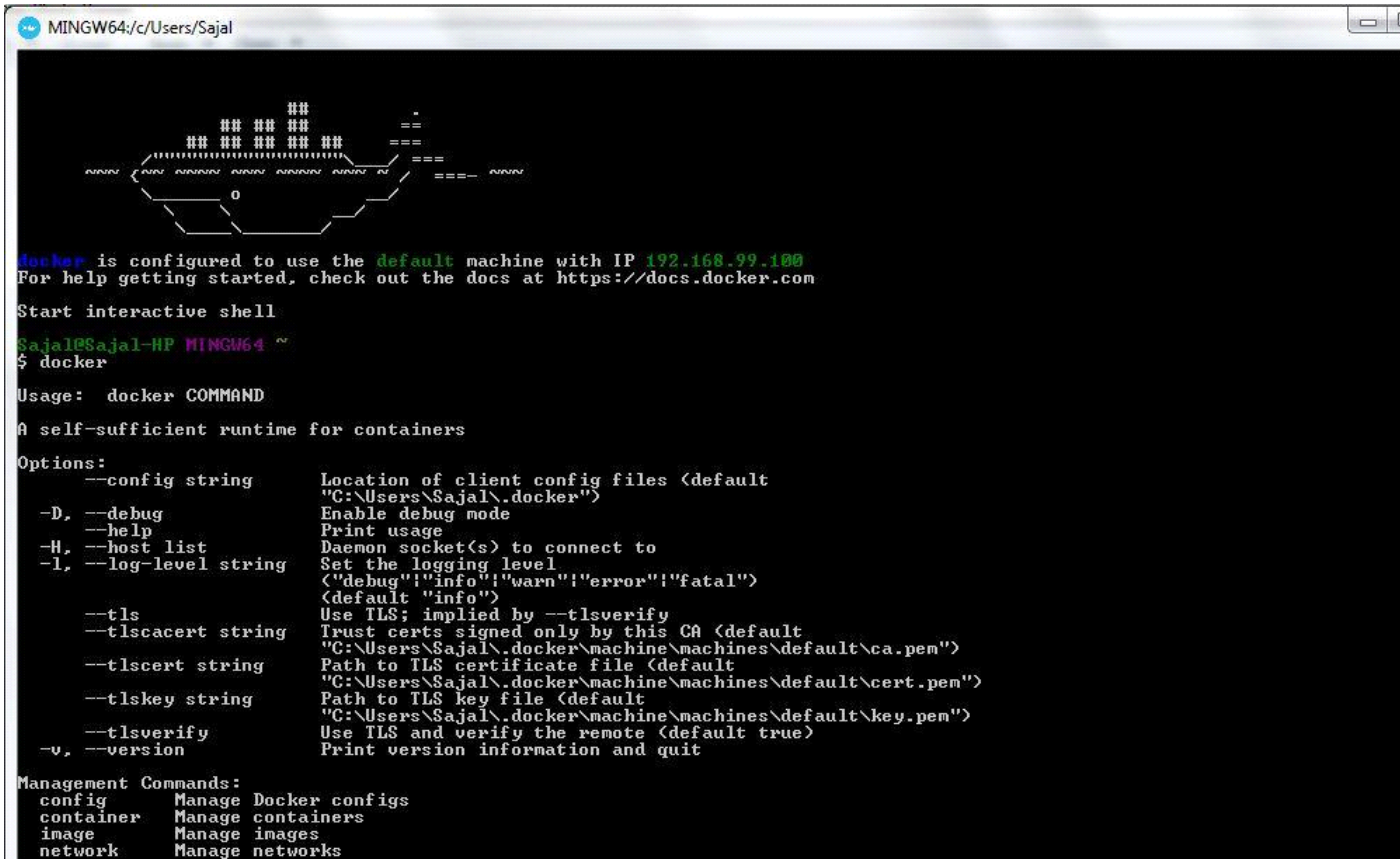
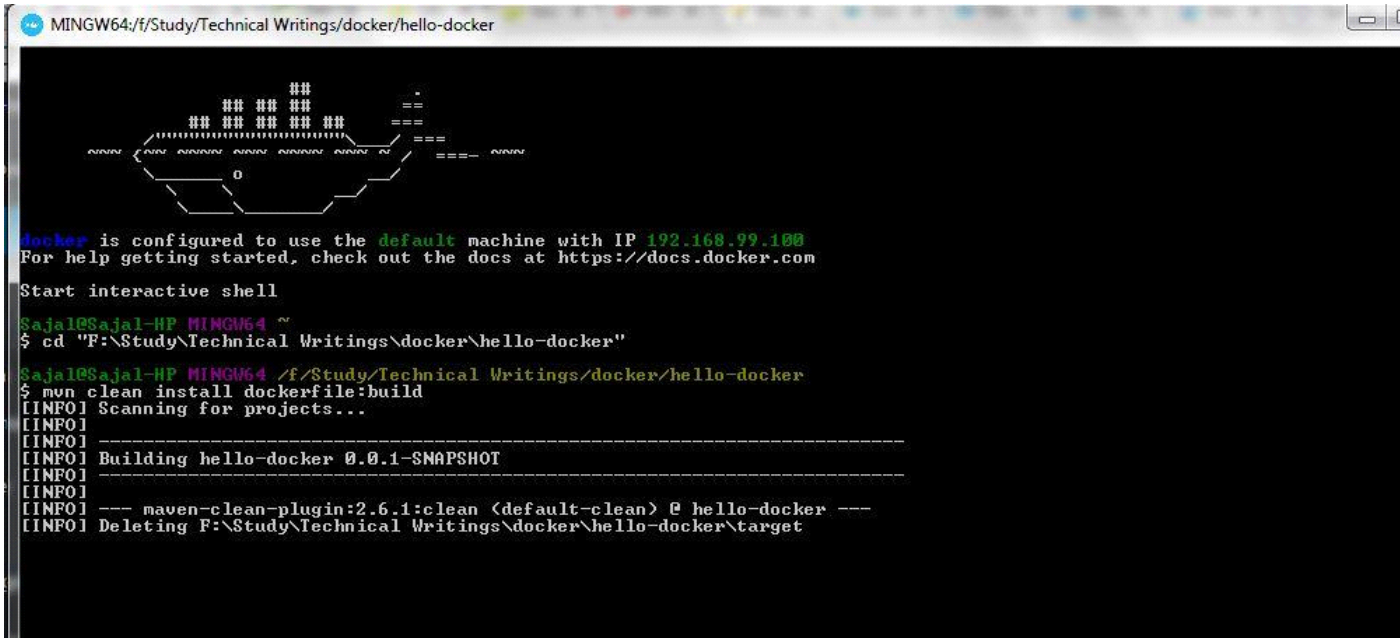
Deploying ELK Stack on Docker Container




MINGW64:/f/Study/Technical Writings/docker/hello-docker
docker is configured to use the default machine with IP 192.168.99.100
For help getting started, check out the docs at https://docs.docker.com
Start interactive shell
Sajal@Sajal-HP MINGW64 ~
$ cd "F:\Study\Technical Writings\docker\hello-docker"
Sajal@Sajal-HP MINGW64 /f/Study/Technical Writings/docker/hello-docker
$ mvn clean install dockerfile:build
[INFO] Scanning for projects...
[INFO]
[INFO] --
[INFO] Building hello-docker 0.0.1-SNAPSHOT
[INFO] --
[INFO]
[INFO] --- maven-clean-plugin:2.6.1:clean (default-clean) @ hello-docker ---
[INFO] Deleting F:\Study\Technical Writings\docker\hello-docker\target

localhost:9080/hello/sajal
Hello sajal Response received on : Tue Aug 15 21:54:14 IST 2017

Sajal@Sajal-HP MINGW64 /f/Study/Technical Writings/docker/hello-docker
$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS POR
NAMES
bc53db062934 hello-howtodoinjava/hello-docker "sh -c 'java $JAVA..." 10 minutes ago Up 10 minutes 0.0
80->9080/tcp cocky_hermann
Sajal@Sajal-HP MINGW64 /f/Study/Technical Writings/docker/hello-docker
$ docker stop cocky_hermann
cocky_hermann

Generate a Maven Project with Spring Boot 1.4.0

Project Metadata

Artifact coordinates

Group

com.howtodoinjava.demo

Artifact

springbootdemo

Name

SpringBootDemo

Description

Spring Boot Demo for http://howtodoinjava.com

Package Name

com.howtodoinjava.demo

Packaging

Jar

Java Version

1.8

Language

Java

Too many options? Switch back to the simple version.

