

# Professional Certificate in **AWS Cloud Computing & Devops**

In collaboration with

**IBM.** &

 **Microsoft**

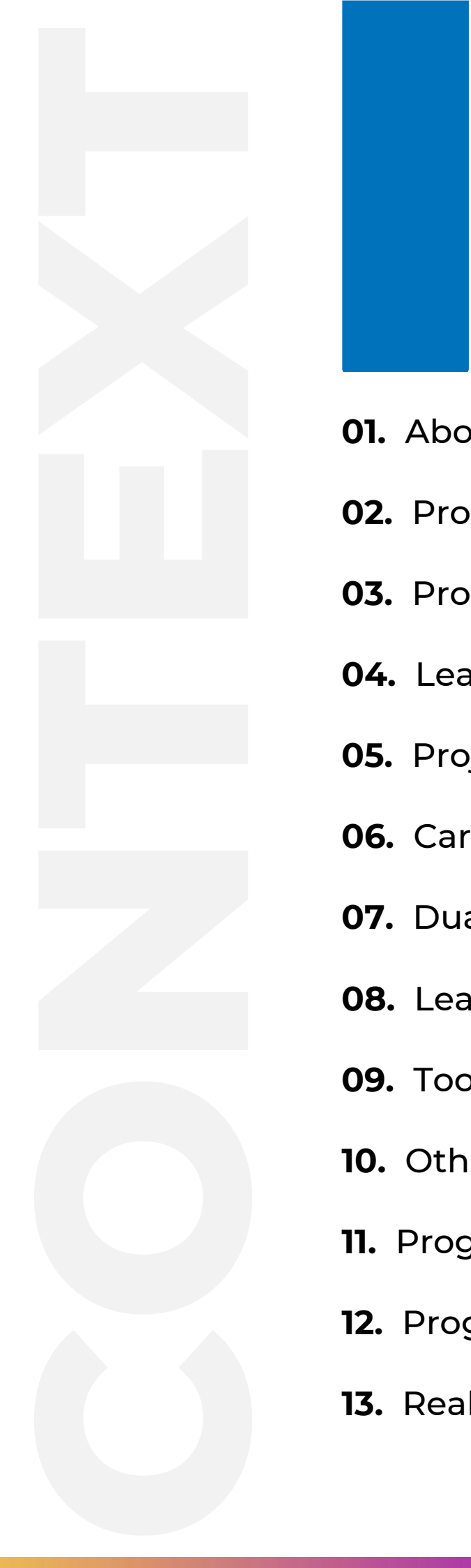


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## Advance Cloud Computing and Devops

About the Program:

Our Cloud Computing & DevOps Program offers an in-depth look at the cloud world, covering everything from networking to AI integration.

You'll get hands-on with AWS, Azure, and GCP, mastering skills in automation, security, and DevOps. Plus, you'll dive into AI's role in cloud computing and learn to build innovative cloud-based SaaS applications.



**35k+**

Trusted  
Learners



**2cr**

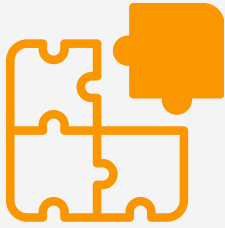
scholarship  
s awarded



**600+**

professionals  
secured jobs

# Program Highlights



## Industry-Relevant & Updated Syllabus

Learn the industry's latest tools, techniques & trends. Gain hands-on experience developing various apps.



## 360 Degree Knowledge Building

Develop practical skills through real-world projects and assignments



## 1:1 Dedicated Mentorship

Personalized learning experience from experienced industry professionals.



## Multiple Career Opportunities

We don't just educate; we guide you towards your career goals with our dedicated placement pool.

