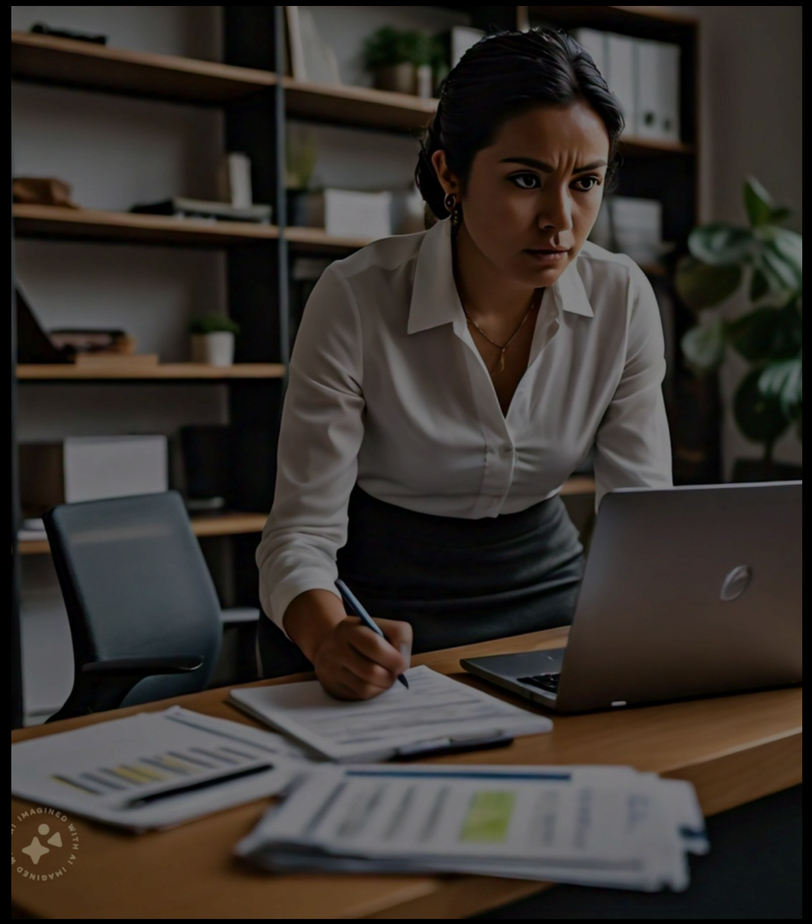
TS
TECH TEACH
EDUCATIONAL SOLUTIO

GITLAB AND ANSIBLE

OUR MISSION :



"Our mission is to empower learners worldwide through innovative technology, personalized learning experiences, and accessible educational resources. We strive to cultivate a community where every individual can achieve their full potential, regardless of their background or circumstances."

OUR VALUES :

"To pioneer the future of education by leveraging cutting-edge technology to make learning more engaging, effective, and inclusive. We envision a world where education transcends boundaries, creating opportunities for lifelong learning and fostering a society enriched by knowledge and creativity."

COURSE CURRICULUM:

Week 1: Introduction and Setup

- Day 1-2: Overview of GitLab
  - Introduction to GitLab, its features, and use cases.
  - Setting up GitLab (cloud and self-hosted options).
- Day 3-4: Overview of Ansible
  - Introduction to Ansible, its architecture, and use cases.
  - Installing and configuring Ansible.
- Day 5: Basic Operations
  - Hands-on: Basic GitLab workflows (creating repositories, branches).
  - Hands-on: Writing and running simple Ansible playbooks.

COURSE CURRICULUM:

Week 2: Advanced GitLab Features

- Day 1-2: GitLab CI/CD
  - Introduction to GitLab CI/CD pipelines.
  - Writing *.gitlab-ci.yml* files.
- Day 3-4: GitLab Runners
  - Setting up and managing GitLab Runners.
  - Using shared and specific runners.
- Day 5: Pipeline Optimization
  - Best practices for optimizing CI/CD pipelines.
  - Hands-on: Creating a complex CI/CD pipeline.

COURSE CURRICULUM:

Week 3: GitLab Advanced Topics

- Day 1-2: GitLab Security Features
  - Implementing security scans in pipelines.
  - Managing access controls and permissions.
- Day 3-4: GitLab Package and Container Registry
  - Using GitLab's package and container registries.
  - Hands-on: Publishing and managing packages and containers.
- Day 5: GitLab Pages and Releases
  - Setting up GitLab Pages for static site hosting.
  - Managing releases and versioning in GitLab.

COURSE CURRICULUM:

Week 4: Advanced Ansible Features

- Day 1-2: Ansible Inventory and Variables
  - Managing inventories and variables.
  - Dynamic inventories and Ansible Vault.
- Day 3-4: Advanced Playbooks and Roles
  - Writing complex playbooks with handlers, loops, and conditionals
  - Structuring Ansible code with roles and collections.
- Day 5: Ansible Galaxy
  - Using and creating Ansible roles from Ansible Galaxy.
  - Hands-on: Publishing a role to Ansible Galaxy.

COURSE CURRICULUM:

Week 5: Ansible for Infrastructure Automation

- Day 1-2: Provisioning with Ansible
  - Using Ansible for cloud provisioning (AWS, Azure, GCP).
  - Hands-on: Creating infrastructure with Ansible.
- Day 3-4: Configuration Management
  - Managing system configurations with Ansible.
  - Hands-on: Configuring applications and services.
- Day 5: Ansible and Docker
  - Managing Docker containers with Ansible.
  - Hands-on: Deploying and managing containerized applications.

COURSE CURRICULUM:

Week 6: Integrating GitLab and Ansible

- Day 1-2: GitLab and Ansible Integration
  - Setting up GitLab CI/CD to trigger Ansible playbooks.
  - Hands-on: Creating an integrated CI/CD pipeline.
- Day 3-4: Infrastructure as Code (IaC)
  - Implementing IaC with GitLab and Ansible.
  - Hands-on: Managing infrastructure lifecycle with GitLab and Ansible.
- Day 5: Continuous Deployment
  - Setting up continuous deployment pipelines.
  - Hands-on: Deploying applications using GitLab and Ansible.

COURSE CURRICULUM:

Week 7: Advanced Automation and Orchestration

- Day 1-2: Ansible Tower/AWX
  - Introduction to Ansible Tower/AWX.
  - Setting up and using Ansible Tower/AWX for automation.
- Day 3-4: Advanced Orchestration
  - Orchestrating complex workflows with GitLab and Ansible.
  - Hands-on: Implementing a complex orchestration scenario.
- Day 5: Monitoring and Logging
  - Integrating monitoring and logging in CI/CD pipelines.
  - Hands-on: Setting up monitoring for automated workflows.

COURSE CURRICULUM:

Week 8: Final Project and Presentations

- Day 1-4: Project Development
  - Students work on a comprehensive final project that integrates multiple aspects of the curriculum.
- Day 5: Project Presentation and Evaluation
  - Students present their projects.
  - Feedback and evaluation.

Our Partners Company's

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THANK YOU

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