Dependencies

Add Spring Boot Starters and dependencies to your application

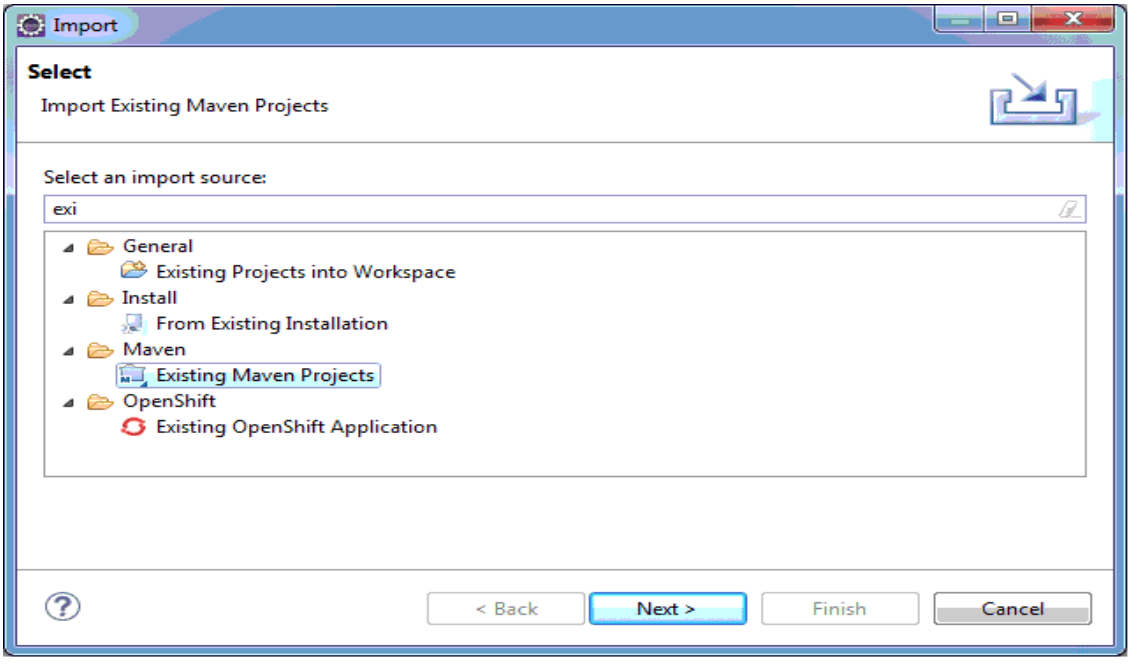
Search for dependencies

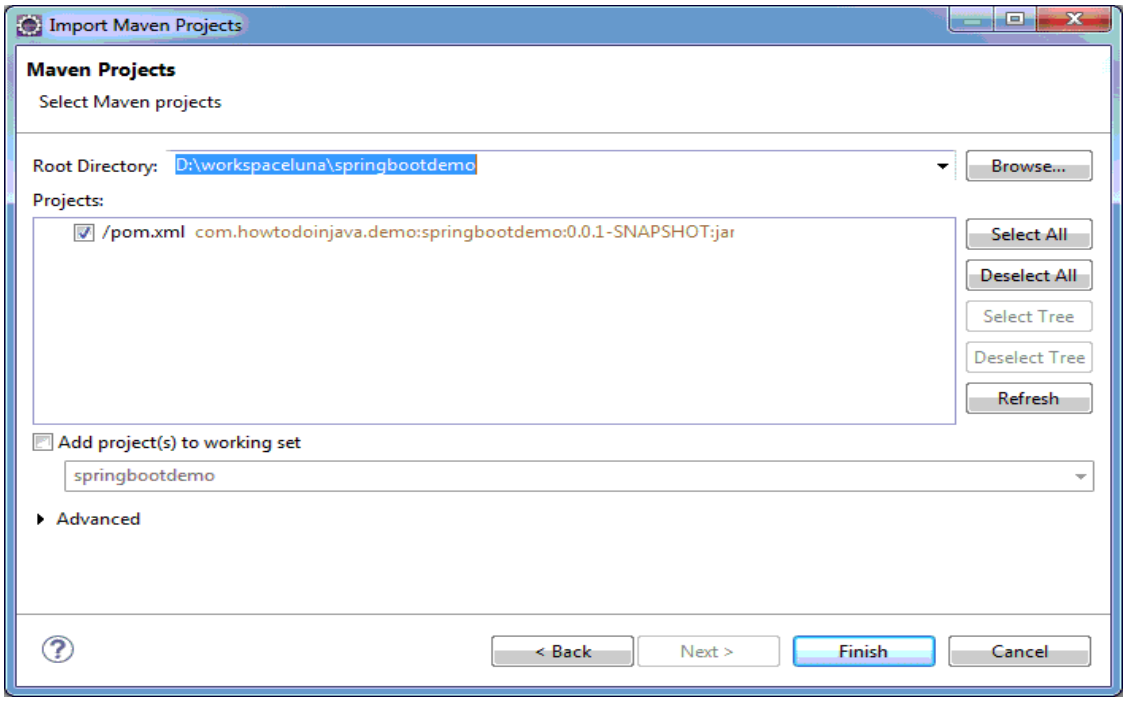
Web, Security, JPA, Actuator, Devtools...