## Talk to our counsellor

- Curriculum Insights
- Post-Program Support
- Financing Solutions
- Career Prospects Exploration

[Inquire Now](#)



# Program Details

## COURSE PREREQUISITE

Basic understanding of IT and software with foundational knowledge in networking is required

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## PROGRAM ELIGIBILITY

- ✔ **IT Professionals:** Ideal for IT administrators, system admins, network engineers looking to upgrade their skills.
  - ✔ **Software Developers:** Beneficial for developers aiming to specialize in DevOps practices and cloud solutions.
  - ✔ **Career Changers:** Open to professionals from different backgrounds seeking to transition into the IT and cloud domain.
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## KEY FEATURES

- ✔ Practical exercises, real-world projects, and lab sessions using AWS, Azure, Docker, and Jenkins.
  - ✔ Dedicated Placement Cell | 100% Guaranteed Interview calls
  - ✔ Globally Recognised **Certification from IBM & Microsoft**
- 

## JOB ROLES TO TARGET

Cloud Engineer	Cloud Architect
DevOps Engineer	Automation Engineer
Site Reliability Engineer (SRE)	Infrastructure Engineer
System Administrator	Cloud Security Specialist

Click below

[Check Eligibility](#)

# Learnbay's ProjectLab

Choose Learnbay for your career journey because we're more than just a training provider. Our Project Innovation Lab lets you apply your skills in real-world scenarios. Get **dual certifications** for a competitive edge. Discover how Learnbay can boost your career growth. Don't settle for less – choose Learnbay, your path to success!

## 1 Project Innovation Lab

Work in an industry like environment and gain practical hands-on experience of data scientist with dedicated mentors from industry.

## 2 Dedicated Placement Cell

Experience 100% job assistance with guaranteed interview call from leading MNCs and startups globally.

## 3 Dual Certification

Gain top-notch skills for a successful career through our certification program in collaboration with IBM & Microsoft



# 1 Project Innovation Lab

Learnbay's Project Innovation Lab replicates industry like environment for real time projects. With our **ProjectLab**, you gain real proof of hands-on experience by having your project certified by the industry.

In our ProjectLab, you work like a data scientist with dedicated project mentors from industry and get certified on capstone project.

**450+**

Hiring  
Partners

 PUNE



**35k**  
Trusted  
Learners



1-1 Doubt Session

 HYDERABAD



**Capstone  
Project  
Certificate  
from IBM**



 DELHI



 BENGALURU

**Project  
Innovation Labs  
Across India**

# 2 Career Service



## Get 1 Year of Job and Placement support

Unleash your career potential with 1 year of unlimited job access, interview support, and profile review.

## 1 Mock Interviews with Industry Experts

Master the art of data science & AI and stay ahead of the curve with mockups and industry insights



## Resume Building Session

Craft a powerful resume showcasing your expertise in software development to stand out from the competition

## 4 Interview Calls

Receive 4 interview calls from a diverse pool of interested employers/recruiters.





# 3 Industry Certification



World's leading certifications



## IBM Course Certificate

Complete your training with the globally recognized certificate.



