


AIT/NBA/ LAB-INDX/ 2024-25		 <b>ACHARYA INSTITUTE OF TECHNOLOGY</b> Bengaluru – 560 107 Department of Artificial Intelligence and Machine Learning Engg.					
<b>Course Title:</b>		DEVOPS				<b>Course ID:</b>	C315
<b>Course Code:</b>		BCSL657D	<b>Semester:</b>	6	<b>Section:</b>	<b>ACY:</b>	2024-25
<b>Student Name:</b>					<b>Batch:</b>	1	<b>USN:</b>
Sl.	Description of Experiments	Lab Rubrix / Marks					Student Sign
		Attendance	Observations	Record	Viva	Total	
		2	2	4	2	10	
1	Introduction to Maven and Gradle: Overview of Build Automation Tools, Key Differences Between Maven and Gradle, Installation and Setup.						
2	Working with Maven: Creating a Maven Project, Understanding the POM File, Dependency Management and Plugins						
3	Working with Gradle: Setting Up a Gradle Project, Understanding Build Scripts (Groovy and Kotlin DSL), Dependency Management and Task Automation						
4	Practical Exercise: Build and Run a Java Application with Maven, Migrate the Same Application to Gradle						
5	Introduction to Jenkins: What is Jenkins?, Installing Jenkins on Local or Cloud Environment, Configuring Jenkins for First Use.						
6	Continuous Integration with Jenkins: Setting Up a CI Pipeline, Integrating Jenkins with Maven /Gradle, Running Automated Builds and Tests						
7	Configuration Management with Ansible: Basics of Ansible: Inventory, Playbooks, and Modules, Automating Server Configurations with Playbooks, Hands-On: Writing and Running a Basic Playbook						
8	Practical Exercise: Set Up a Jenkins CI Pipeline for a Maven Project, Use Ansible to Deploy Artifacts Generated by Jenkins.						
9	Introduction to Azure DevOps: Overview of Azure DevOps Services, Setting Up an Azure DevOps Account and Project						
10	Creating Build Pipelines: Building a Maven /Gradle Project with Azure Pipelines, Integrating Code Repositories (e.g., GitHub, Azure Repos), Running Unit Tests and Generating Reports						
11	Creating Release Pipelines: Deploying Applications to Azure App Services, Managing Secrets and Configuration with Azure Key Vault, Hands-On: Continuous Deployment with Azure Pipelines						
12	Practical Exercise and Wrap-Up: Build and Deploy a Complete DevOps Pipeline, Discussion on Best Practices and Q&A						
<b>Average Marks obtained (Scale to - )</b>							
Test-1							
Test-2							
<b>Average Laboratory Test Marks ( Scale to - )</b>							
<b>Total of Average Marks obtained (Exp+Test - 50 )</b>							
CIE Marks (IA):		/50					
<b>Course Instructor Name:</b>		MR. MD TAHIR MIRJI			<b>Signature:</b>		