By Anupriya Sharma
https://github.com/AnupriyaSharma294/ecom-webservice.git

Screenshots

Application Overview Diagram

1. AWS Setup (EC2 Instance)

Selected Ubuntu Server 20.04 LTS AMI 64bit.

Selected t2.xlarge instance since it has more memory and CPU for high performance

t2	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
t3	t3.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes
t3	t3.medium	2	4	EBS only	Yes	Up to 5 Gigabit	Yes
t3	t3.large	2	8	EBS only	Yes	Up to 5 Gigabit	Yes

Disk Storage selection 20 Gb for the ubuntu instance

Network /port configuration for SSH and Web application etc.

Instance created with the configurations

Connected using Terminal (SSH client)

2. Docker

DOCKER HUB Dashboard and Image pushed via command line

3.**Github** (Sample Spring boot application)

4. Jenkins Setup

Access using ec2 public ip:8080 port http://13.127.228.16:8080/login?from=%2F

once login it will show dashboard page

Click on new item to add new Pipeline.
Enter the name and select pipeline project below

Enter description

Select Pipeline script from SCM , select git and enter git url

Specify Branch and jenkins script file in Script Path text box. And click on Apply and Save button.

Jenkins Scripts

agent any

triggers {

pollSCM('* * * * *')

}

// Got permission denied while trying to connect to the Docker daemon socket at unix.

// sudo usermod -a -G docker jenkins

// restart jenkins server -> sudo service jenkins restart

stages {

pipeline {

stage('Maven Compile') {

steps {

```
echo '----------------- This is a compile phase ----------'

sh 'mvn clean compile'

}

}

stage('Maven Test') {

steps {

echo '----------------- This is a Test phase ----------'

sh 'mvn clean test'

}

}

stage('Maven Build') {

steps {

echo '----------------- This is a build phase ----------'

sh 'mvn clean package -DskipTests'

}

}

stage('Docker Build') {

steps {

echo '----------------- This is a build docker image phase ----------'

sh '''

docker image build -t ecom-webservice .

'''

}

}

stage('Docker Deploy') {

steps {

echo '----------------- This is a docker deploment phase ----------'

sh '''

(if [ $(docker ps -a | grep ecom-webservice | cut -d " " -f1) ]; then \

echo $(docker rm -f ecom-webservice); \

echo "---------------- successfully removed ecom-webservice ----------------"

else \
```

```
echo OK; \

fi;);

docker container run --restart always --name ecom-webservice -p 8081:8081 -d ecom-webservice

'''

}

}

}

}
```

After build it will show the progress in different phases as shown below

Build History

Console Output

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard ▸ ecom-webservice-pipeline ▸ #3

Workspaces

Previous Build

```
Commit message: "Update EcomResource.java"
 > git rev-list --no-walk 574c0cea63ec9c537bffa27a154dae94592034c1 # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Maven Compile)
[Pipeline] echo
---------------- This is a compile phase ----------
[Pipeline] sh
+ mvn clean compile
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1
(file:/usr/share/maven/lib/guice.jar) to method
java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[ [1;34mINFO [m] Scanning for projects...
[ [1;34mINFO [m]
[ [1;34mINFO [m]  [1m----------------< [0;36mcom.ecomerce.webapp:ecom-webservice [0;1m >----------------- [m
[ [1;34mINFO [m]  [1mBuilding ecom-webservice 0.0.1-SNAPSHOT [m
[ [1;34mINFO [m]  [1m--------------------------------[ jar ]--------------------------------- [m
[ [1;34mINFO [m]
[ [1;34mINFO [m]  [1m--- [0;32mmaven-clean-plugin:3.1.0:clean [m [1m(default-clean) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m] Deleting /var/lib/jenkins/workspace/ecom-webservice-pipeline/target
[ [1;34mINFO [m]
[ [1;34mINFO [m]  [1m--- [0;32mmaven-resources-plugin:3.2.0:resources [m [1m(default-resources) [m @ [36mecom-webservice [0;1m --
- [m
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered resources.
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered properties files.
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard ▸ ecom-webservice-pipeline ▸ #3