## Microsoft Azure Certificate

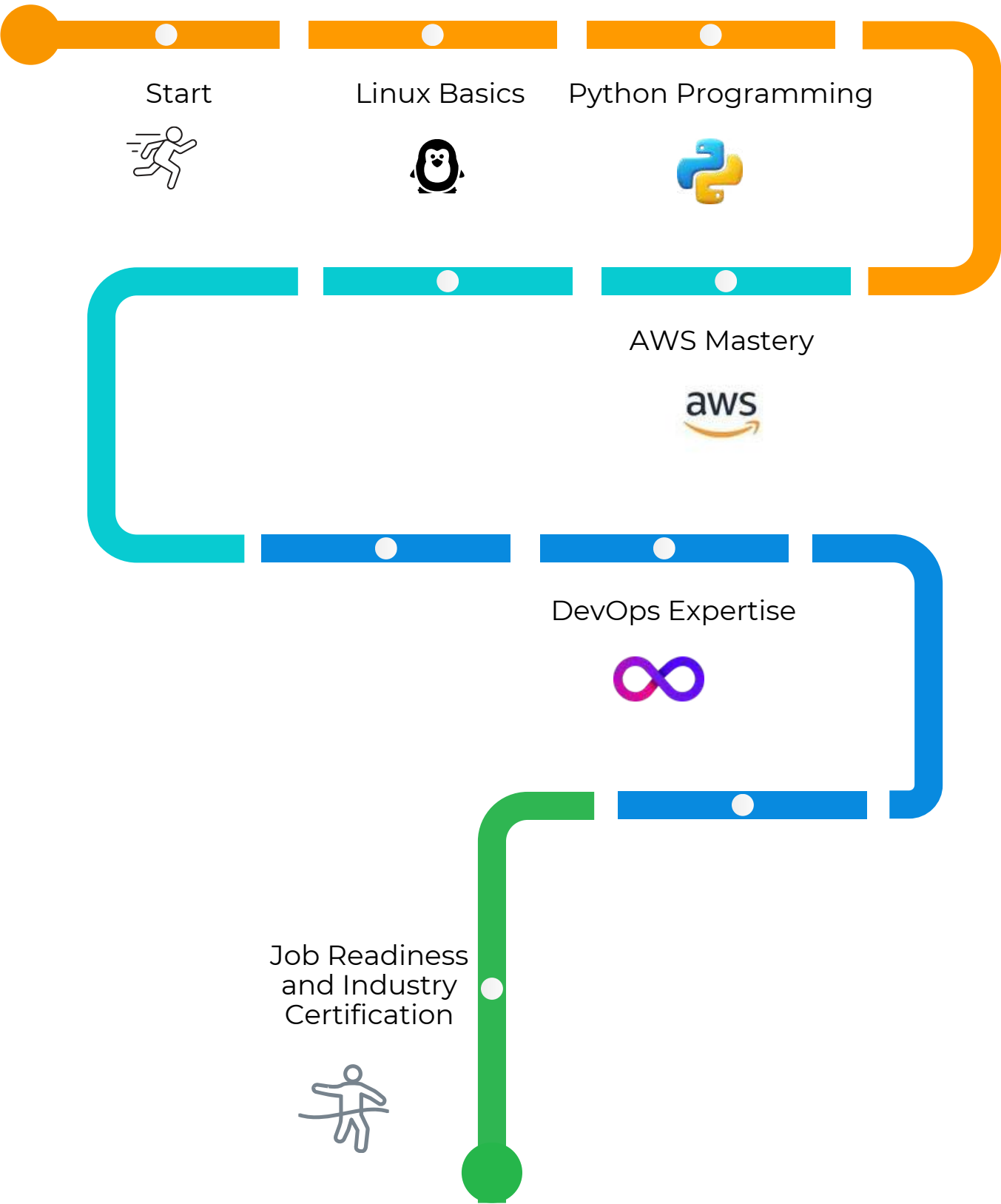
Achieve professional growth & increase earning potential with Microsoft Azure certification



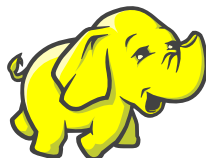
## IBM Capstone Project Certificate

Highlight your skills & boost your project portfolio with capstone project certificate







# Learning Path



# Tools Covered



# Others Vs Learnbay

Benefits		Learnbay	Others
	Guaranteed Interview Calls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Industry capstone project certificate from IBM	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Domain specialized programs for professionals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	100% live interactive sessions with industry experts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	On-demand video call with industry experts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Personalised Resume Review Session	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# Program Fee & Financing



## Scholarship



Scholarships are awarded based on profile review. Eligible candidates can avail upto 25% scholarship on desired courses. Click the button below to apply.

