

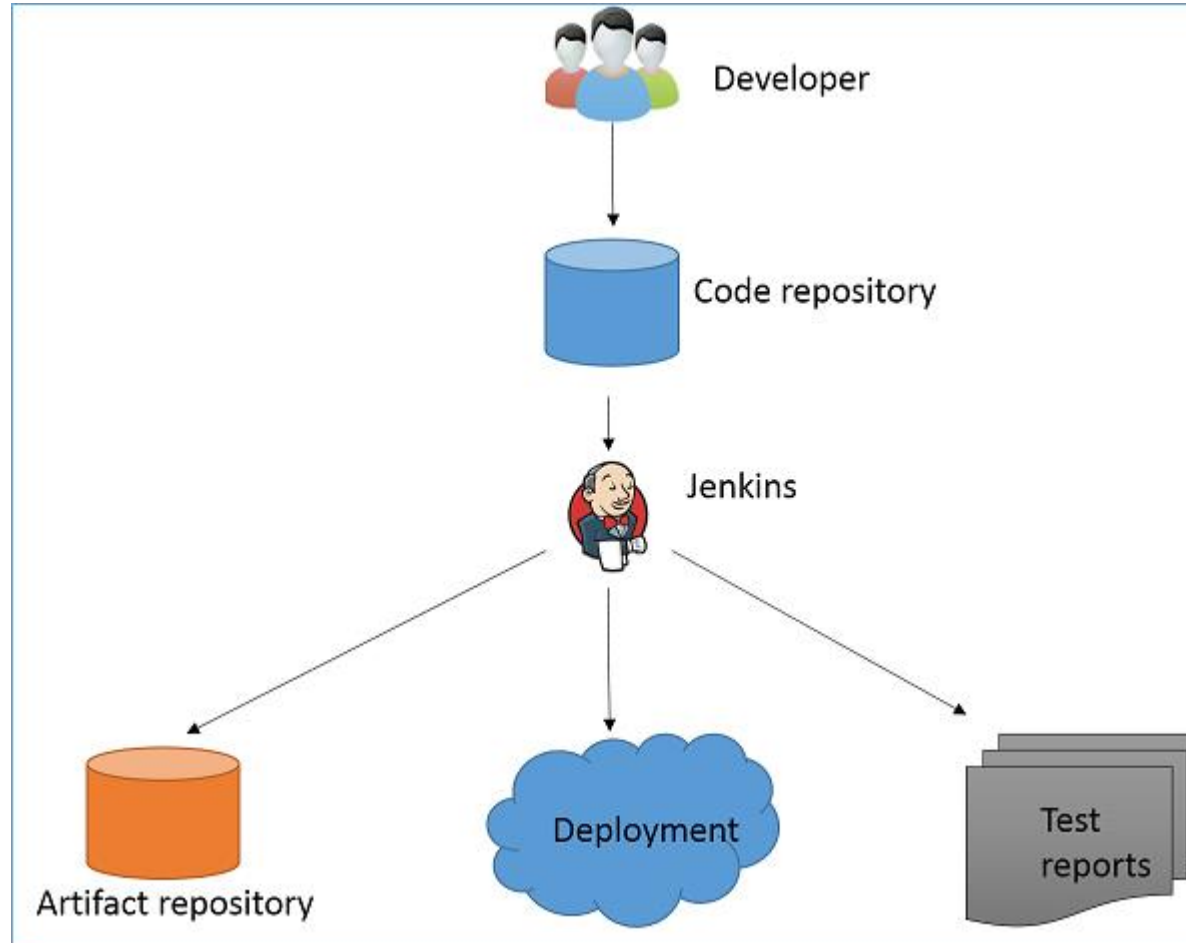
Module 2 – Introduction to Jenkins

Overview of Jenkins

- Open source CI/CD tool written in Java with plugins built for Continuous Integration purpose.
- Used for building and testing software projects continuously making it easier for developers to integrate changes to the project and making it easier for users to obtain a fresh build.
- It is used to automate all tasks related to building , testing and delivering software