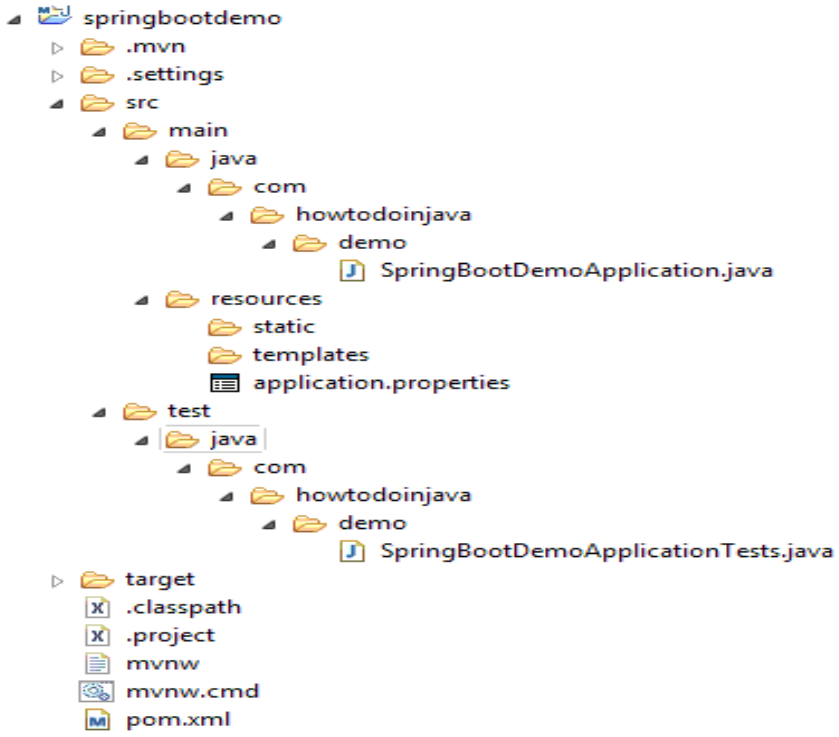
Selected Dependencies

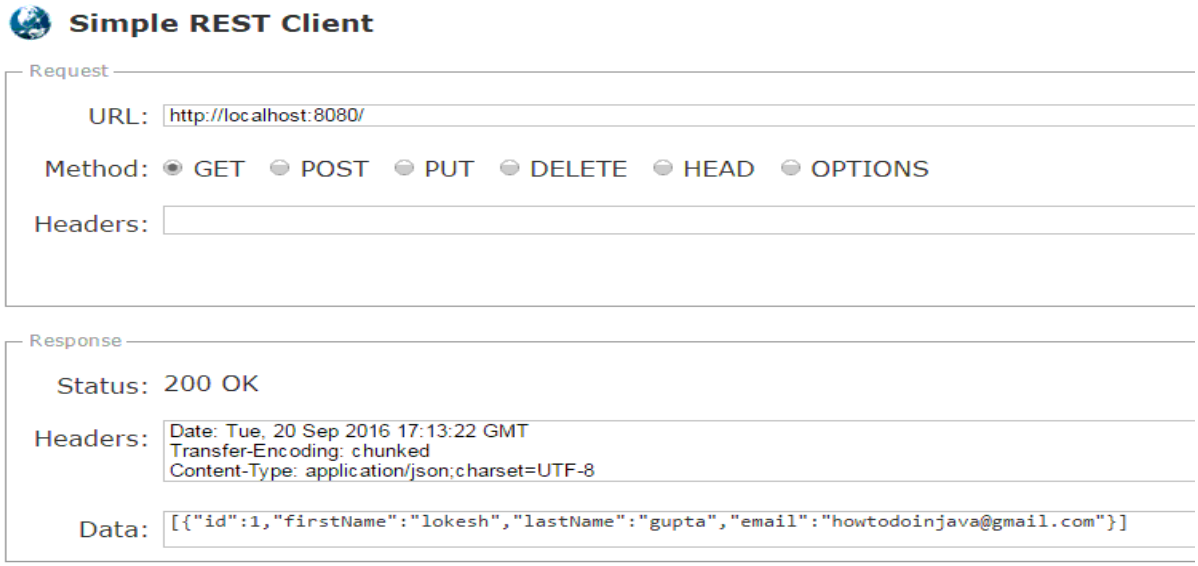
Web × Jersey (JAX-RS) × HATEOAS × JPA × Security × HSQLDB ×

