# Jenkins 2(01)

Getting Started with CI/CD as Code

#### A Bit About Me

- Software Engineer at CloudBees
- 5 years working on software from hardware to the cloud
- Twitter: @lighteningdrake
- GitHub: kwhetstone



#### Jenkins!



## Jenkins

Build great things at any scale

The leading open source automation server, Jenkins provides hundreds of plugins to support building, deploying and automating any project.

**Download Jenkins** 

## Jenkins is the Hub of the CD/DevOps Ecosystem

Over 1000 Jenkins Plugins



Integration with over 100 **DevOps Tools** 



Orchestration of the DevOps Toolchain



openstac

End-to-End CD Pipeline Management

Code & Commit git GitHub ca @Stash SERENA SUBVERSION StarTeam PERFORCE artifactoru mercurial ■ Nexus

Visual Studio

eclipse





Scan & Test



Release



Deploy

#### Jenkins 2

- Pipeline as code: front and center
- Improved "out of the box" user experience
  - Suggested Plugins
  - More secure defaults
- Various user interface improvements
- A few underlying changes for plugin developers

## Jenkins Pipeline



-- Courtesy of the BlueOcean Plugin

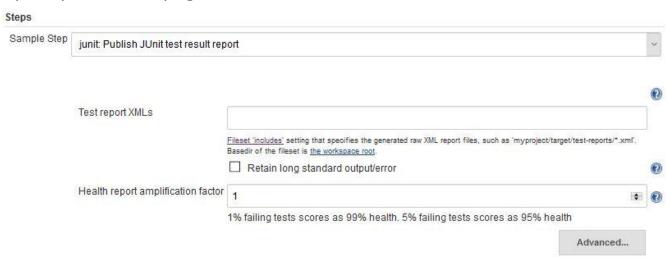
## Pipeline Script

```
node {
    git 'http://git-server/user/myAwesomeProject.git'
    stage('build') {
       slackSend "Build Started - ${env.JOB NAME}
${env.BUILD NUMBER}"
       sh 'mvn clean install'
    stage('test') {
        sh 'mvn test'
        junit 'report.xml'
    milestone 'prod'
    stage('deploy') {
        openshiftDeploy 'myAwesomeProject'
```

### Plugin Support

- Snippet Generator
  - Accessible from pipeline job
  - Steps for your installed plugins

https://jenkins.io/doc/pipeline/steps/

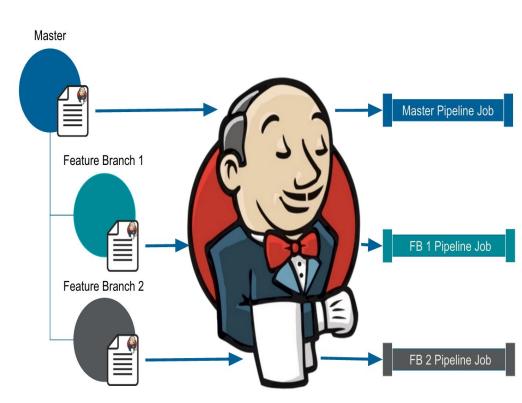


### Pipeline Shared Libraries

- Define common steps for reuse in your organization
- Commit common steps to source control
- Associate different shared libraries with different folders
- load 'utils.groovy'Built into Pipeline
- @Library('somelib')
  - https://github.com/jenkinsci/workflow-cps-global-lib-plugin
- @Grab('org.apache.commons:commons-math3:3.4.1')
  - Trusted 3rd party libraries (usually from maven central) see Grape documentation
- Examples:
  - o github.com/docker/jenkins-pipeline-scripts
  - github.com/jenkins-infra/pipeline-library
  - https://github.com/cloudbeers/multibranch-demo

#### Multibranch Pipeline

- Branch with a Jenkinsfile → one per subproject
  - Pipeline script
  - just checkout scm to get full source tree
- Can edit Jenkinsfile (Pipeline) in your branch
  - revision matches sources
- Git, SVN, Mercurial
- Dedicated GitHub support
  - GitHub API
  - PullRequest



### **Demo Time!**



#### Check Out CloudBees

- The hub of enterprise Jenkins and DevOps -> Software at the speed of ideas
- Booth 37 (right outside the door)