Click below

[Check Scholarship Eligibility](#)

Financing as low as  
**Rs. 3,277/month**

**No Cost EMI**

 **Razorpay**

  
**LIQUILOANS**

 **Propelld**

 **ShopSe**

**Program Fee**

Rs. 50,000/- +18% GST

### Linux Fundamentals and Introduction 10 Hours

#### Linux Basics and System Administration

- Introduction to Linux Operating System
- Command Line Interface (CLI) Essentials
- User and Group Management
- Networking Basics in Linux

#### Practical exercises and assignments for mastering Linux commands

- Command Line Mastery: Exercises focusing on everyday CLI usage
- Script Writing: Basics of Shell Scripting for Automation
- System Administration Tasks: Setting up a Web Server, Creating Cron Jobs

Tools covered



LINUX



### Python Programming Essentials

25 Hours

#### Introduction to Python and Environment Setup

- Basics of Python Programming Language
- Setting Up Python Development Environment
- IDE Setup and Introduction (PyCharm, Jupyter Notebook)

#### Python Programming Foundations

- Data Types, Variables, and Basic Operators
- Control Structures: If-Else Statements, Loops
- Functions: Definition, Arguments, Return Values

Tools covered



jupyter



PyCharm

#### Data Handling and Structures

- Lists, Tuples, Dictionaries, and Sets
- String Manipulation and Regular Expressions
- File Operations: Reading and Writing Files

***Real time project will be covered after Python completion with 2 hours of assessment (coding and objective questions)***





### Python Programming Essentials

#### Advanced Python Concepts

- Object-Oriented Programming (OOP) in Python
- Classes, Objects, Inheritance, and Polymorphism
- Encapsulation and Abstraction
- Exception Handling and Debugging Techniques
- Modules and Packages: Importing and Creating

#### Project Work and Practice

- Hands-on sessions with Python scripting and automation projects
- Real-world problem-solving using Python
- Mini-projects: Developing small-scale applications or scripts

### AWS Cloud Mastery

40 Hours

#### AWS Administration Level

##### Introduction to AWS

- AWS Services Overview
- Setting Up AWS Accounts
- AWS Management Console

##### AWS Storage Services

- S3 (Simple Storage Service)
- EBS (Elastic Block Store)
- Glacier
- Storage Gateway
- Amazon FSx (Fully Managed File Storage)

##### Networking and Content Delivery

- VPC (Virtual Private Cloud)
- CloudFront
- Route 53
- API Gateway
- AWS Direct Connect

##### Monitoring and Management

- CloudWatch
- CloudTrail
- AWS Config
- AWS Trusted Advisor

##### AWS Compute Services

- EC2 (Elastic Compute Cloud)
- AWS Lambda
- Elastic Beanstalk
- Lightsail
- Amazon ECS
- EKS (Elastic Kubernetes Service)

##### AWS Database Services

- RDS (Relational Database Service)
- DynamoDB
- Redshift
- ElastiCache
- Amazon Aurora

##### Automation and Optimization

- AWS CLI (Command Line Interface)
- CloudFormation
- Systems Manager
- AWS Elastic Beanstalk for Deployment Automation

### AWS Cloud Mastery

#### Transitioning to Solution Architect

##### Architecting on AWS

- Designing Systems (Availability, Cost-Efficiency, Fault-Tolerance, Scalability)
- Decoupling Mechanisms and Scalable Design
- Choosing Appropriate AWS Services

##### Advanced Networking

- VPC Design and Implementation
- Advanced Security and Networking Best Practices

##### High Availability and Business Continuity

- Disaster Recovery Strategies
- High Availability Approaches

##### Migration and Innovation

- Migration Strategies to AWS
- Leveraging AWS for Innovation

##### Data Security

- Data Encryption Methods
- Compliance and Governance

##### Cost Optimization

- Cost-Effective Resource Utilization
- Monitoring and Optimization Techniques

##### Designing for New Technologies

- IoT (Internet of Things) Solutions
- Machine Learning Implementations
- Serverless Architectures

### DevOps Expertise

70 Hours

#### Mastering DevOps

##### DevOps Tools and Practices

###### Introduction to DevOps

- Evolution of DevOps and its significance in modern software development.
- Core principles of DevOps practices.