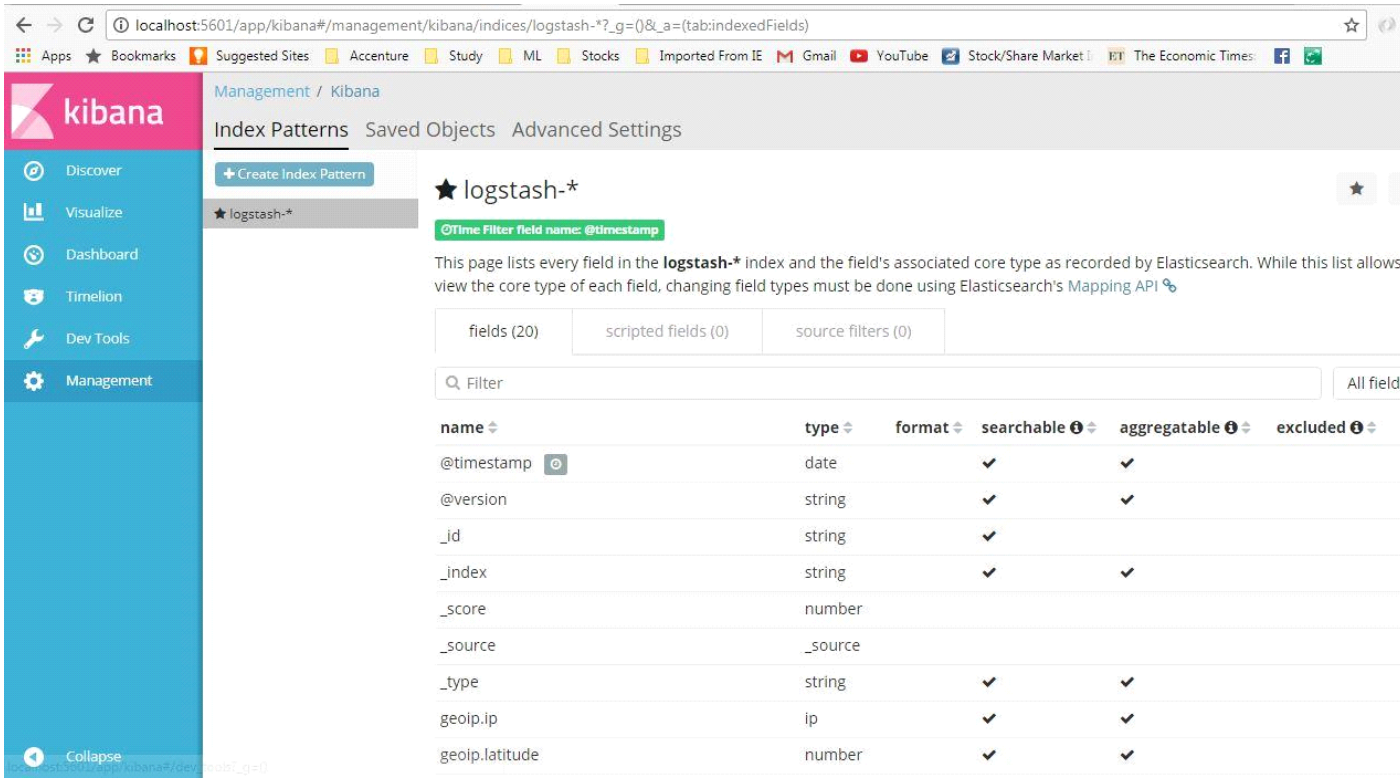
Generate Project alt + ⏎

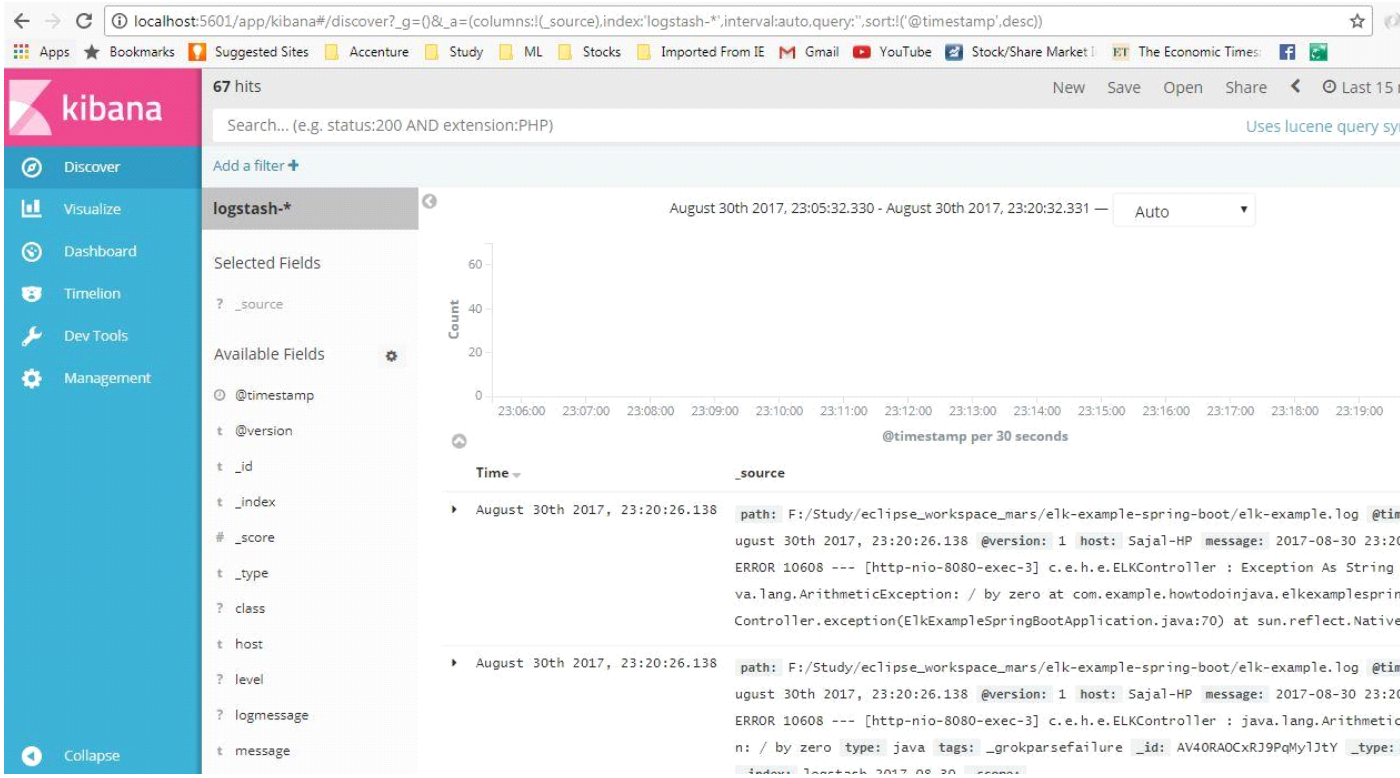


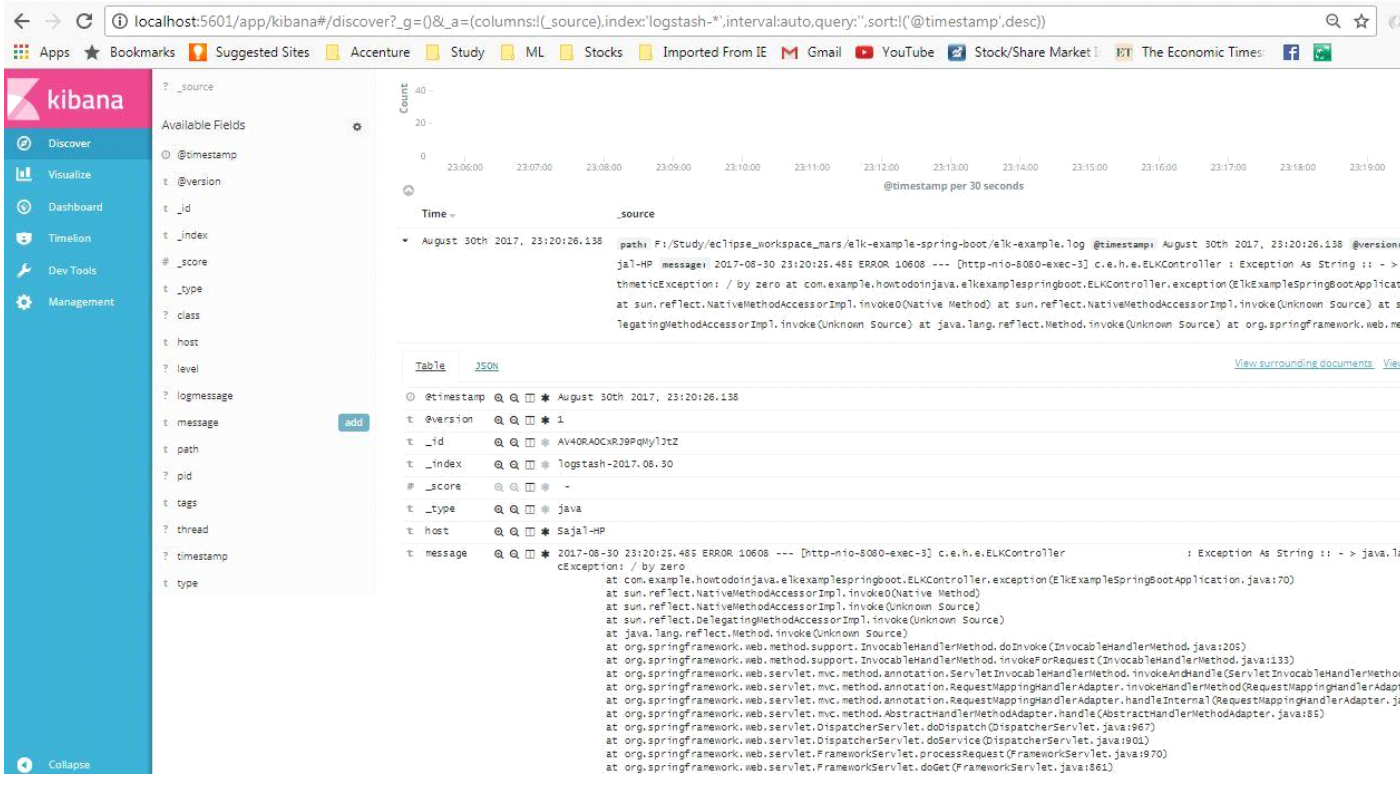

Import Maven Projects
Maven Projects
Select Maven projects
Root Directory:
D:\workspaceluna\springbootdemo
Browse...
Projects:
/pom.xml com.howtodoinjava.demo:springbootdemo:0.0.1-SNAPSHOT:jar
Select All
Deselect All
Select Tree
Deselect Tree
Refresh
Add project(s) to working set
springbootdemo
Advanced
< Back
Next >
Finish
Cancel


springbootdemo
.mvn
.settings
src
main
java
com
howtodoinjava
demo
SpringBootDemoApplication.java
resources
static
templates
application.properties
test
java
com
howtodoinjava
demo
SpringBootDemoApplicationTests.java
target
.classpath
.project
mvnw
mvnw.cmd
pom.xml


Simple REST Client
Request
URL: http://localhost:8080/
Method: GET POST PUT DELETE HEAD OPTIONS
Headers:
Response
Status: 200 OK
Headers: Date: Tue, 20 Sep 2016 17:13:22 GMT
Transfer-Encoding: chunked
Content-Type: application/json;charset=UTF-8
Data: [{"id":1,"firstName":"lokesh","lastName":"gupta","email":"howtodoinjava@gmail.com"}]


localhost:5601/app/kibana#/management/kibana/indices/logstash-*?_g=()&_a=(tab:indexedFields)
Apps Bookmarks Suggested Sites Accenture Study ML Stocks Imported From IE Gmail YouTube Stock/Share Market The Economic Times
kibana
Management / Kibana
Index Patterns Saved Objects Advanced Settings
Discover
Visualize
Dashboard
Timelion
Dev Tools
Management
Collapse
Create Index Pattern
logstash-*
logstash-*
Time Filter field name: @timestamp
This page lists every field in the logstash-* index and the field's associated core type as recorded by Elasticsearch. While this list allows
view the core type of each field, changing field types must be done using Elasticsearch's Mapping API
fields (20) scripted fields (0) source filters (0)
Filter
All field
name type format searchable aggregatable excluded
@timestamp date
@version string
_id string
_index string
_score number
_source _source
_type string
geoip.ip ip
geoip.latitude number


