



# Jenkins

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*Jenkins: Introduction*

## *JENKINS : Introduction*

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- Jenkins is an Open-Source CI/CD tool written in Java.
- Jenkins is an Automation Tools, used to **Build and Deliver** the Software Product.
- Jenkins is free and is entirely written in Java.
- Jenkins is a widely used application around the world that has around **300k installations** and growing day by day.
- Jenkins was forked from Another Project called **Hudson**, after dispute with Oracle.
- It is a server-based application and requires a web server like **Apache Tomcat**.

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- Reason Jenkins became so popular is that of its **monitoring of repeated tasks** which arise during the development of a project.
- Example, if your team is developing a project, Jenkins will **continuously test** your project builds and show you the errors in **early stages** of your development.

### Why use Continuous Integration with Jenkins?

- Code is built and test as soon as Developer commits code. Jenkins will build and test code many times during the day.
- On **Successful build**, Jenkins will deploy the source into the test server and notifies the deployment team.
- On **Build Failures**, Jenkins will notify the errors to the developer team.
- Code is built immediately after any of the Developer commits.
- **Automated build** and test process saving timing and reducing defects.

### Advantage of using Jenkins

- **Jenkins** is being managed by the community which is very open. Every month, they hold public meetings and take inputs from the public for the development of Jenkins project.
- As technology grows, so does Jenkins. So far Jenkins has around 320 plugins published in its plugins database. With plugins, Jenkins becomes even more powerful and feature rich.
- Jenkins also supports cloud-based architecture so that you can deploy Jenkins in cloud-based platforms.
- Jenkins Support Docker Containers, you can containerize Jenkins Service.

## Jenkins Alternatives

- **Drone CI** (CD Platform written in GO)
- **TeamCity** (JetBrains)
- **Wercker**
- **CircleCI**
- **CodeShip**
- **SemaPhoreCI**

*Will see you in Next Lecture...*

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*Thank you!*

A close-up photograph of a hand holding a black marker, writing the words 'Thank you!' in a cursive script on a white surface. The hand is positioned on the right side of the frame, with the fingers gripping the marker. The marker's tip is just finishing the exclamation point. The background is plain white.

*See you in next lecture ...*