

# Module 4: Continuous Integration With Jenkins

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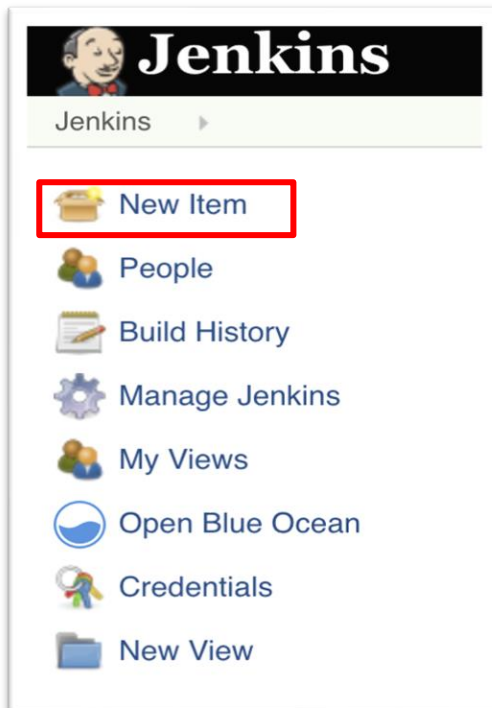
edureka!

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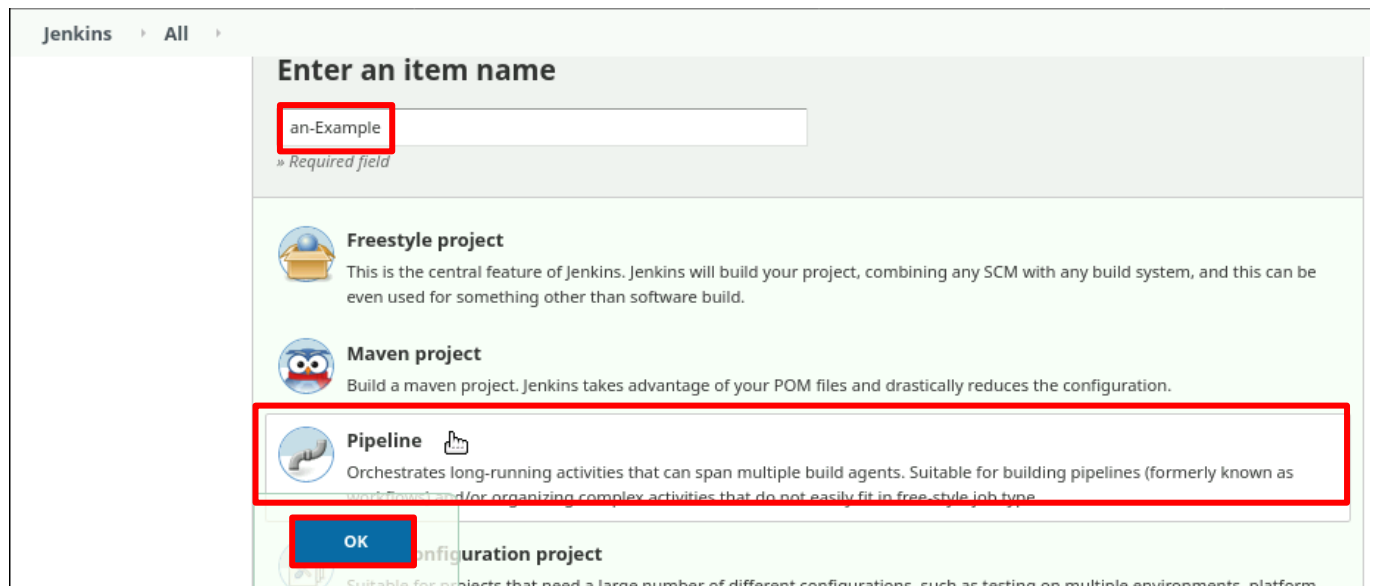
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## Demo 3: Build a Pipeline project using Groovy Script.