```
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered resources.
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered properties files.
[ [1;34mINFO [m] Copying 1 resource
[ [1;34mINFO [m] Copying 0 resource
[ [1;34mINFO [m] The encoding used to copy filtered properties files have not been set. This means that the same encoding will
be used to copy filtered properties files as when copying other filtered resources. This might not be what you want! Run your
build with --debug to see which files might be affected. Read more at https://maven.apache.org/plugins/maven-resources-
plugin/examples/filtering-properties-files.html
[ [1;34mINFO [m]
[ [1;34mINFO [m]  [1m--- [0;32mmaven-compiler-plugin:3.5.1:compile [m [1m(default-compile) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m] Changes detected - recompiling the module!
[ [1;34mINFO [m] Compiling 6 source files to /var/lib/jenkins/workspace/ecom-webservice-pipeline/target/classes
[ [1;34mINFO [m]  [1m------------------------------------------------------------------------ [m
[ [1;34mINFO [m]  [1;32mBUILD SUCCESS [m
[ [1;34mINFO [m]  [1m------------------------------------------------------------------------ [m
[ [1;34mINFO [m] Total time:  3.414 s
[ [1;34mINFO [m] Finished at: 2022-01-12T17:22:17Z
[ [1;34mINFO [m]  [1m------------------------------------------------------------------------ [m
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Maven Test)
[Pipeline] echo
---------------- This is a compile phase ----------
[Pipeline] sh
+ mvn clean test
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1
(file:/usr/share/maven/lib/guice.jar) to method
java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard ▸ ecom-webservice-pipeline ▸ #3

```
 :: Spring Boot ::                (v2.4.1)

2022-01-12 17:22:24.793  INFO 72076 --- [           main] c.e.w.EcomWebserviceApplicationTests     : Starting
EcomWebserviceApplicationTests using Java 11.0.13 on ip-172-31-4-220 with PID 72076 (started by jenkins in
/var/lib/jenkins/workspace/ecom-webservice-pipeline)
2022-01-12 17:22:24.796  INFO 72076 --- [           main] c.e.w.EcomWebserviceApplicationTests     : No active profile set,
falling back to default profiles: default
2022-01-12 17:22:25.808  INFO 72076 --- [           main] o.s.s.concurrent.ThreadPoolTaskExecutor  : Initializing
ExecutorService 'applicationTaskExecutor'
2022-01-12 17:22:26.076  INFO 72076 --- [           main] c.e.w.EcomWebserviceApplicationTests     : Started
EcomWebserviceApplicationTests in 1.551 seconds (JVM running for 2.468)
[ [1;34mINFO [m] [1;32mTests run: [0;1;32m1 [m, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 2.27 s - in
com.ecomerce.webapp. [1mEcomWebserviceApplicationTests [m
2022-01-12 17:22:26.448  INFO 72076 --- [extShutdownHook] o.s.s.concurrent.ThreadPoolTaskExecutor  : Shutting down
ExecutorService 'applicationTaskExecutor'
[ [1;34mINFO [m]
[ [1;34mINFO [m] Results:
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1;32mTests run: 1, Failures: 0, Errors: 0, Skipped: 0 [m
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m------------------------------------------------------------------------ [m
[ [1;34mINFO [m] [1;32mBUILD SUCCESS [m
[ [1;34mINFO [m] [1m------------------------------------------------------------------------ [m
[ [1;34mINFO [m] Total time:  5.809 s
[ [1;34mINFO [m] Finished at: 2022-01-12T17:22:26Z
[ [1;34mINFO [m] [1m------------------------------------------------------------------------ [m
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Maven Build)
[Pipeline] echo
----------------- This is a build phase ----------
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard ▸ ecom-webservice-pipeline ▸ #3

