

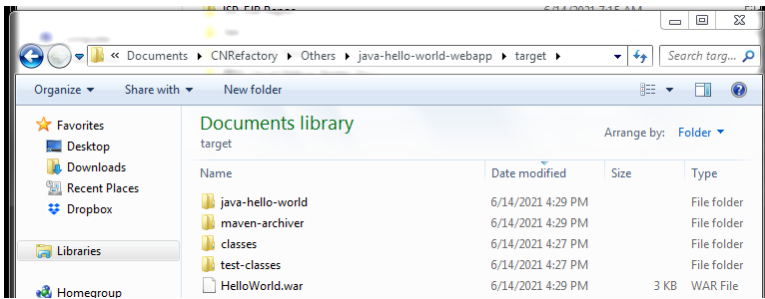
The username and password are set to admin/Admin#007 for the Wildfly server

```
MINGW64/c/Users/Elite8300/Documents/CNRefactory/Wildfly with Docker
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory
$ cd 'Wildfly with Docker'
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory/Wildfly with Docker
$ ls
Dockerfile ROOT.war User/ docker-compose.yml wildfly-23.0.2.Final.tar
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory/Wildfly with Docker
$ docker-compose up
Starting user ... done
Attaching to user
=====
user      |JBoss Bootstrap Environment
user      |JBoss HOME: /opt/jboss/wildfly
user      |JAVA: /usr/lib/jvm/java/bin/java
user      |JAVA_OPTS: -server -Xms64m -Xmx512m -XX:MetaspaceSize=96M -XX:MaxMe
user      |taspacesize=256m -Djava.net.preferIPv4Stack=true -Djboss.modules.system.pkgs=org
user      |.jboss.byteman -Djava.awt.headless=true --add-exports=java.base/sun.nio.ch=ALL-
user      |UNNAMED --add-exports=jdk.unsupported/sun.misc=ALL-UNNAMED --add-exports=jdk.uns
user      |upported/sun.reflect=ALL-UNNAMED
=====
user      |
user      |21:30:48.894 INFO [org.jboss.modules] (main) JBoss Modules version 1.
user      |11.0.Final
user      |21:30:50.232 INFO [org.jboss.msc] (main) JBoss MSC version 1.4.12.Fin
user      |al
user      |21:30:50.262 INFO [org.jboss.threads] (main) JBoss Threads version 2.
user      |4.0.Final
user      |21:30:50.550 INFO [org.jboss.as] (MSC service thread 1-2) WFLYSRV0049
user      |: WildFly Full 23.0.2.Final (WildFly Core 15.0.1.Final) starting
user      |21:30:52.916 INFO [org.wildfly.security] (ServerService Thread Pool --
user      |- 28) ELV000001: WildFly Elytron version 1.15.3.Final
user      |21:30:53.653 INFO [org.jboss.as.controller.management-deprecated] (Se
user      |rverService Thread Pool -- 5) WFLYCTL0083: Extension 'security' is deprecate
user      |d and may not be supported in future versions
user      |21:30:54.606 INFO [org.jboss.as.controller.management-deprecated] (Co
user      |ntroller Boot Thread) WFLYCTL0028: Attribute 'security-realm' in the resource at
user      |address '/subsystem=undertow/server=default-server/https-listener=http
user      |s' is deprecated, and may be removed in a future version. See the attribute desc
user      |ription in the output of the read-resource-description operation to learn more a
user      |bout the deprecation.
user      |21:30:55.000 INFO [org.jboss.as.server] (Controller Boot Thread) WFLY
user      |SRV0039: Creating http management service using socket-binding (management-ht
user      |tp)
user      |21:30:55.038 INFO [org.xnio] (MSC service thread 1-2) XNIO version 3.
user      |8.4.Final
user      |21:30:55.080 INFO [org.xnio.nio] (MSC service thread 1-2) XNIO NIO I
user      |mplementation Version 3.8.4.Final
user      |21:30:55.315 INFO [org.jboss.as.naming] (ServerService Thread Pool --
user      |66) WFLYNAM0001: Activating Naming Subsystem
user      |21:30:55.322 INFO [org.jboss.as.clustering.infinispan] (ServerService
user      |Thread Pool -- 53) WFLYCLINF0001: Activating Infinispan subsystem.