localhost:5601/app/kibana#/discover?_g=()&_a=(columns:!(_source),index:'logstash-*',interval:auto,query:'',sort:!('@timestamp',desc))
Apps
Bookmarks
Suggested Sites
Accenture
Study
ML
Stocks
Imported From IE
Gmail
YouTube
Stock/Share Market
The Economic Times
kibana
67 hits
New
Save
Open
Share
Last 15
Search... (e.g. status:200 AND extension:PHP)
Uses lucene query sy
Discover
Visualize
Dashboard
Timelion
Dev Tools
Management
Add a filter
logstash-*
August 30th 2017, 23:05:32.330 - August 30th 2017, 23:20:32.331 —
Auto
Selected Fields
_source
Available Fields
@timestamp
@version
_id
_index
_score
_type
class
host
level
logmessage
message
Count
@timestamp per 30 seconds
Time
_source
August 30th 2017, 23:20:26.138
path: F:/Study/eclipse_workspace_mars/elk-example-spring-boot/elk-example.log
ERROR 10608 --- [http-nio-8080-exec-3] c.e.h.e.ELKController : Exception As String
va.lang.ArithmeticException: / by zero at com.example.howtodoinjava.elkexamplespring
Controller.exception(ElkExampleSpringBootApplication.java:70) at sun.reflect.Native
August 30th 2017, 23:20:26.138
path: F:/Study/eclipse_workspace_mars/elk-example-spring-boot/elk-example.log
ERROR 10608 --- [http-nio-8080-exec-3] c.e.h.e.ELKController : java.lang.Arithmetic
n: / by zero type: java tags: _grokparsefailure _id: AV40RAOCxRJ9PqMylJtY _type:
Collapse


localhost:5601/app/kibana#/discover?_g=()&_a=(columns:!(_source),index:'logstash-*',interval:auto,query:'',sort:!('@timestamp',desc))
kibana
Discover
Visualize
Dashboard
Timelion
Dev Tools
Management
Collapse
Available Fields
@timestamp
@version
_id
_index
_score
_type
class
host
level
logmessage
message
add
path
pid
tags
thread
timestamp
type
Count
@timestamp per 30 seconds
Time
_source
August 30th 2017, 23:20:26.138
Table
JSON
View surrounding documents
@timestamp August 30th 2017, 23:20:26.138
@version 1
_id AV40RAOCxRJ9PqMylJtZ
_index logstash-2017.08.30
_score -
_type java
host Sajal-HP
message 2017-08-30 23:20:25.485 ERROR 10608 --- [http-nio-8080-exec-3] c.e.h.e.ELKController : Exception As String
cException: / by zero
at com.example.howtodoinjava.elkexamplespringboot.ELKController.exception(ElkExampleSpringBootApplication.java:70)
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at sun.reflect.NativeMethodAccessorImpl.invoke(Unknown Source)
at sun.reflect.DelegatingMethodAccessorImpl.invoke(Unknown Source)
at java.lang.reflect.Method.invoke(Unknown Source)
at org.springframework.web.method.support.InvocableHandlerMethod.doInvoke(InvocableHandlerMethod.java:205)
at org.springframework.web.method.support.InvocableHandlerMethod.invokeForRequest(InvocableHandlerMethod.java:133)
at org.springframework.web.servlet.mvc.method.annotation.ServletInvocableHandlerMethod.invokeAndHandle(ServletInvocableHandlerMethod
at org.springframework.web.servlet.mvc.method.annotation.RequestMappingHandlerAdapter.invokeHandlerMethod(RequestMappingHandlerAdapt
at org.springframework.web.servlet.mvc.method.annotation.RequestMappingHandlerAdapter.handleInternal(RequestMappingHandlerAdapter.j
at org.springframework.web.servlet.mvc.method.AbstractHandlerMethodAdapter.handle(AbstractHandlerMethodAdapter.java:85)
at org.springframework.web.servlet.DispatcherServlet.doDispatch(DispatcherServlet.java:967)
at org.springframework.web.servlet.DispatcherServlet.doService(DispatcherServlet.java:901)
at org.springframework.web.servlet.FrameworkServlet.processRequest(FrameworkServlet.java:970)
at org.springframework.web.servlet.FrameworkServlet.doGet(FrameworkServlet.java:861)

Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:

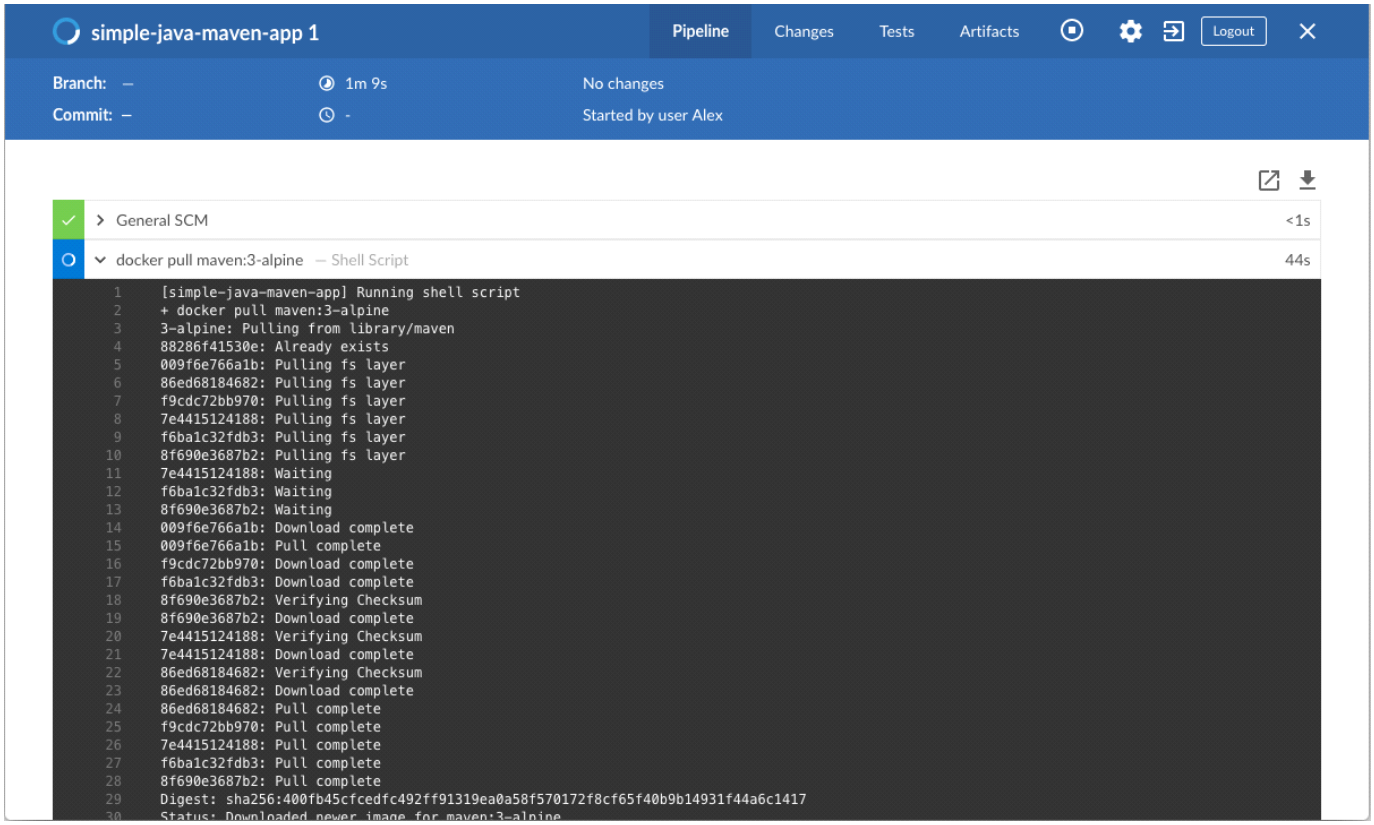
`/var/jenkins_home/secrets/initialAdminPassword`

