## Jenkins: Fundamentals

## **Course Content:**

- Describe the concept of continuous delivery
- Prepare, configure, and set up a deployment of Jenkins
- Work with Maven and freestyle job types
- Work with the Jenkins user interface and recognize how to monitor jobs
- Identify how to organize jobs as the number of jobs grow
- Describe how the Jenkins ecosystem works and where to find job examples and plugins
- Use version control to get code into Jenkins
- Compare the different ways metrics can be used in Jenkins to measure code quality
- Recognize the different ways to automate Jenkins through the command line interface and other methods
- Work with Jenkins jobs and the background identity service
- Work with Java code and the techniques in promoting it
- Identify how to add parameters into a workflow
- Work with Java and Apache Tomcat to automate Java builds
- Describe how Jenkins can be used to distribute builds to multiple machines
- Identify the different types of Jenkins jobs
- Identify how Jenkins can build jobs based on the occurrence of an event
- Describe how jobs can be scheduled in Jenkins
- Identify how Jenkins can poll for software changes
- Describe how Jenkins implements security
- Identify how Jenkins authenticates applications
- Identify how Jenkins authorizes users
- Use Jenkins as a stand-alone application
- Use Jenkins as a web application
- Describe the process for installing Jenkins as a Windows service
- Identify how Jenkins can be used for non-Java applications
- Describe in detail the Jenkins tool and how Jenkins implements continuous delivery