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DevOps and Cloud Computing

ABSTRACT

Eiminence Institute equip learners with practical skills in deploying, managing, and optimizing cloud-based solutions, preparing them for roles in organizations adopting agile development methodologies and cloud-based services.

FACULTY

MR. ABHISHEK KESARE

- 3+ years of corporate work experience
- Currently working as a Lead MLOps Engineer at Product based company
- Hands-on experience with microservice development using python.
- Part of Unicorn start-up platform engineering team
- Ex Aws/DevOps engineer for US Gov Project
- Experienced Technology Specialist

DELIVERABLES

- **Linux**

- **Git**

- **Docker**

- **Kubernetes**

- **Jenkins**

- **Ansible**

- **Terraform**

- **Networking**

- **AWS Cloud CSA**

- **Python**

- **Monitoring tools**

- **Bonus Learning**

INTRODUCTION

DevOps combines software development and IT operations to streamline software delivery, emphasizing automation and collaboration. Cloud computing provides on-demand access to computing resources over the internet, offering scalability, cost-efficiency, and accessibility. Learning DevOps equips students with skills in continuous integration, deployment, and monitoring.

LINUX

·Different OS flavors

·RHEL 8 understanding

·Basic Linux command

·Partition

·Encryption

·User and group management

·File permission.

·Selinux

·Networking commands

GIT

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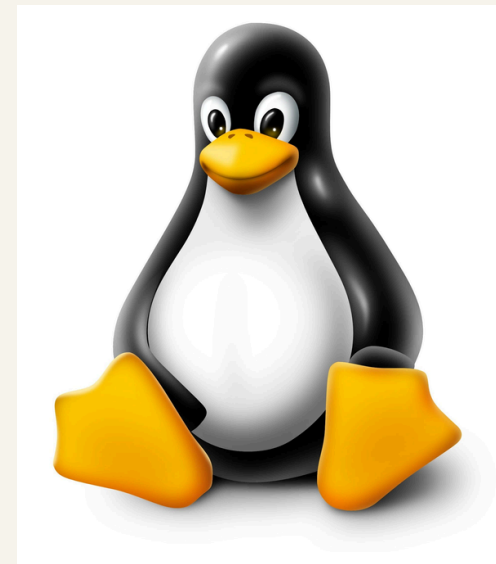
1. What is source code management

2. Understanding Git and GitHub.

3. Basic Git commands and workflows

4. Merging strategies

5. GitOps approach in DevOps

DOCKER

·Containerization

·Docker commands

·Image creation

·Docker networking

·Hosting applications on docker

KUBERNETES

·Orchestration management with respect to containers

·Kubernetes on BareMetal

·Deployment, replica set, replication controller, daemon set, statatefulset

·Services, gateway, configmap, static pods,

·Side car containers

·Service mesh(istio)