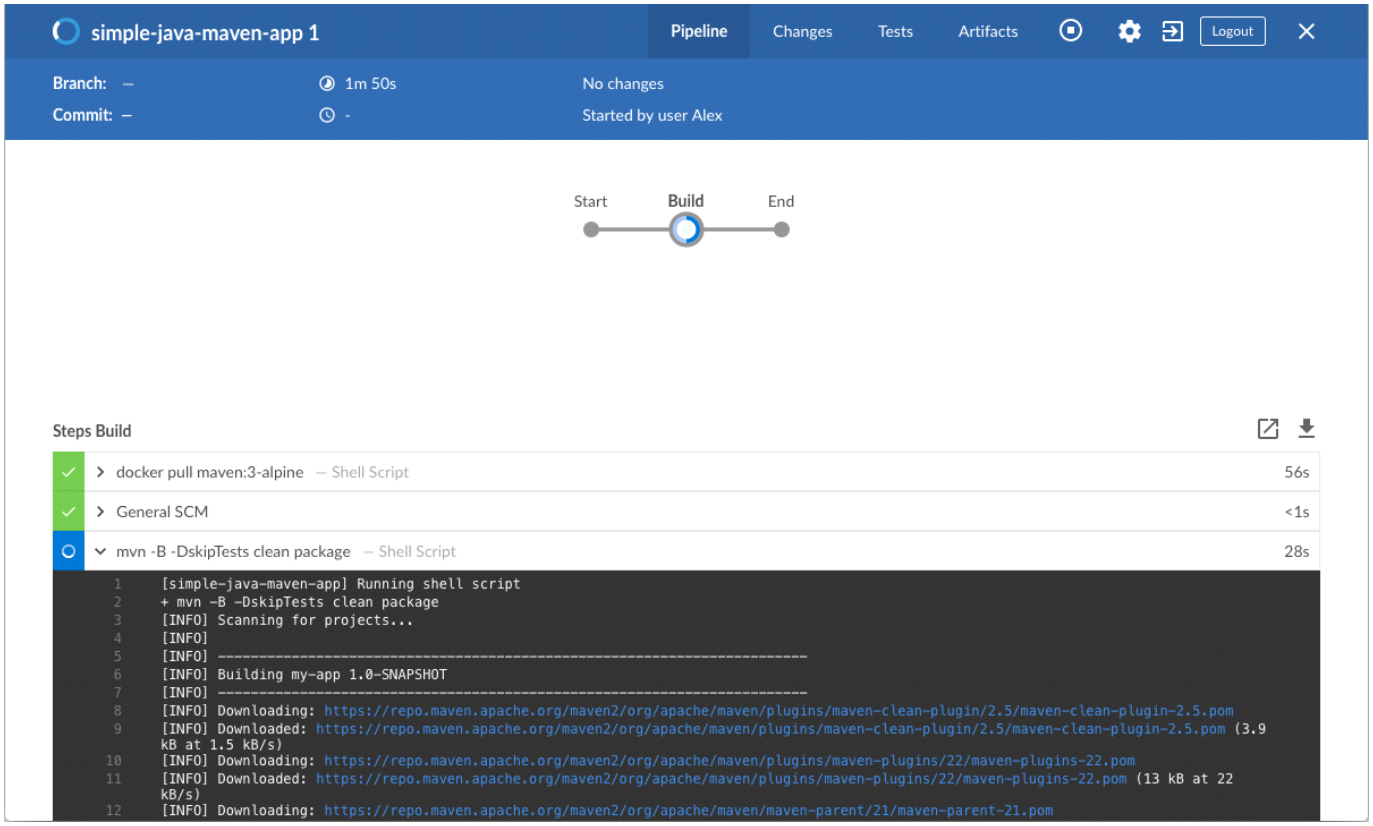
Please copy the password from either location and paste it below.

