Lesson Plan & Work-done Diary for AY: 2025-26, Even Semester

Course with Code: DEVOPS [BCSL657D]				Faculty:			Semester & Section:	
Batch No.	**Date planned (DD/MM)**	**Lab Component**	**TLP Planned**	**Batch No.**	**Date of Conduction (DD/MM)**	**Topics Covered**	**TLP Executed**	**Remarks if any deviation**
B1		**1. Introduction to Maven and Gradle:** Overview of Build Automation Tools, Key Differences Between Maven and Gradle, Installation and Setup.	PPT + Hands On	**B1**				
B2				**B2**				
B3				**B3**				
B1		**2. Working with Maven:** Creating a Maven Project, Understanding the POM File, Dependency Management and Plugins	PPT + Hands On	**B1**				
B2				**B2**				
B3				**B3**				
B1		**3. Working with Gradle:** Setting Up a Gradle Project, Understanding Build Scripts (Groovy and Kotlin DSL), Dependency Management and Task Automation	PPT + Hands On	**B1**				
B2				**B2**				
B3				**B3**				
B1		**4. Practical Exercise:** Build and Run a Java Application with Maven, Migrate the Same Application to Gradle	PPT + Hands On	**B1**				

B2				B2				
B3				B3				
B1		**5. Introduction to Jenkins:** What is Jenkins?, Installing Jenkins on Local or Cloud Environment, Configuring Jenkins for First Use	PPT + Hands On	B1				
B2				B2				
B3				B3				
B1		**6. Continuous Integration with Jenkins:** Setting Up a CI Pipeline, Integrating Jenkins with Maven/Gradle, Running Automated Builds and Tests	PPT + Hands On	B1				
B2				B2				
B3				B3				
B1		**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	PPT + Hands On	B1				
B2				B2				
B3				B3				
B1		**8. Practical Exercise:** Set Up a Jenkins CI Pipeline for a Maven Project, Use Ansible to Deploy Artifacts Generated by Jenkins	PPT + Hands On	B1				
B2				B2				
B3				B3				

B1		**9. Introduction to Azure DevOps:** Overview of Azure DevOps Services, Setting Up an Azure DevOps Account and Project	PPT + Hands On	B1				
B2				B2				
B3				B3				
B1		**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	PPT + Hands On	B1				
B2				B2				
B3				B3				
B1		**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	PPT + Hands On	B1				
B2				B2				
B3				B3				
B1		**12.Practical Exercise and Wrap- Up:** Build and Deploy a Complete DevOps Pipeline, Discussion on Best Practices and Q&A	PPT + Hands On	B1				
B2				B2				
B3				B3				
IA - B1		**Internal Assessment (100 Marks)**	-	B1				
IA - B2				B2				
IA - B3				B3				

	Activity	Planned	Actual	Remarks
1	Lab Session	12		
2	Assignments/ Quizzes/ Self-study	-		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	1		
5	ICT based Teaching (% of usage in Curriculum)	100%		

Planning	Execution
Faculty Signature:	**Faculty Signature:**
HoD Signature:	**HoD Signature:**