

GETTING STARTED WITH JENKINS

By-

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APTENCE

YOUR PERSONALIZED APTITUDE TRAINER

ABOUT US

CORE TEAM

IMRAN RASHID

FOUNDER & CEO

B. Tech (IIT-BHU)

6 years of exp. in
school education
sector

PRABHAT PANKAJ

CO-FOUNDER &
CTO

B. Tech (IIT-BHU)

2 years exp. in IT and
6 years of exp. in
Energy Consulting

NIKHIL SHARMA

SALES & BD

B.Tech (HBTI,
Kanpur)

3.5 years of exp. in
Energy Consulting

ANIL RICCHARIA

EDUCATION
SPECIALIST

18 years of exp. in Test
Prep Industry

THE PROBLEM

Is the present education system doing enough to enhance students' mental aptitude? Perhaps not...



Focus on textbook learning and syllabus coverage



School testing methods - superficial and memory based



No measure to test in-depth conceptual understanding



No stress on Logic-based learning and Critical Thinking

APTITUDE ENHANCEMENT – THE NEED



- **Essential skills** in today's world: Critical Thinking and Logical Reasoning
- School level and PAN India Competitions consistently test 3 key areas: **Mental Ability, Maths And Verbal Skills**
- Competitive Exams = **Gateway to top institutes**
- **Analytical and critical thinking skills** are highly important and find application in most career lines today.

OUR SOLUTION - APTENCE

IMPROVES:

- PROBLEM SOLVING SKILLS
- COGNITIVE ABILITY



FOCUSSES ON:

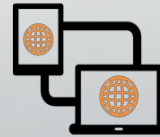
- LOGIC
- MATHEMATICS
- VERBAL SKILLS



PERSONALIZED



GAMIFIED



ALL PLATFORMS



RIGHT DURATION

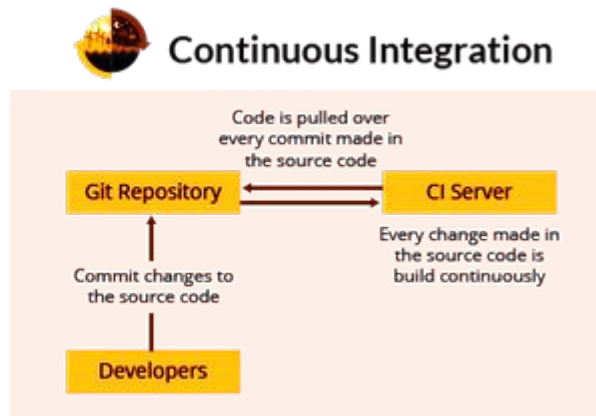
Learnings

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- What is Continuous Integration?
 - What is Build Automation?
 - Introduction to Jenkins
 - Jenkins Alternatives
 - Getting Started with Jenkins
 - Jenkins deployment using github
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What is Continuous Integration?

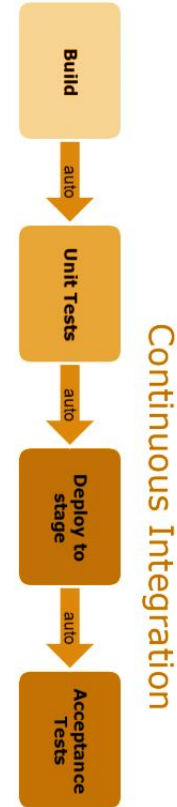
Continuous integration is a DevOps software development practice where developers regularly merge their code changes into a central repository, after which automated builds and tests are run. Continuous integration most often refers to the build or integration stage of the software release process and entails both an automation component (e.g. a CI or build service) and a cultural component (e.g. learning to integrate frequently).