###### Infrastructure Setup

- Fundamentals of server configuration and management.
- Setting up and managing virtual environments for DevOps practices.

##### Version Control with Git

###### Basics of Git

- Introduction to version control systems.
- Fundamental Git commands and workflows.

###### Advanced Git Techniques

- Branching strategies for collaborative development.
- Conflict resolution and best practices for maintaining code integrity.

##### Containerization with Docker

###### Introduction to Containerization

- Concepts of containerization and its advantages.
- Docker installation and setup.

###### Docker in Practice

- Building, running, and managing Docker containers.
- Docker Compose for multi-container setups.



### DevOps Expertise

#### Mastering DevOps

##### Configuration Management

###### Puppet for Configuration Management

- Basics of Puppet: Architecture, setup, and usage.
- Writing and applying Puppet manifests.

###### Ansible for Automated Configuration

- Ansible fundamentals: Playbooks, roles, and inventory.
- Automation of repetitive tasks using Ansible.

##### Continuous Integration and Continuous Delivery (CI/CD)

###### Jenkins for CI/CD

- Setting up Jenkins for automated build and deployment.
- Integrating Jenkins with various development tools.

###### Continuous Delivery and Deployment Strategies

- Automating the software release process.
- Best practices in maintaining a CI/CD pipeline.

##### Container Orchestration with Kubernetes

###### Kubernetes Fundamentals

- The architecture of Kubernetes, pods, and services.
- Deploying applications on Kubernetes clusters.

###### Advanced Kubernetes Management

- Scaling applications with Kubernetes.
- Kubernetes networking, storage, and security.

### DevOps Expertise

#### Mastering DevOps

##### Monitoring and Logging with ELK Stack

###### Elasticsearch, Logstash, and Kibana (ELK)

- Setting up the ELK Stack for logging and monitoring.
- Creating dashboards and visualizations in Kibana.

###### Integrating Monitoring into DevOps Workflows

- Automated monitoring and alerting.
- Best practices for log management and analysis.

##### Infrastructure as Code (IaC) with Terraform

###### Introduction to IaC and Terraform

- Principles of IaC and its benefits.
- Installing and configuring Terraform.

###### Building Infrastructure with Terraform

- Writing Terraform scripts for automated infrastructure deployment.
- Managing and scaling infrastructure with Terraform.



The **IBM** exam will be conducted for all the modules after completion of the course

# Real-time Projects



## Project: 01

### AWS Migration Project for E-Commerce:

This project focuses on migrating e-commerce systems to AWS, optimizing for scalability and reliability, and includes streamlining the checkout process and data storage solutions.



## Project: 02

### Healthcare Data Management with Kubernetes:

Deploying a Kubernetes solution for healthcare data, this project focuses on enhancing data handling efficiency, ensuring security compliance, and improving patient data accessibility.



## Project: 03

### Banking Cloud Security Enhancement:

This project strengthens the banking cloud infrastructure by implementing advanced security protocols and real-time threat detection mechanisms to protect sensitive financial data.



## Project: 04

### Event Management Serverless Solution:

Creating a serverless architecture for event management, this project aims to improve scalability and cost-efficiency, focusing on automated event scheduling and attendee management.





# Real-time Projects

## Project: 05



### SaaS Application Containerization:

This project transitions a suite of SaaS applications to a containerized environment, focusing on enhancing deployment speed and application scalability.



kubernetes



docker

## Project: 06



### Insurance Software DevOps Transformation:

Implementing DevOps practices in insurance software, this project aims to streamline operations, enhance software quality, and accelerate product releases.



Jenkins



git



ANSIBLE

## Project: 7



### Hybrid Cloud Setup for Manufacturing:

Establishing a hybrid cloud setup for a manufacturing environment, the project focuses on integrating on-premise systems with cloud resources for better data management and operational efficiency.

vmware®



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