JENKINS

·Understanding CI/CD

·Plugins on Jenkins

·Installation of Jenkins on VM

·Creating CI/CD pipeline for

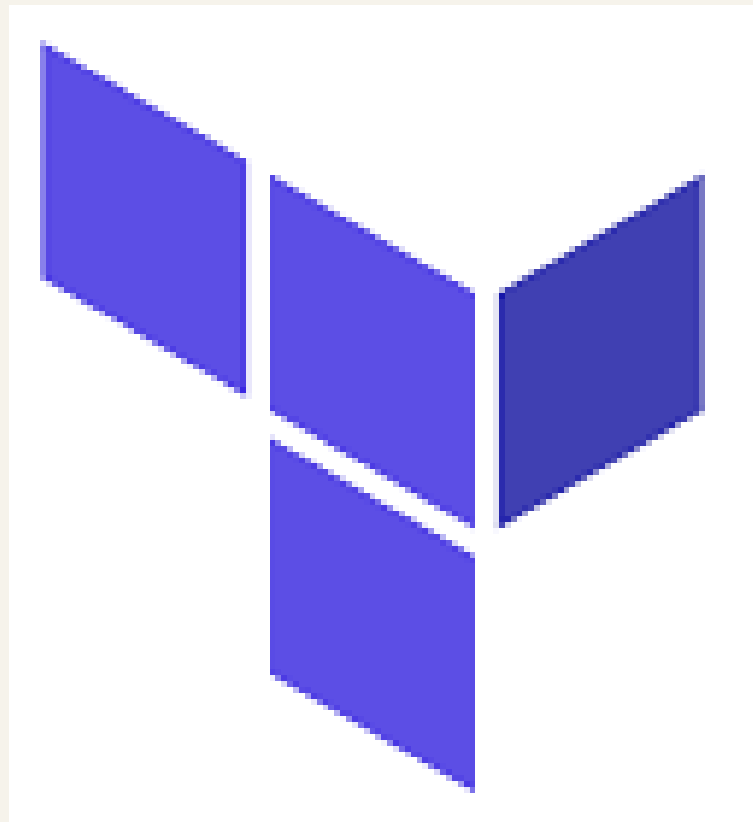deployment of web application

·Backup of Jenkins

Jenkins on Containers

ANSIBLE

·Configuration Management using Ansible

·Adhoc commands

·Ansible Roles

·Playbooks

TERRAFORM

·IAAC

·Terraform variables

·Data blocks resource blocks

·Dynamic resource provisioning

·Loops

·Modules

·Provision infrastructure on AWS cloud.

NETWORKING

Detailed Networking

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AWS CLOUD CSA

·Regions and data center
·EC2
·VPC
·IAM
·Security groups
Lambda

·Gateway
·KMS
·EKS
·Step Functions
·EFS
·Route 53
·Load Balancers

·ECS
·SQS
·SNS
·Cloudfront
·Cloudwatch
·Cloudlogs

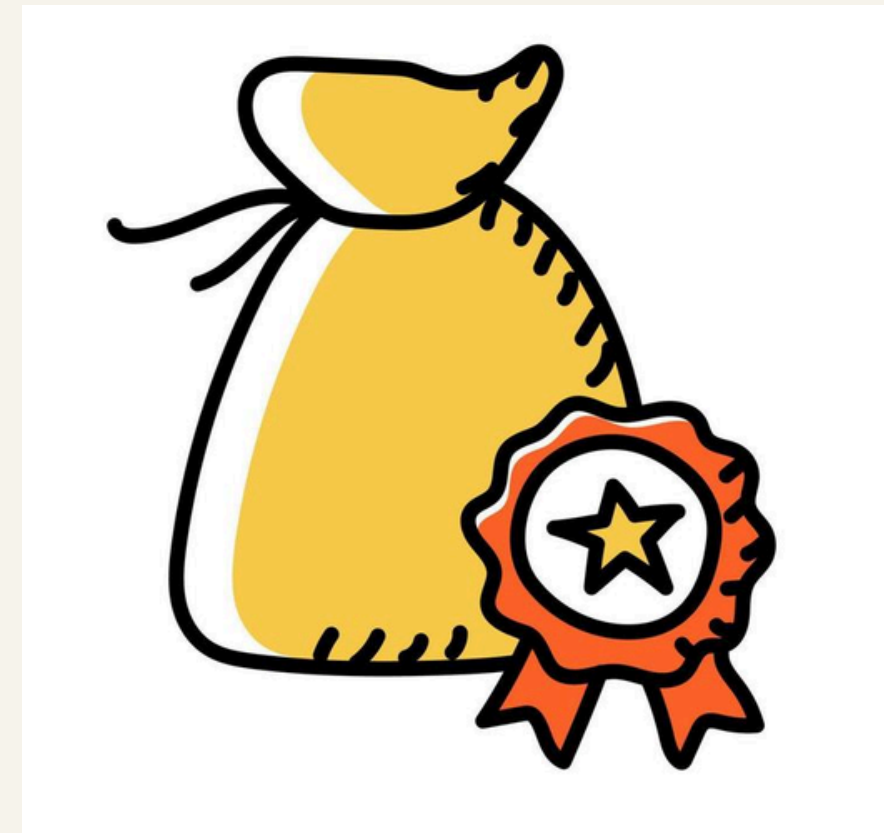# PYTHON

·Python Till Advance

·Flask and FastAPI framework

BONUS

·Project Based learnings

·Resume making

·Placement Assistance.

OUTCOMES OF THE COURSE

·Proficiency in DevOps Practices

·Competence in Cloud Computing

·Hand-on experience of actual project work

·Career Readiness

·Industry-Ready Skills

·Enhanced Collaboration Skills

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CONCLUSION

Our course in DevOps and cloud computing is designed to make candidates market-ready by equipping them with essential skills sought after by today's tech industry. Through hands-on learning of DevOps practices like CI/CD and cloud computing platforms such as AWS, students will gain practical expertise crucial for successful careers in software development and IT operations. By mastering these in-demand technologies, students will be well-prepared to contribute effectively to businesses looking to innovate and scale in the digital age.

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THANK YOU

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