```
----------------- This is a build phase ----------
[Pipeline] sh
+ mvn clean package -DskipTests
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1
(file:/usr/share/maven/lib/guice.jar) to method
java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[ [1;34mINFO [m] Scanning for projects...
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m----------------< [0;36mcom.ecomerce.webapp:ecom-webservice [0;1m >----------------- [m
[ [1;34mINFO [m] [1mBuilding ecom-webservice 0.0.1-SNAPSHOT [m
[ [1;34mINFO [m] [1m--------------------------------[ jar ]--------------------------------- [m
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-clean-plugin:3.1.0:clean [m [1m(default-clean) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m] Deleting /var/lib/jenkins/workspace/ecom-webservice-pipeline/target
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-resources-plugin:3.2.0:resources [m [1m(default-resources) [m @ [36mecom-webservice [0;1m --
- [m
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered resources.
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered properties files.
[ [1;34mINFO [m] Copying 1 resource
[ [1;34mINFO [m] Copying 0 resource
[ [1;34mINFO [m] The encoding used to copy filtered properties files have not been set. This means that the same encoding will
be used to copy filtered properties files as when copying other filtered resources. This might not be what you want! Run your
build with --debug to see which files might be affected. Read more at https://maven.apache.org/plugins/maven-resources-
plugin/examples/filtering-properties-files.html
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-compiler-plugin:3.5.1:compile [m [1m(default-compile) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m] Changes detected - recompiling the module!
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard › ecom-webservice-pipeline › #3

```
[com/ecomerce/webapp/EcomWebserviceApplicationTests-context.xml] does not exist
17:22:24.281 [main] DEBUG org.springframework.test.context.support.AbstractContextLoader - Did not detect default resource
location for test class [com.ecomerce.webapp.EcomWebserviceApplicationTests]: class path resource
[com/ecomerce/webapp/EcomWebserviceApplicationTestsContext.groovy] does not exist
17:22:24.281 [main] INFO org.springframework.test.context.support.AbstractContextLoader - Could not detect default resource
locations for test class [com.ecomerce.webapp.EcomWebserviceApplicationTests]: no resource found for suffixes {-context.xml,
Context.groovy}.
17:22:24.282 [main] INFO org.springframework.test.context.support.AnnotationConfigContextLoaderUtils - Could not detect default
configuration classes for test class [com.ecomerce.webapp.EcomWebserviceApplicationTests]: EcomWebserviceApplicationTests does
not declare any static, non-private, non-final, nested classes annotated with @Configuration.
17:22:24.321 [main] DEBUG org.springframework.test.context.support.ActiveProfilesUtils - Could not find an 'annotation declaring
class' for annotation type [org.springframework.test.context.ActiveProfiles] and class
[com.ecomerce.webapp.EcomWebserviceApplicationTests]
17:22:24.383 [main] DEBUG org.springframework.context.annotation.ClassPathScanningCandidateComponentProvider - Identified
candidate component class: file [/var/lib/jenkins/workspace/ecom-webservice-
pipeline/target/classes/com/ecomerce/webapp/EcomWebserviceApplication.class]
17:22:24.387 [main] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Found
@SpringBootConfiguration com.ecomerce.webapp.EcomWebserviceApplication for test class
com.ecomerce.webapp.EcomWebserviceApplicationTests
17:22:24.475 [main] DEBUG org.springframework.boot.test.context.SpringBootTestContextBootstrapper - @TestExecutionListeners is
not present for class [com.ecomerce.webapp.EcomWebserviceApplicationTests]: using defaults.
17:22:24.476 [main] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Loaded default
TestExecutionListener class names from location [META-INF/spring.factories]:
[org.springframework.boot.test.mock.mockito.MockitoTestExecutionListener,
org.springframework.boot.test.mock.mockito.ResetMocksTestExecutionListener,
org.springframework.boot.test.autoconfigure.restdocs.RestDocsTestExecutionListener,
org.springframework.boot.test.autoconfigure.web.client.MockRestServiceServerResetTestExecutionListener,
org.springframework.boot.test.autoconfigure.web.servlet.MockMvcPrintOnlyOnFailureTestExecutionListener,
org.springframework.boot.test.autoconfigure.web.servlet.WebDriverTestExecutionListener,
org.springframework.boot.test.autoconfigure.webservices.client.MockWebServiceServerTestExecutionListener,
org.springframework.test.context.web.ServletTestExecutionListener,
org.springframework.test.context.support.DirtiesContextBeforeModesTestExecutionListener,
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard › ecom-webservice-pipeline › #3