– Martin Fowler



Continuous Integration Benefits

1. Risk Mitigation
2. Confidence
3. Team Communication
4. Reduced Overhead
5. Consistency of Build Process



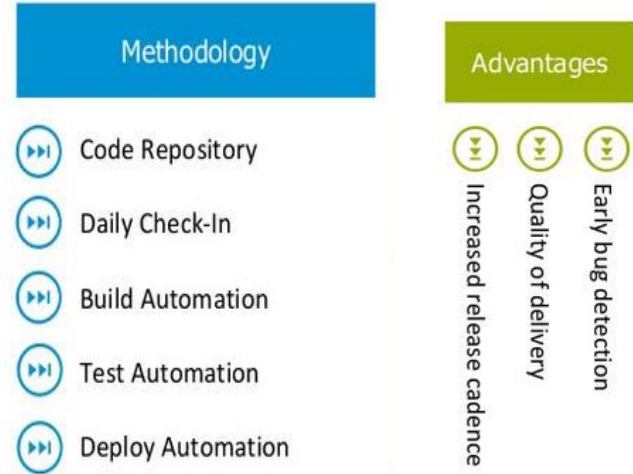
Continuous Integration - Benefits

Avoid Wastage of Development hours

Immediate bug detection

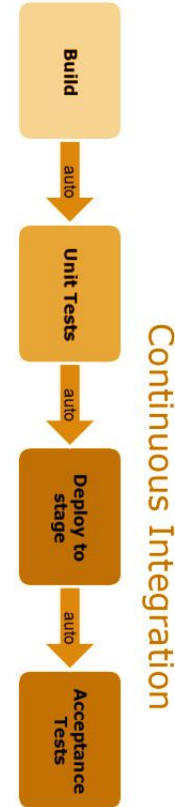
A deployable system at any given point

Record of evolution of the project



Continuous Integration Benefits

1. Risk Mitigation
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What is Build Automation?

Build automation is the process of automating the creation of a software build and the associated processes including: compiling computer source code into binary code, packaging binary code, and running automated tests.

Build Tools help in creating seamless, smooth and automated build process. We can configure what different stages in our build process OR what different commands should be executed.

Popular Build Tools

maven

 **gradle**



 MSBuild



Introduction to Jenkins

Jenkins is a **Continuous Integration (CI) server** or tool which is written in java. It provides Continuous Integration services for software development, which can be started via command line or web application server. And also, it is happy to know that **Jenkins** is free software to download and install.



Jenkins - History

2005 - Hudson was first release by Kohsuke Kawaguchi of Sun Microsystems



2010 – Oracle bought Sun Microsystems



Due to a naming dispute, Hudson was renamed to Jenkins



Oracle continued development of Hudson (as a branch of the original)



Jenkins - Why?

Jenkins is a highly configurable system by itself



The additional community developed plugins provide even more flexibility



By combining Jenkins with Ant, Gradle, Maven, Grunt, Gulp, or other Build Automation tools, the possibilities are limitless



Jenkins - Why?

There is a large support community and thorough documentation



It's easy to write plugins



Think something is wrong with it? You can fix it!



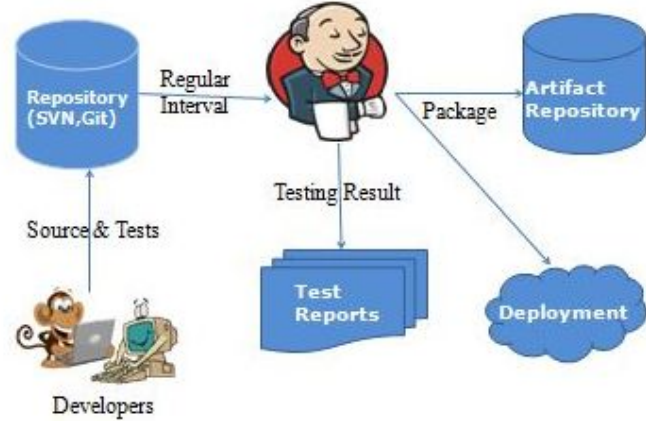
Who uses Jenkins?



Continuous Integration with Jenkins

Jenkins tool is heavily used in CI which allows code to build, deployed and tested automatically.

It is a simple, extensible, and user-friendly open source tool that provides CI services for application development. Jenkins supports SCM tools such as StarTeam, Subversion, CVS, Git, AccuRev and so on. Jenkins can build Freestyle, Apache Ant, and Apache Maven-based projects.



Jenkins Alternatives

TeamCity - allows for personal builds, pre- tested commits



Bamboo - Atlassian's CI server, good, but somewhat inflexible



Cruise Control - bleurgh, old, behind the times



Travis CI - **free for all open source projects** hosted on the GitHub and for the first 100 builds otherwise



Last, but not the least Cron and bash...

Getting Started with Jenkins

Jenkins - Installation - Lab

- Install Jenkins on Ubuntu 18.04

Nodejs app server - Lab

- Install nodejs on Ubuntu 18.04

Github webhook integration- Lab