecture
- Resilient storage
- Decoupling mechanism
- Multi-tier architecture solution
- Disaster recovery solution
- Scalable and elastic solutions.

Module 12

DevOps on AWS

- What is DevOps,
- Introduction to AWS DevOps,
- AWS Developer tools – CodeCommit, CodeBuild, CodeDeploy and CodePipeline, integrating GitHub with CodePipeline,
- Creating a DevOps lifecycle using AWS DevOps tools.

Module 13

Amazon FSx and Global Accelerator

- What is FSx
- Types of FSx and FSx for Windows server
- How does FSx for Windows File Server work, FSx for Lustre
- Use cases of FSx
- Automatic failover process
- Supported clients and access methods
- What is a Global Accelerator, How Global Accelerator works, Listeners and Endpoints
- What are AWS Organizations, Features of AWS Organizations, Managing multiple accounts
- What are ENIs, ENAs and EFAs, Working with network interfaces
- Enhanced Networking with ENA, EFA with MPI, Monitoring an EFA

Module 14

AWS Architect Interview Questions

- Guidance for clearing the exam, most probable interview questions and other helpful tips for clearing the exam and interview.

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Program **Curriculum**

Skills to Master

- AWS EC2 & Elastic Beanstalk
- AWS RDS & DynamoDB
- ELB, Auto Scaling
- OpsWorks
- AWS Command Line Interface
- AWS Security Services
- AWS Logging Mechanisms
- Amazon S3
- CloudWatch & IAM
- Global Accelerator
- AWS Global Infrastructure
- AWS Networking
- AWS Databases
- AWS Storage Cost Optimization
- AWS Lambda
- EBS, EFS, & FSx
- CloudFormation
- AWS Well-Architected Framework
- Auto-scaling
- VPC Networking

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Course **Projects**

Projects cover the following industries:

Retail | Social Media | Supply Chain | Entrepreneurship | E-commerce | Banking | Healthcare | Insurance

Deploying a Multi-Tier Website on AWS

Enable fast scaling of a website by using AWS while ensuring low or zero upfront cost. This multi-tier website deploying project also requires the learners to successfully launch an EC2 instance to develop and deploy applications.

Deploying a Website for High Availability and High Resilience

The learners will design an available architecture that automatically scales its servers up and down based on the workload. Balance the load by using ELB. The architecture should be decoupled to connect an RDS database with an EBE.

Sending Notifications to patients using push notifications

The learners will design an architecture to send notifications to patients based on their doctor's feedback. Use SNS for sending messages and integrate EC2 with SNS topic for message storing. Secure EC2 instances by using subnets.

Application to sort objects in an S3 bucket using Beanstalk and Lambda

Build an app that uploads objects from S3 bucket to Elastic Beanstalk. Set up Lambda functions as object creation in S3 bucket and add Lambda code to segregate the uploaded objects into separate buckets as per the extension.

Case Study 1 - Using Different Operations on EC2 and EWS

Replicate EC2 instances to varied regions depending on the availability. The main strategy is to extend the size of EBS volumes without losing the data, ensuring to scale and mount them to different EC2 instances one at a time.

Case Study 2 - Autoscaling Compute Capacity in AWS

The project involves autoscaling and load balancing among multiple EC2 instances within AWS based on varied or defined metrics for autoscaling instances. The project also deals with routing custom domains to AWS resources.

Case Study 3 - Creating custom VPCs in AWS

In the project, the learners will create a custom VPC in AWS with the help of subnets having both private as well as public access. The route tables are also configured to subnets by using internet and NAT gateway.

Case Study 4 - Using AWS S3 for Lifecycle Access Management

The project deals with moving artifacts from on-premise to S3 in the most cost-efficient manner. It also deals with creating Lifecycle rules for events in S3 objects, hosting a static website, and experimenting with Route 53.

