In Today’s scenario, fast moving businesses need continuous improvements and deploying changes with better efficiency and smoothness. They also need complete product lifecycle controls in fast and effective ways.  
Jenkins is one of the best solutions in place. With Jenkins, companies can accelerate the software development/deployment process through automation. Jenkins manages and controls development lifecycle processes of all kinds, including build, document, test, package, stage, deployment, static analysis and more.

1. **Introduction**

 ■ What is CI/CD

■ CI/CD tools available in markets

■ What is Jenkins

■ Why Jenkins  
 ■ How Jenkins does CI/CD

1. **Set up Jenkins**

 ■ Installation of Jenkins  
 ■ Configuration and settings

1. **Jenkins administrative tasks**

 ■ Jenkins’s user management  
 ■ Plugins initialization and installation

■ Understanding different types of plugins

■ Plugins lifecycle management  
 ■ Jenkins Credential management

■ Jenkins security management

■ Jenkins master-slave architecture

1. **Free-style project/Job Creation**

 ■ Creating free-style project/job  
 ■ Setting up jobs configuration

■ Job scheduling types  
 ■ Execution of jobs  
 ■ Console output monitoring  
 ■ Basic troubleshooting of job execution error  
 ■ Action taken when jobs fails/succeed

1. **Multi-branch project/Job Creation**

 ■ Creating multi-branch project/job  
 ■ Setting up jobs configuration

■ Job scheduling  
 ■ Execution of jobs  
 ■ Console output monitoring  
 ■ Basic troubleshooting of job execution error  
 ■ Action taken when jobs fails/succeed

1. **Pipeline project/Job Creation**

 ■ Creating pipeline project/job

* Scripted pipeline
* Declarative pipeline

■ Setting up jobs configuration

■ Job scheduling  
 ■ Execution of jobs  
 ■ Console output monitoring  
 ■ Basic troubleshooting of job execution error  
 ■ Action taken when jobs fails/succeed  
 ■ Understanding and writing Jenkins files

1. **Integration of Jenkins with GIT and other deployable systems**

 ■ Integration of Jenkins with Github/Gitlab  
 ■ Integration of Jenkins with Nexus artifactory

■ Integration of Jenkins with AWS resources

1. **Jenkins Advance coverage**

■ Jenkins master-slave setup

■ Explore Groovy syntax helper to write Jenkinsfile   
 ■ Overview of Jenkins shared libraries

■ Deployment of application on Docker container

■ Jenkins backup and restore

■ Jenkins upgrade