Vivekanand Education Society's
Institute of Technology
(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)
Department of Information Technology

Advance DevOps Lab
Experiment 01

Aim: To understand the benefits of Cloud Infrastructure and Setup AWS Cloud9 IDE, Launch AWS Cloud9 IDE, and Perform Collaboration Demonstration.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1 To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements.
Grade:	

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Advance DevOps Lab
Experiment 02

Aim: To Build Your Application using AWS CodeBuild and Deploy on S3 / SEBS using AWS CodePipeline, deploy Sample Application on an EC2 instance using AWS CodeDeploy.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements.
Grade:	

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Advance DevOps Lab

Experiment 03

Aim: To understand the Kubernetes Cluster Architecture, install and Spin Up a Kubernetes Cluster on Linux Machines/Cloud Platforms.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO2: To deploy single and multiple container applications and manage application deployments with rollouts in Kubernetes
Grade:	

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Advance DevOps Lab

Experiment 04

Aim: To install Kubectl and execute Kubectl commands to manage the Kubernetes cluster and deploy Your First Kubernetes Application.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO2: To deploy single and multiple container applications and manage application deployments with rollouts in Kubernetes
Grade:	

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Advance DevOps Lab

Experiment 05

Aim: To understand terraform lifecycle, core concepts/terminologies and install it on a Linux Machine.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO3: To apply best practices for managing infrastructure as code environments and use terraform to define and deploy cloud infrastructure.
Grade:	

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Advance DevOps Lab
Experiment 06

Aim: To Build, change, and destroy AWS / GCP /Microsoft Azure/ DigitalOcean infrastructure Using Terraform.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO3: To apply best practices for managing infrastructure as code environments and use terraform to define and deploy cloud infrastructure.
Grade:	

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Advance DevOps Lab
Experiment 07

Aim: To understand the Static Analysis SAST process and learn to integrate Jenkins SAST to SonarQube/GitLab.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO4: To identify and remediate application vulnerabilities earlier and help integrate security in the development process using SAST Techniques.
Grade:	

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Advance DevOps Lab
Experiment 08

Aim: To identify and remediate application vulnerabilities earlier and help integrate security in the development process using SAST Techniques.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO4: To identify and remediate application vulnerabilities earlier and help integrate security in the development process using SAST Techniques.
Grade:	

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Advance DevOps Lab
Experiment 09

Aim: To Understand Continuous monitoring and Installation and configuration of Nagios Core, Nagios Plugins, and NRPE (Nagios Remote Plugin Executor) on Linux Machine.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO5: To use Continuous Monitoring Tools to resolve any system errors (low memory, unreachable server, etc.) before they have any negative impact on the business productivity.
Grade:	

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Advance DevOps Lab
Experiment 10

Aim: To perform Port, Service monitoring, Windows/Linux server monitoring using Nagios.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO5: To use Continuous Monitoring Tools to resolve any system errors (low memory, unreachable server, etc.) before they have any negative impact on the business productivity.
Grade:	

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Advance DevOps Lab

Experiment 11

Aim: To understand AWS Lambda, its workflow, and various functions and create your first Lambda functions using Python / Java / Nodejs.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud-based DevOps solution deployment options to meet your business requirements. LO6: To engineer a composition of nano services using AWS Lambda and Step Functions with the Serverless Framework.
Grade:	

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Advance DevOps Lab
Experiment 12

Aim: To Build Your Application using AWS CodeBuild and Deploy on S3 / SEBS using AWS CodePipeline, deploy Sample Application on EC2 instance using AWS CodeDeploy.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud based DevOps solution deployment options to meet your business requirements. LO6: To engineer a composition of nano services using AWS Lambda and Step Functions with the Serverless Framework
Grade:	

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Advance DevOps Lab
Assignment 01

Aim:
Part 1: To develop a website and host it on your local machine on a VM
Part 2: To host the website developed as part 1 of Assignment 1 using AWS.

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud based DevOps solution deployment options to meet your business requirements.
Grade:	

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Advance DevOps Lab
Assignment 02

Aim: Create a REST API with the Serverless Framework

Roll No.	37
Name	Mikil Lalwani
Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO6: To engineer a composition of nano services using AWS Lambda and Step Functions with the Serverless Framework
Grade:	