Case Study 5 - Highly available Relational Database in AWS

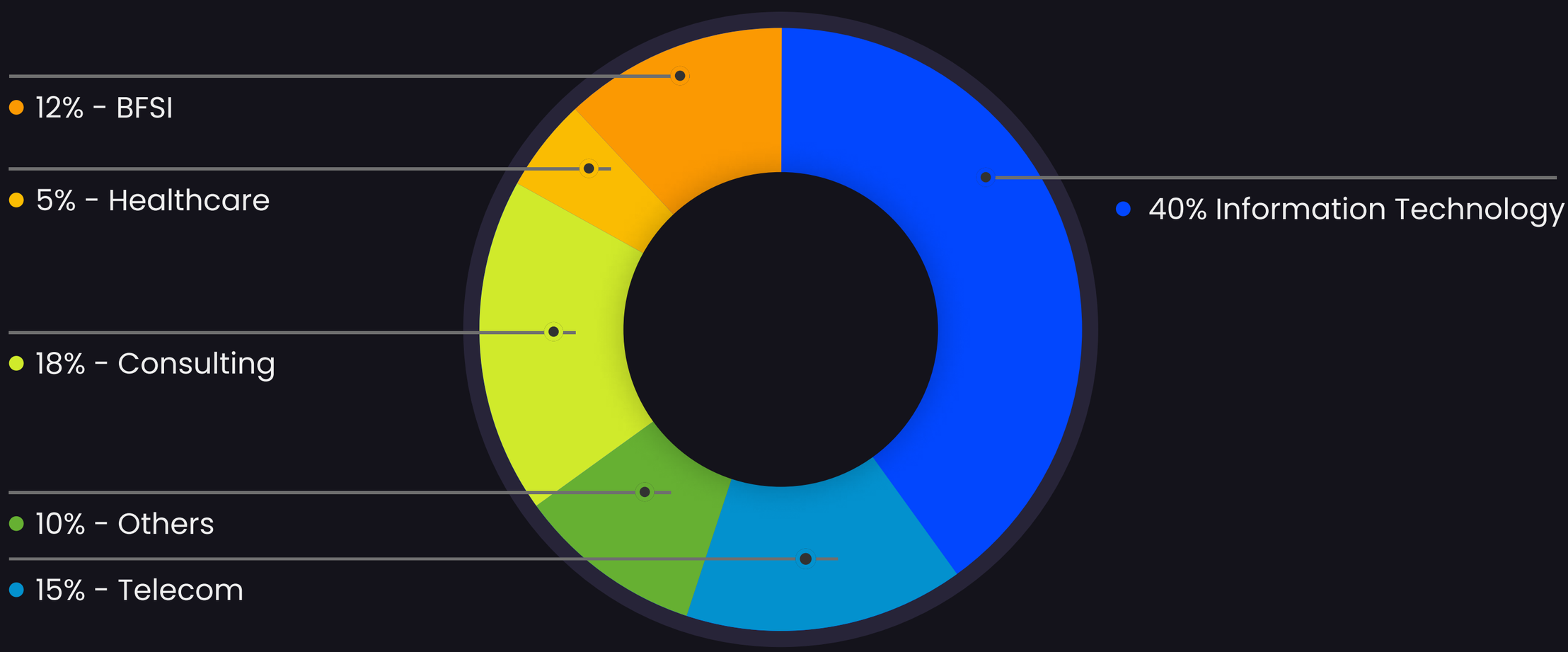
This project is about creating a highly available and scalable AWS database service by using RDS. The process involves creating Database Architecture, collecting data for real-time analysis and relocating latency issues.