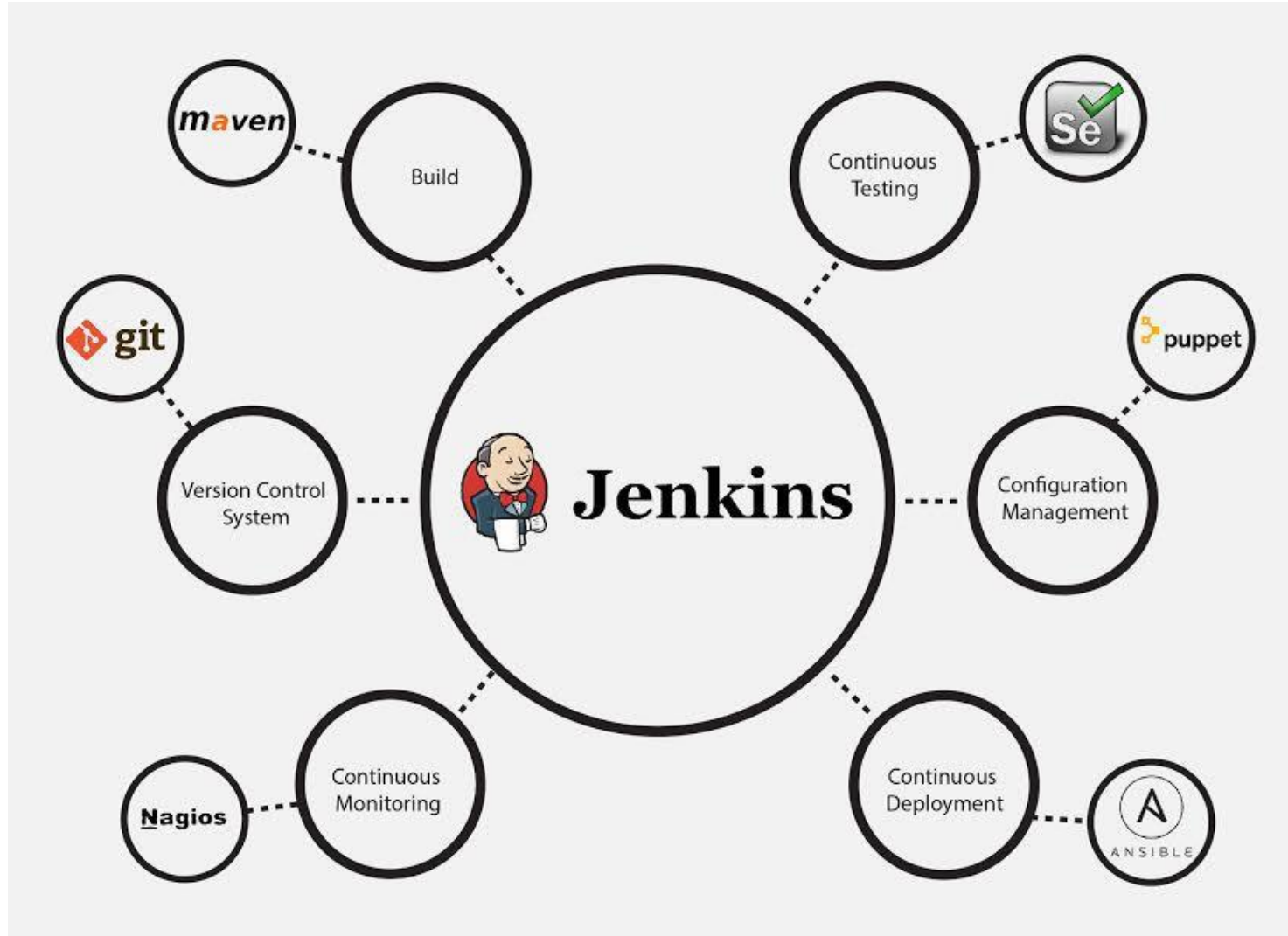
Jenkins Workflow



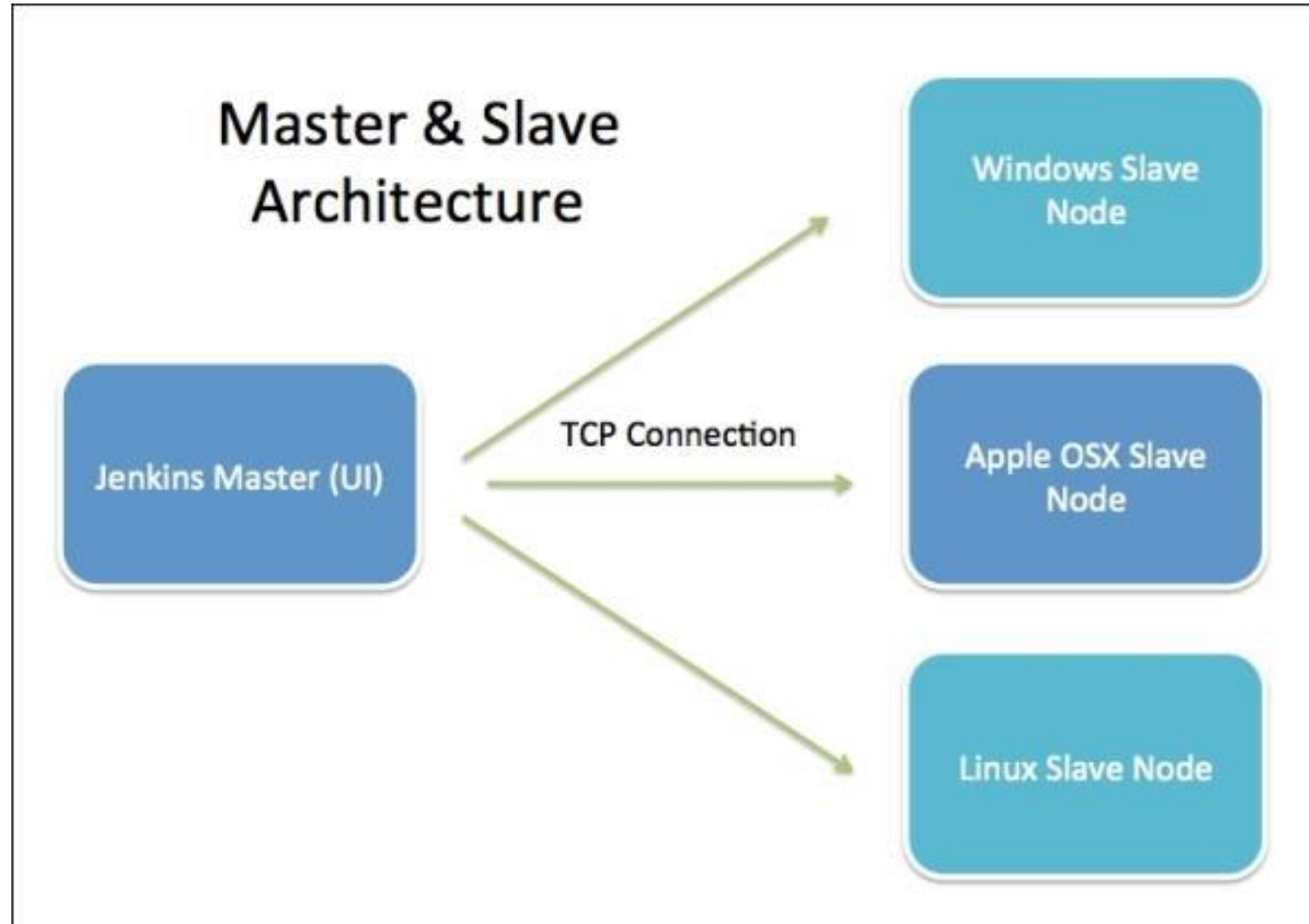
Jenkins Benefits & Adoption

- It is an open source tool with great community support.
- It is easy to install.
- It is free of cost.
- It is built with Java and hence, it is portable to all the major platforms.
- Jenkins is widespread, with more than 147,000 active installations and over 1 million users around the world.
- Jenkins is interconnected with well over 1,000 plugins that allow it to integrate with most of the development, testing and deployment tools.