```
org.springframework.boot.test.autoconfigure.web.servlet.MockMvcPrintOnlyOnFailureTestExecutionListener,
org.springframework.boot.test.autoconfigure.web.servlet.WebDriverTestExecutionListener,
org.springframework.boot.test.autoconfigure.webservices.client.MockWebServiceServerTestExecutionListener,
org.springframework.test.context.web.ServletTestExecutionListener,
org.springframework.test.context.support.DirtiesContextBeforeModesTestExecutionListener,
org.springframework.test.context.support.DependencyInjectionTestExecutionListener,
org.springframework.test.context.support.DirtiesContextTestExecutionListener,
org.springframework.test.context.transaction.TransactionalTestExecutionListener,
org.springframework.test.context.jdbc.SqlScriptsTestExecutionListener,
org.springframework.test.context.event.EventPublishingTestExecutionListener]
17:22:24.485 [main] DEBUG org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Skipping candidate
TestExecutionListener [org.springframework.test.context.transaction.TransactionalTestExecutionListener] due to a missing
dependency. Specify custom listener classes or make the default listener classes and their required dependencies available.
Offending class: [org/springframework/transaction/interceptor/TransactionAttributeSource]
17:22:24.486 [main] DEBUG org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Skipping candidate
TestExecutionListener [org.springframework.test.context.jdbc.SqlScriptsTestExecutionListener] due to a missing dependency.
Specify custom listener classes or make the default listener classes and their required dependencies available. Offending class:
[org/springframework/transaction/interceptor/TransactionAttribute]
17:22:24.486 [main] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Using TestExecutionListeners:
[org.springframework.test.context.web.ServletTestExecutionListener@1ef6d34c,
org.springframework.test.context.support.DirtiesContextBeforeModesTestExecutionListener@46271dd6,
org.springframework.boot.test.mock.mockito.MockitoTestExecutionListener@11bb571c,
org.springframework.boot.test.autoconfigure.SpringBootDependencyInjectionTestExecutionListener@7c51f34b,
org.springframework.test.context.support.DirtiesContextTestExecutionListener@5495333e,
org.springframework.test.context.event.EventPublishingTestExecutionListener@2a225dd7,
org.springframework.boot.test.mock.mockito.ResetMocksTestExecutionListener@61eaec38,
org.springframework.boot.test.autoconfigure.restdocs.RestDocsTestExecutionListener@125290e5,
org.springframework.boot.test.autoconfigure.web.client.MockRestServiceServerResetTestExecutionListener@6fa34d52,
org.springframework.boot.test.autoconfigure.web.servlet.MockMvcPrintOnlyOnFailureTestExecutionListener@57576994,
org.springframework.boot.test.autoconfigure.web.servlet.WebDriverTestExecutionListener@616ac46a,
org.springframework.boot.test.autoconfigure.webservices.client.MockWebServiceServerTestExecutionListener@67b9b51a]
17:22:24.489 [main] DEBUG org.springframework.test.context.support.AbstractDirtiesContextTestExecutionListener - Before test
class: context [DefaultTestContext@30c8681 testClass = EcomWebserviceApplicationTests, testInstance = [null], testMethod =
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Dashboard ▸ ecom-webservice-pipeline ▸ #3

```
webservice [0;1m --- [m
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered resources.
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered properties files.
[ [1;34mINFO [m] skip non existing resourceDirectory /var/lib/jenkins/workspace/ecom-webservice-pipeline/src/test/resources
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-compiler-plugin:3.5.1:testCompile [m [1m(default-testCompile) [m @ [36mecom-webservice [0;1m
--- [m
[ [1;34mINFO [m] Changes detected - recompiling the module!
[ [1;34mINFO [m] Compiling 1 source file to /var/lib/jenkins/workspace/ecom-webservice-pipeline/target/test-classes
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-surefire-plugin:2.22.2:test [m [1m(default-test) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m]
[ [1;34mINFO [m] -------------------------------------------------------
[ [1;34mINFO [m]  T E S T S
[ [1;34mINFO [m] -------------------------------------------------------
[ [1;34mINFO [m] Running com.ecomerce.webapp. [1mEcomWebserviceApplicationTests [m
17:22:24.206 [main] DEBUG org.springframework.test.context.BootstrapUtils - Instantiating CacheAwareContextLoaderDelegate from
class [org.springframework.test.context.cache.DefaultCacheAwareContextLoaderDelegate]
17:22:24.217 [main] DEBUG org.springframework.test.context.BootstrapUtils - Instantiating BootstrapContext using constructor
[public
org.springframework.test.context.support.DefaultBootstrapContext(java.lang.Class,org.springframework.test.context.CacheAwareCont
extLoaderDelegate)]
17:22:24.265 [main] DEBUG org.springframework.test.context.BootstrapUtils - Instantiating TestContextBootstrapper for test class
[com.ecomerce.webapp.EcomWebserviceApplicationTests] from class
[org.springframework.boot.test.context.SpringBootTestContextBootstrapper]
17:22:24.276 [main] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper - Neither @ContextConfiguration
nor @ContextHierarchy found for test class [com.ecomerce.webapp.EcomWebserviceApplicationTests], using SpringBootContextLoader
17:22:24.280 [main] DEBUG org.springframework.test.context.support.AbstractContextLoader - Did not detect default resource
location for test class [com.ecomerce.webapp.EcomWebserviceApplicationTests]: class path resource
[com/ecomerce/webapp/EcomWebserviceApplicationTests-context.xml] does not exist
17:22:24.281 [main] DEBUG org.springframework.test.context.support.AbstractContextLoader - Did not detect default resource
location for test class [com.ecomerce.webapp.EcomWebserviceApplicationTests]: class path resource
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard ▸ ecom-webservice-pipeline ▸ #3