**Step1:** Create a Pipeline Project by navigating to Jenkins -> New Item

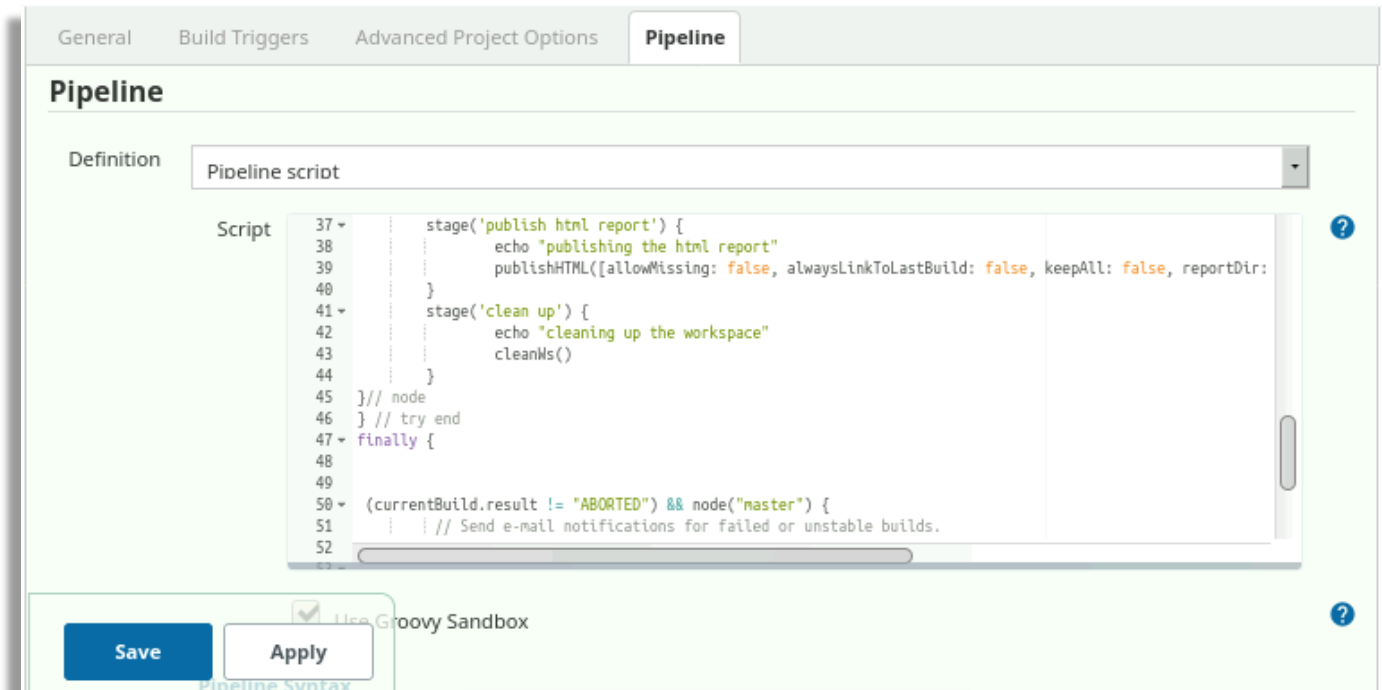


**Step-2** Create a Pipeline project for your job.



**Step-3:** Go to your project and start configuring it.

**Step-4:** Go to the Advanced Project option and write your code within the Pipeline definition. The code is mentioned below if you want to copy and paste the code to generate the pipeline. Replace the “some email id” with the email\_id you want to send the email to if the build fails.



```
#!/usr/bin/env groovy
```

```
import hudson.model.*
import hudson.EnvVars
import groovy.json.JsonSlurperClassic
import groovy.json.JsonBuilder
import groovy.json.JsonOutput
import java.net.URL
```

```
try {
```

```
node{
```

```
    stage('Checkout') {
```

```
git 'https://github.com/edureka-git/DevOpsClassCodes'

}

stage('Build') {
    dir('') {
        sh 'mvn -B -V -U -e clean package'
    }
}

stage ('Email') {
    emailx attachLog: true, body: 'The status of the build can be obtained
from the build log attached', subject: 'The build update is ', to: 'some
email id'
}

stage('Deployment') {
    // Deployment
    script {
        echo "deployment"

        sh 'cp
/var/lib/jenkins/workspace/package_1/target/addressbook.war
/opt/tomcat/webapps/'
    }
}

stage('publish html report') {
    echo "publishing the html report"

    publishHTML([allowMissing: false, alwaysLinkToLastBuild:
false, keepAll: false, reportDir: '', reportFiles: 'index.html', reportName:
'HTML Report', reportTitles: ''])
}

stage('clean up') {
    echo "cleaning up the workspace"

    cleanWs()
}
```

```
    }  
    } // node  
    } // try end  
    finally {  
  
        (currentBuild.result != "ABORTED") && node("master") {  
            // Send e-mail notifications for failed or unstable builds.  
            // currentBuild.result must be non-null for this step to work.  
            step([$class: 'Mailer',  
                notifyEveryUnstableBuild: true,  
                recipients: 'some email id',  
                sendToIndividuals: true])  
        }  
    }  
}
```

**Step 5.** If you are getting any error in the deployment stage, make sure you are copying the war file to webapps folder correctly, i.e., provide the war file location and tomcat directory path correctly.

**Step 6.** Then, save the code and click on build now to build the project.

**Step 7.** If you're getting some error related to HTML report, then go to manage Jenkins->manage plugins->available and install HTML publisher plugin.