Jenkins Integration



Jenkins Architecture

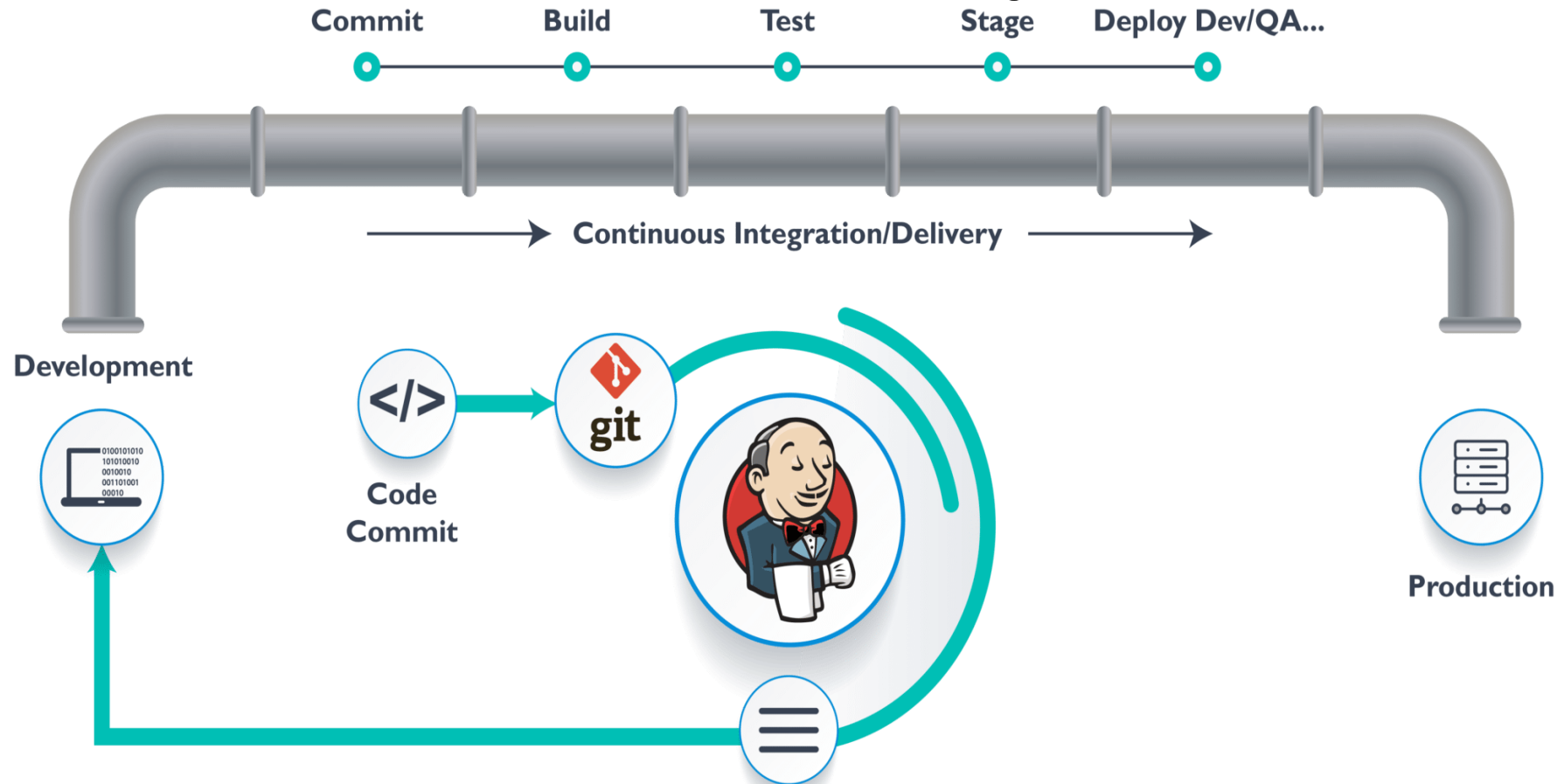


Important Jenkins Terms

- **Job/Project:** Refers to runnable tasks that are controlled / monitored by Jenkins.
- **Node/Slave:** Slaves are computers that are set up to build projects for a master. Jenkins runs a separate program called "**slave agent**" on slaves. When slaves are registered to a master, a master starts distributing loads to slaves. Term **Node** is used to refer to all machine that are part of Jenkins grid, slaves and master.
- **Successful build :** A build is successful when the compilation reported no errors.
- **Unstable build:** A build is unstable if it was built successfully and one or more publishers report it unstable. For example if the JUnit publisher is configured and a test fails then the build will be marked unstable.

Ref: <https://jenkins.io/doc/book/glossary/>

Jenkins Lifecycle



THANKS