```
org.springframework.boot.test.autoconfigure.webservices.client.MockWebServiceServerTestExecutionListener@67b9b51a]
17:22:24.489 [main] DEBUG org.springframework.test.context.support.AbstractDirtiesContextTestExecutionListener - Before test
class: context [DefaultTestContext@30c8681 testClass = EcomWebserviceApplicationTests, testInstance = [null], testMethod =
[null], testException = [null], mergedContextConfiguration = [WebMergedContextConfiguration@5cdec700 testClass =
EcomWebserviceApplicationTests, locations = '{}', classes = '{class com.ecomerce.webapp.EcomWebserviceApplication}',
contextInitializerClasses = '[]', activeProfiles = '{}', propertySourceLocations = '{}', propertySourceProperties =
'{org.springframework.boot.test.context.SpringBootTestContextBootstrapper=true}', contextCustomizers =
set[org.springframework.boot.test.context.filter.ExcludeFilterContextCustomizer@2638011,
org.springframework.boot.test.json.DuplicateJsonObjectContextCustomizerFactory$DuplicateJsonObjectContextCustomizer@313b2ea6,
org.springframework.boot.test.mock.mockito.MockitoContextCustomizer@0,
org.springframework.boot.test.web.client.TestRestTemplateContextCustomizer@4470f8a6,
org.springframework.boot.test.autoconfigure.actuate.metrics.MetricsExportContextCustomizerFactory$DisableMetricExportContextCust
omizer@568ff82, org.springframework.boot.test.autoconfigure.properties.PropertyMappingContextCustomizer@0,
org.springframework.boot.test.autoconfigure.web.servlet.WebDriverContextCustomizerFactory$Customizer@1fb700ee,
org.springframework.boot.test.context.SpringBootTestArgs@1,
org.springframework.boot.test.context.SpringBootTestWebEnvironment@7791a895], resourceBasePath = 'src/main/webapp',
contextLoader = 'org.springframework.boot.test.context.SpringBootContextLoader', parent = [null]], attributes =
map['org.springframework.test.context.web.ServletTestExecutionListener.activateListener' -> true]], class annotated with
@DirtiesContext [false] with mode [null].
17:22:24.518 [main] DEBUG org.springframework.test.context.support.TestPropertySourceUtils - Adding inlined properties to
environment: {spring.jmx.enabled=false, org.springframework.boot.test.context.SpringBootTestContextBootstrapper=true}

  .   ____          _            __ _ _
 /\\ / ___'_ __ _ _(_)_ __  __ _ \ \ \ \
( ( )\___ | '_ | '_| | '_ \/ _` | \ \ \ \
 \\/  ___)| |_)| | | | | || (_| |  ) ) ) )
  '  |____| .__|_| |_|_| |_\__, | / / / /
 =========|_|==============|___/=/_/_/_/
 :: Spring Boot ::                (v2.4.1)