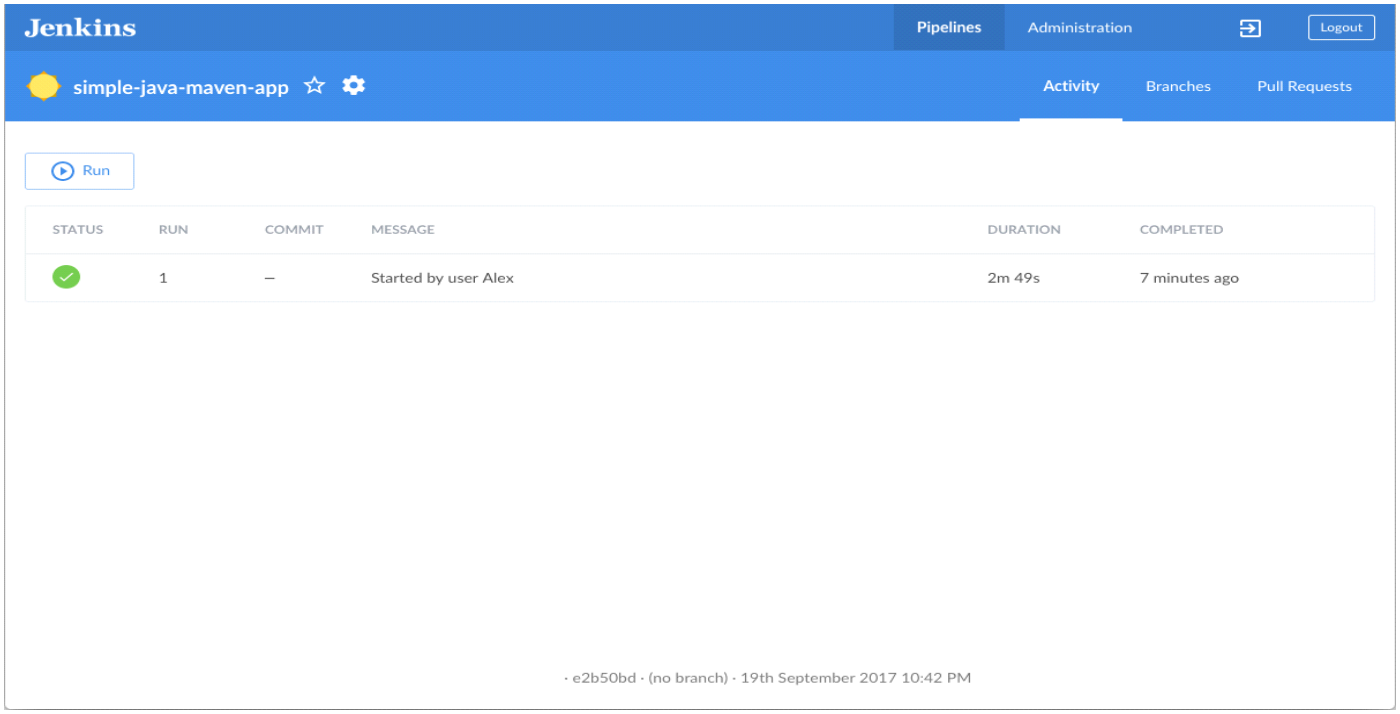
Administrator password

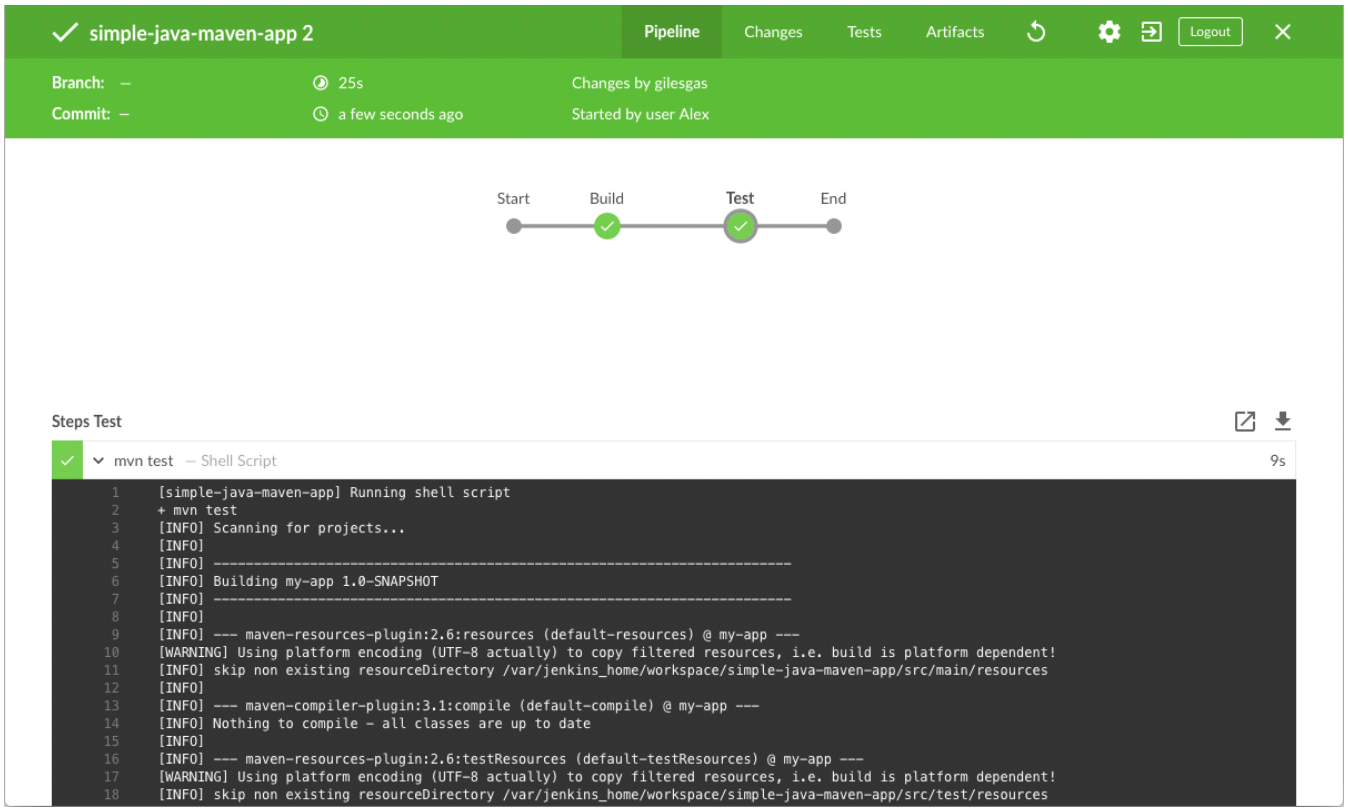
Continue

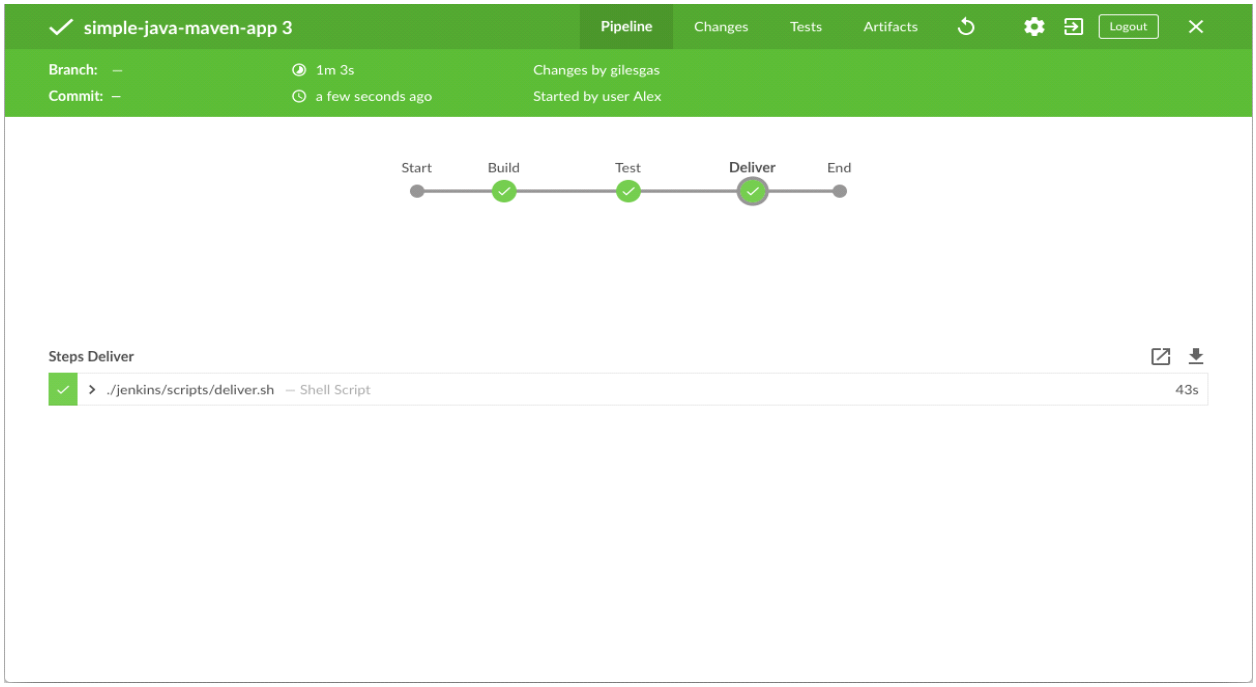
```
INFO: Pre-instantiating singletons in org.springframework.beans.factory.support.DefaultListableBeanFactory@24cf7404: defining b
eans [filter,legacy]; root of factory hierarchy
Sep 30, 2017 7:18:39 AM jenkins.install.SetupWizard init
INFO:

*************************************************************
*************************************************************
*************************************************************

Jenkins initial setup is required. An admin user has been created and a password generated.
Please use the following password to proceed to installation:

2f064d3663814887964b682940572567

This may also be found at: /var/jenkins_home/secrets/initialAdminPassword

*************************************************************
*************************************************************
*************************************************************

--> setting agent port for jnlp
--> setting agent port for jnlp... done
Sep 30, 2017 7:18:51 AM hudson.model.UpdateSite updateData
INFO: Obtained the latest update center data file for UpdateSource default
Sep 30, 2017 7:18:52 AM hudson.model.UpdateSite updateData
INFO: Obtained the latest update center data file for UpdateSource default
Sep 30, 2017 7:18:52 AM hudson.WebAppMain$3 run
INFO: Jenkins is fully up and running
Sep 30, 2017 7:18:52 AM hudson.model.DownloadService$Downloadable load
INFO: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
Sep 30, 2017 7:18:58 AM hudson.model.DownloadService$Downloadable load
INFO: Obtained the updated data file for hudson.tools.JDKInstaller
Sep 30, 2017 7:18:59 AM hudson.model.AsyncPeriodicWork$1 run
INFO: Finished Download metadata. 25,543 ms
```


simple-java-maven-app 1
Pipeline
Changes
Tests
Artifacts
Logout
Branch: –
Commit: –
1m 9s
-
No changes
Started by user Alex
General SCM
<1s
docker pull maven:3-alpine — Shell Script
44s
[simple-java-maven-app] Running shell script
+ docker pull maven:3-alpine
3-alpine: Pulling from library/maven
88286f41530e: Already exists
009f6e766a1b: Pulling fs layer
86ed68184682: Pulling fs layer
f9cdc72bb970: Pulling fs layer
7e4415124188: Pulling fs layer
f6ba1c32fdb3: Pulling fs layer
8f690e3687b2: Pulling fs layer
7e4415124188: Waiting
f6ba1c32fdb3: Waiting
8f690e3687b2: Waiting
009f6e766a1b: Download complete
009f6e766a1b: Pull complete
f9cdc72bb970: Download complete
f6ba1c32fdb3: Download complete
8f690e3687b2: Verifying Checksum
8f690e3687b2: Download complete
7e4415124188: Verifying Checksum
7e4415124188: Download complete
86ed68184682: Verifying Checksum
86ed68184682: Download complete
86ed68184682: Pull complete
f9cdc72bb970: Pull complete
7e4415124188: Pull complete
f6ba1c32fdb3: Pull complete
8f690e3687b2: Pull complete
Digest: sha256:400fb45cfcedfc492ff91319ea0a58f570172f8cf65f40b9b14931f44a6c1417
Status: Downloaded newer image for maven:3-alpine