**Step 8.** Go to the console output and check the build of your project.



# Jenkins

Jenkins
an-Example
#9

 Back to Project
 Status
 Changes
 Console Output

 View as plain text

 Edit Build Information
 Delete build '#9'
 Git Build Data
 Replay



## Console Output

Started by user **admin**  
Running in Durability level: MAX\_SURVIVABILITY  
[Pipeline] Start of Pipeline  
[Pipeline] node  
Running on **Jenkins** in /var/lib/jenkins/workspace/an-Example  
[Pipeline] {  
[Pipeline] stage  
[Pipeline] { (Checkout)  
[Pipeline] git  
The recommended git tool is: NONE  
No credentials specified  
Cloning the remote Git repository  
Cloning repository <https://github.com/edureka-git/DevOpsClassCodes>  
> git init /var/lib/jenkins/workspace/an-Example # timeout=10  
Fetching upstream changes from <https://github.com/edureka-git/DevOpsClassCodes>  
> git --version # timeout=10  
> git --version # 'git version 2.17.1'

Fetching changes from the remote Git repository  
> git config remote.origin.url <https://github.com/edureka-git/DevOpsClassCodes> # timeout=10  
Fetching upstream changes from <https://github.com/edureka-git/DevOpsClassCodes>  
> git --version # timeout=10  
> git --version # 'git version 2.17.1'  
> git fetch --tags --progress -- <https://github.com/edureka-git/DevOpsClassCodes> +refs/heads/\*:refs/remotes/origin/\* # timeout=10  
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10  
Checking out Revision c986b9eb275ae50c5a7b9b1d757be5c58e38c0da (refs/remotes/origin/master)  
> git config core.sparsecheckout # timeout=10  
> git checkout -f c986b9eb275ae50c5a7b9b1d757be5c58e38c0da # timeout=10  
> git branch -a -v --no-abbrev # timeout=10  
> git branch -D master # timeout=10  
> git checkout -b master c986b9eb275ae50c5a7b9b1d757be5c58e38c0da # timeout=10  
Commit message: "initial commit"  
> git rev-list --no-walk c986b9eb275ae50c5a7b9b1d757be5c58e38c0da # timeout=10  
[Pipeline] }

publishing the html report  
[Pipeline] publishHTML  
[htmlpublisher] Archiving HTML reports...  
[htmlpublisher] Archiving at PROJECT level /var/lib/jenkins/workspace/an-Example to /var/lib/jenkins/jobs/an-Example/htmlreports/HTML\_20Report  
[Pipeline] }  
[Pipeline] // stage  
[Pipeline] stage  
[Pipeline] { (clean up)  
[Pipeline] echo  
cleaning up the workspace  
[Pipeline] cleanWs  
[WS-CLEANUP] Deleting project workspace...  
[WS-CLEANUP] Deferred wipeout is used...  
[WS-CLEANUP] done  
[Pipeline] }  
[Pipeline] // stage  
[Pipeline] }  
[Pipeline] // node  
[Pipeline] node  
Running on **Jenkins** in /var/lib/jenkins/workspace/an-Example  
[Pipeline] {  
[Pipeline] step  
No mail will be sent out, as 'an-Example #6' does not have a result yet. Please make sure you set a proper result in case of pipeline/build scripts.  
[Pipeline] }  
[Pipeline] // node  
[Pipeline] End of Pipeline  
Finished: SUCCESS

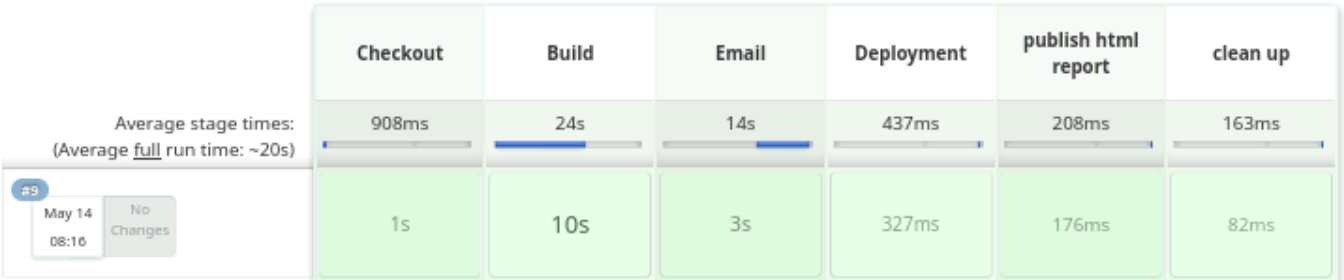
**Step-9:** Go back to your project and check the pipeline flow.

## Pipeline an-Example

Pipeline project



### Stage View



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