Case Study 6 - CloudFormation for Infrastructure-as-Code

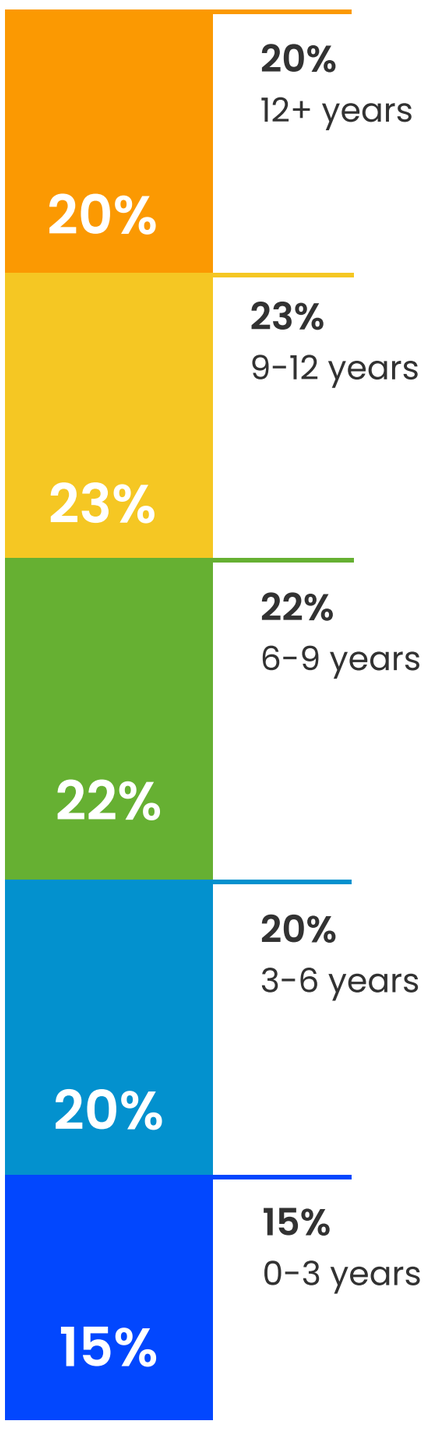
This project involves the learners provisioning and deploying AWS resources by using AWS CloudFormation. In the process, the learners also have to define the rules for deletion, by using IaC, and minimize the deployment time.

Meet the **Batch**

Industries Our Learners Come From



Work **Experience**



Some of their current employers include

amazon · citi · Capgemini · BOSCH · pwc · EY · accenture · Adobe · TATA CONSULTANCY SERVICES · vmware · Abbott · DELL

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Glimpse of our

Successful Transitions

Trustpilot 4.6

sitejabber 4.5

MOUTHSHUT.com 4.38

Career Transitions

Nikhil YN
Cloud Engineer

From **Junior GCP Engineer**

To **Senior Cloud Engineer**

ciber

Nitin Goyal
DevOps Engineer (MCMS-MSCP)

From **System Engineer**

To **DevOps Engineer (MCMS-MSCP)**

IBM

Somika Simlote
Senior Software Engineering Lead

From **Technology Project Lead**

To **Senior Software Engineering Lead**

Herin Wilson
AWS Solution Architect

From **Process Associate**

To **IT Associate**

LOCUZ

Anil Sharma
Cloud Architect Associate

From **Customer Service Associate**

To **Cloud Architect Associate**

LOCUZ

Krishnamohan Shanmugam
Consultant Engineer

From **Software Engineer**

To **Consultant Engineer**

Keyur Patel
Associate Cloud Engineer

From **IT Infrastructure Support Engineer**

To **Associate Cloud Engineer**

CLOUD 9 INFOSYSTEMS

Program **Partners**

About **Intellipaat**

Intellipaat is one of the leading online training providers with more than 1.2 million learners in over 155 countries. We are on a mission to democratize education as we believe that everyone has the right to quality education.

We create courses in collaboration with top universities and MNCs for employability like IIT Madras, University of Essex, University of Liverpool, IIT Roorkee, IIT Guwahati, SPJIMR, IBM, Microsoft, etc.

Our courses are delivered by SMEs & our pedagogy enables quick learning of difficult topics. 24/7 technical support & career services help learners to jump-start their careers.

About **Futureskills**

Futureskills is an initiative by the Government of India for upskilling and reskilling about 1.4 million employees over a period of five years. The online Futureskills platform by NASSCOM for corporate skill development targets the areas of new and emerging technologies, such as artificial intelligence, big data, cloud computing, and cybersecurity, in the IT sector. Futureskills aims to generate career-defining opportunities by making digital skills affordable and available for learners.

1.2 Million Learners & 200+ corporates across 155+ countries upskilling on Intellipaat platform

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