A Report on 3-days Workshop
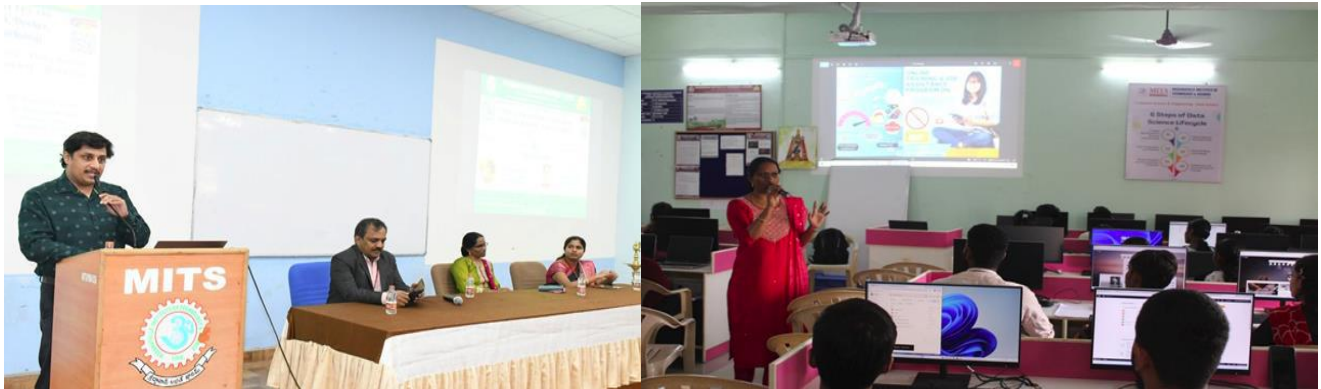## "DevOps Unleashed: Tools, Techniques, and Transformation"
Organized by Department of CSE- Data Science
on 19-11-2024 to 21-11-2024

Report Submitted by: T. Swetha, Assistant Professor, Department of CSE-Data Science.
Resource person Details: K. Abhijith Saralaya, L&D Head, S/W Engineer Acl Pvt. Limited, Bangalore and M. Vijayasanthi, Sr. Associate DevOps, Human Cloud, Bangalore.
Total number of participants: 117
Venue: WB216
Mode of Conduct: Offline
Report Received on 25.11.2024

The programme started at 10:00AM, was organized by the Coordinator Mrs. T. Swetha, Assistant Professor, Department of Computer Science & Engineering (Data Science), Madanapalle Institute of Technology & Science and a welcome address was delivered to the gatherings by Dr. S. Kusuma, HOD/CSE (DS), Madanapalle Institute of Technology & Science. The resource persons **K Abhijith Saralaya, Vijayasanthi M** was introduced by T. Swetha, Assistant Professor, Department of Computer Science & Engineering (Data Science).

Overview

The 3-Day Hands-On Workshop: DevOps Essentials with AWS, Terraform, Docker, Jenkins, and Kubernetes was conducted to provide participants with an in-depth understanding of key DevOps tools and practices. This workshop offered a mix of theoretical knowledge and hands-on exercises, empowering participants to apply DevOps concepts in real-world scenarios.

Agenda Highlights

🖳 Day 1: November 19, 2024

- **Sessions Conducted:**
  - Introduction to DevOps, AWS, and GIT
  - Hands-on with GIT repository setup and AWS configurations

- **Highlights:**
  - Participants gained insights into version control systems and cloud computing fundamentals.
  - Interactive Q&A sessions facilitated active learning.

🖳 Day 2: November 20, 2024

- **Sessions Conducted:**
  - Introduction to Terraform and Docker
  - Hands-on sessions for managing infrastructure with Terraform and containerization with Docker

- **Highlights:**
  - Participants successfully built and managed Docker containers.
  - Real-world examples illustrated the benefits of Infrastructure as Code (IaC).

Day 3: November 21, 2024

- **Sessions Conducted:**
  - Introduction to Jenkins and Kubernetes
  - Hands-on sessions for CI pipeline creation and Kubernetes cluster management
- **Highlights:**
  - Practical implementation of CI pipelines and application deployment in Kubernetes clusters.
  - Participants expressed appreciation for the comprehensive, hands-on approach.

Outcomes Achieved

- **Skill Development:**
  - Mastery of foundational DevOps tools including AWS, Terraform, Docker, Jenkins, and Kubernetes.
  - Practical application of concepts through hands-on sessions.
- **Enhanced Understanding:**
  - Comprehensive grasp of DevOps practices and their integration into project workflows.

Participant Feedback

Participants provided overwhelmingly positive feedback, emphasizing the workshop's structure, the relevance of content, and the balance between theory and practical exercises. Many expressed interest in advanced sessions for deeper exploration of these tools.

Acknowledgments

We sincerely thank HOD CSE-Data Science S.Kusuma for supporting and organizing this workshop. Special thanks to the trainers and speakers for delivering high-quality sessions, and to the participants for their enthusiastic involvement.