2022-01-12 17:22:24.793  INFO 72076 --- [           main] c.e.w.EcomWebserviceApplicationTests     : Starting
EcomWebserviceApplicationTests using Java 11.0.13 on ip-172-31-4-220 with PID 72076 (started by jenkins in
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard ▸ ecom-webservice-pipeline ▸ #3

```
plugin/examples/filtering-properties-files.html
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-compiler-plugin:3.5.1:compile [m [1m(default-compile) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m] Changes detected - recompiling the module!
[ [1;34mINFO [m] Compiling 6 source files to /var/lib/jenkins/workspace/ecom-webservice-pipeline/target/classes
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-resources-plugin:3.2.0:testResources [m [1m(default-testResources) [m @ [36mecom-
webservice [0;1m --- [m
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered resources.
[ [1;34mINFO [m] Using 'UTF-8' encoding to copy filtered properties files.
[ [1;34mINFO [m] skip non existing resourceDirectory /var/lib/jenkins/workspace/ecom-webservice-pipeline/src/test/resources
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-compiler-plugin:3.5.1:testCompile [m [1m(default-testCompile) [m @ [36mecom-webservice [0;1m
--- [m
[ [1;34mINFO [m] Changes detected - recompiling the module!
[ [1;34mINFO [m] Compiling 1 source file to /var/lib/jenkins/workspace/ecom-webservice-pipeline/target/test-classes
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-surefire-plugin:2.22.2:test [m [1m(default-test) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m] Tests are skipped.
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmaven-jar-plugin:3.2.0:jar [m [1m(default-jar) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m] Building jar: /var/lib/jenkins/workspace/ecom-webservice-pipeline/target/ecom-webservice-0.0.1-SNAPSHOT.jar
[ [1;34mINFO [m]
[ [1;34mINFO [m] [1m--- [0;32mmspring-boot-maven-plugin:2.4.1:repackage [m [1m(repackage) [m @ [36mecom-webservice [0;1m --- [m
[ [1;34mINFO [m] Replacing main artifact with repackaged archive
[ [1;34mINFO [m] [1m------------------------------------------------------------------------ [m
[ [1;34mINFO [m] [1;32mBUILD SUCCESS [m
[ [1;34mINFO [m] [1m------------------------------------------------------------------------ [m
[ [1;34mINFO [m] Total time:  2.573 s
[ [1;34mINFO [m] Finished at: 2022-01-12T17:22:30Z
[ [1;34mINFO [m] [1m------------------------------------------------------------------------ [m
[Pipeline] }
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

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Not Secure | 13.127.228.16:8080/job/ecom-webservice-pipeline/3/console

Dashboard ▸ ecom-webservice-pipeline ▸ #3

```
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Docker Build)
[Pipeline] echo
----------------- This is a build docker image phase ----------
[Pipeline] sh
+ docker image build -t ecom-webservice .
Sending build context to Docker daemon  17.34MB

Step 1/4 : FROM openjdk:8-jdk
 ---> e24ac15e052e
Step 2/4 : COPY ./target/ecom-webservice-0.0.1-SNAPSHOT.jar ecom-webservice-0.0.1-SNAPSHOT.jar
 ---> 4cb1e54c2af8
Step 3/4 : CMD ["java" ,"-jar","ecom-webservice-0.0.1-SNAPSHOT.jar"]
 ---> Running in 9b4e6573bf77
Removing intermediate container 9b4e6573bf77
 ---> 35cf300e51e3
Step 4/4 : RUN echo "jenkins ALL=(ALL) NOPASSWD: ALL" >> /etc/sudoers
 ---> Running in fff2132c445d
Removing intermediate container fff2132c445d
 ---> d590bfacd801
Successfully built d590bfacd801
Successfully tagged ecom-webservice:latest
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Docker Deploy)
[Pipeline] echo
----------------- This is a docker deployment phase ----------
[Pipeline] sh
+ docker ps -a
```

Screenshot.pdf | coding.docx | ecom-webservice....zip | docker-setup-ma....zip | phase4-bootstra....zip | Show all

Deployed docker container can be viewed

WebApplication can be accessed by port 8081 as shown below:

/greeting

/hello

/goodluck

Workspace View