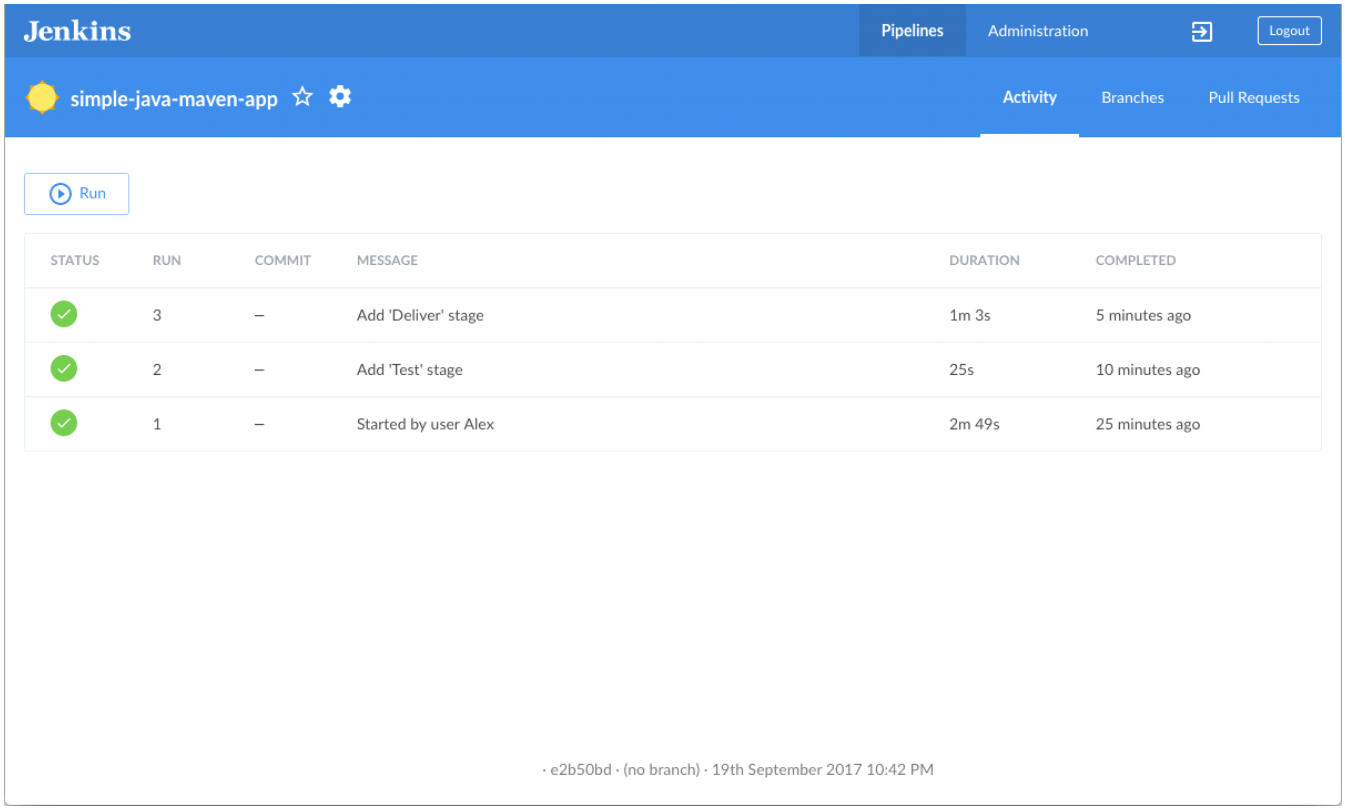

simple-java-maven-app 1
Pipeline
Changes
Tests
Artifacts
Logout
Branch: –
Commit: –
1m 50s
-
No changes
Started by user Alex
Start
Build
End
Steps Build
docker pull maven:3-alpine — Shell Script
56s
General SCM
<1s
mvn -B -DskipTests clean package — Shell Script
28s
[simple-java-maven-app] Running shell script
+ mvn -B -DskipTests clean package
[INFO] Scanning for projects...
[INFO]
[INFO] --
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] --
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/2.5/maven-clean-plugin-2.5.pom
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-clean-plugin/2.5/maven-clean-plugin-2.5.pom (3.9 kB at 1.5 kB/s)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/22/maven-plugins-22.pom
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/22/maven-plugins-22.pom (13 kB at 22 kB/s)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/21/maven-parent-21.pom


Jenkins
Pipelines
Administration
Logout
simple-java-maven-app
Activity
Branches
Pull Requests
Run
STATUS
RUN
COMMIT
MESSAGE
DURATION
COMPLETED
1
–
Started by user Alex
2m 49s
7 minutes ago
· e2b50bd · (no branch) · 19th September 2017 10:42 PM


simple-java-maven-app 2
Pipeline
Changes
Tests
Artifacts
Logout
Branch: –
Commit: –
25s
a few seconds ago
Changes by gilesgas
Started by user Alex
Start
Build
Test
End
Steps Test
mvn test – Shell Script
9s
[simple-java-maven-app] Running shell script
+ mvn test
[INFO] Scanning for projects...
[INFO]
[INFO] --
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] --
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ my-app ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory /var/jenkins_home/workspace/simple-java-maven-app/src/main/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ my-app ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ my-app ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory /var/jenkins_home/workspace/simple-java-maven-app/src/test/resources




```
[INFO] ------------------------------------------------------------------------
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] ------------------------------------------------------------------------
[INFO]
[INFO] --- maven-jar-plugin:3.0.2:jar (default-cli) @ my-app ---
[INFO]
[INFO] --- maven-install-plugin:2.4:install (default-cli) @ my-app ---
[INFO] Installing /var/jenkins_home/workspace/simple-java-maven-app/target/my-app-1.0-SNAPSHOT.jar to
/root/.m2/repository/com/mycompany/app/my-app/1.0-SNAPSHOT/my-app-1.0-SNAPSHOT.jar
[INFO] Installing /var/jenkins_home/workspace/simple-java-maven-app/pom.xml to /root/.m2/repository/com/mycompany/app/my-app/1.0-
SNAPSHOT/my-app-1.0-SNAPSHOT.pom
[INFO]
[INFO] ------------------------------------------------------------------------
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] ------------------------------------------------------------------------
[INFO]
[INFO] --- maven-help-plugin:2.2:evaluate (default-cli) @ my-app ---
[INFO] No artifact parameter specified, using 'com.mycompany.app:my-app:jar:1.0-SNAPSHOT' as project.
[INFO]
my-app
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 1.870 s
[INFO] Finished at: 2017-10-01T13:20:22Z
[INFO] Final Memory: 18M/96M
[INFO] ------------------------------------------------------------------------
+ set +x
The following complex command extracts the value of the <name/> element
within <project/> of your Java/Maven projects "pom.xml" file.
++ mvn help:evaluate -Dexpression=project.name
++ grep '^[^\[]'
+ NAME=my-app
+ set +x
The following complex command behaves similarly to the previous one but
extracts the value of the <version/> element within <project/> instead.
++ mvn help:evaluate -Dexpression=project.version
++ grep '^[^\[]'
+ VERSION=1.0-SNAPSHOT
+ set +x
The following command runs and outputs the execution of your Java
application (which Jenkins built using Maven) to the Jenkins UI.
+ java -jar target/my-app-1.0-SNAPSHOT.jar
Hello World!
```


Jenkins
Pipelines
Administration
Logout
simple-java-maven-app
Activity
Branches
Pull Requests
Run
STATUS
RUN
COMMIT
MESSAGE
DURATION
COMPLETED
3
–
Add 'Deliver' stage
1m 3s
5 minutes ago
2
–
Add 'Test' stage
25s
10 minutes ago
1
–
Started by user Alex
2m 49s
25 minutes ago
· e2b50bd · (no branch) · 19th September 2017 10:42 PM