user      |21:30:55.317 INFO [org.jboss.as.security] (ServerService Thread Pool
user      |72) WFLYSEC0002: Activating Security Subsystem
user      |21:30:55.374 INFO [org.wildfly.extension.microprofile.config.smallrye
user      |.private] (ServerService Thread Pool -- 63) WFLYCONF0001: Activating WildFly Mi
user      |croProfile Config Subsystem
user      |21:30:55.291 WARN [org.jboss.as.txn] (ServerService Thread Pool -- 74)
=====
MINGW64/c/Users/Elite8300/Documents/CNRefactory/Wildfly with Docker
d 1-1) WFLYUT0006: Undertow HTTP listener default listening on 0.0.0.0:8080
user      |21:30:57.972 INFO [org.jboss.as.ejb31] (MSC service thread 1-1) WFLVEJ
user      |B00493: DataSources Enterprise Beans subsystem suspension complete
user      |21:30:58.252 INFO [org.jboss.as.connector.subsystems.datasources] (MS
user      |C service thread 1-1) WFLYJCA0001: Bound data source [java:jboss/datasources/Exa
user      |mpleDS1]
user      |21:30:58.377 INFO [org.jboss.as.patching] (MSC service thread 1-2) WFL
user      |YPM0050: WildFly Full cumulative patch ID is: base, one-off patches include: n
user      |one
user      |21:30:58.449 WARN [org.jboss.as.domain.management.security] (MSC serv
user      |ice thread 1-1) WFLYDM0011: Keystore /opt/jboss/wildfly/standalone/configuration
user      |/application.keystore not found. It will be auto generated on first use with a s
user      |elf signed certificate for host localhost
user      |21:30:58.839 INFO [org.jboss.as.server.deployment.scanner] (MSC servi
user      |ce thread 1-2) WFLVDS0013: Started FileSystemDeploymentService for directory /o
user      |pt/jboss/wildfly/standalone/deployments
user      |21:30:58.565 INFO [org.wildfly.extension.undertow] (MSC service threa
user      |d 1-2) WFLYUW0001: Undertow HTTP listener https listening on 0.0.0.0:8443
user      |21:30:58.728 INFO [org.jboss.us.common.management] (MSC service threa
user      |d 1-2) JBUS022052: Starting JBossWS 5.4.3.Final (Apache CXF 3.3.10)
user      |21:30:59.032 INFO [org.jboss.as.server] (Controller Boot Thread) WFLY
user      |SRV0212: Starting server
user      |21:30:59.040 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0025
user      |: WildFly Full 23.0.2.Final (WildFly Core 15.0.1.Final) started in 11074ms - Sta
user      |rted 319 of 558 services (344 services are lazy, passive or on-demand)
user      |21:32:05.740 INFO [org.jboss.as.server.deployment] (Controller Boot Thread) WFLVSRV0060
user      |: Http management interface listening on http://0.0.0.0:9999/management
user      |21:30:59.048 INFO [org.jboss.as] (Controller Boot Thread) WFLYSRV0051
user      |: Admin console listening on http://0.0.0.0:9990/
user      |21:32:06.692 INFO [org.jboss.as.repository] (External Management Reque
user      |st Threads -- 1) WFLYDR0001: Content added at location /opt/jboss/wildfly/stand
user      |alone/data/content/e3/3ca3efe96d767c3ff3fe78ce02dfc7f8a99e8/content
user      |21:32:05.740 INFO [org.jboss.as.server.deployment] (MSC service threa
user      |d 1-1) WFLVSD0002: Starting deployment of 'java-hello-world.war' (runtime-name:
user      |'java-hello-world.war')
user      |21:32:08.395 INFO [org.infinispan.CONTAINER] (ServerService Thread Po
user      |ol -- 78) ISPN000128: Infinispan version: Infinispan 'Corona Extra' 11.0.9.Final
user      |21:32:08.518 INFO [org.infinispan.CONFIG] (MSC service thread 1-2) IS
user      |PN000152: Passivation configured without an eviction policy being selected. Only
user      |manually evicted entities will be passivated.
user      |21:32:08.527 INFO [org.infinispan.CONFIG] (MSC service thread 1-2) IS
user      |PN000152: Passivation configured without an eviction policy being selected. Only
user      |manually evicted entities will be passivated.
user      |21:32:08.522 INFO [org.infinispan.PERSISTENCE] (ServerService Thread
user      |Pool -- 78) ISPN000556: Starting user marshaller 'org.wildfly.clustering.infinis
user      |pan.spi.marshalling.InfinispanProtocolStreamMarshaller'
user      |21:32:09.223 INFO [org.jboss.as.clustering.infinispan] (ServerService
user      |Thread Pool -- 78) WFLYCLINF0002: Started http remoting connector cache from ej
user      |b container
user      |21:32:09.506 INFO [org.wildfly.extension.undertow] (ServerService Thre
user      |ad Pool -- 78) WFLYUT0021: Registered web context: '/java-hello-world' for serv
user      |er default-server
user      |21:32:09.943 INFO [org.jboss.as.server] (External Management Request
user      |Threads -- 1) WFLYSRV0010: Deployed 'java-hello-world.war' (runtime-name: 'java
user      |-hello-world.war')
user      |21:30:59.127 INFO [org.jboss.as.server.deployment] (MSC service threa
user      |d 1-1) WFLVSRV0027: Starting deployment of 'SayHello.war' (runtime-name: 'SayHel
user      |lo.war')
user      |21:30:59.679 INFO [org.wildfly.extension.undertow] (ServerService Thre
user      |ad Pool -- 78) WFLYUW0021: Registered web context: '/SayHello' for server 'defa
user      |ult-server'
user      |21:30:59.744 INFO [org.jboss.as.server] (External Management Request
user      |Threads -- 1) WFLYSRV0010: Deployed 'SayHello.war' (runtime-name: 'SayHello.wa
user      |r')
user      |21:39:00.182 INFO [org.jboss.as.server.deployment] (MSC service threa
user      |d 1-1) WFLVSRV0027: Starting deployment of 'HelloWorld.war' (runtime-name: 'Hell
user      |oWorld.war')
user      |21:39:00.542 INFO [org.wildfly.extension.undertow] (ServerService Thr
user      |ead Pool -- 82) WFLYUW0021: Registered web context: '/HelloWorld' for server 'de
user      |fault-server'
```

Then run the **\$ docker-compose up** command to start the Jboss Wildfly application server

```
MINGW64/c/Users/Elite8300/Documents/CNRefactory/Wildfly with Docker
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory
$ cd 'Wildfly with Docker'
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory/Wildfly with Docker
$ ls
Dockerfile ROOT.war User/ docker-compose.yml wildfly-23.0.2.Final.tar
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory/Wildfly with Docker
$ docker-compose up
Starting user ... done
Attaching to user
=====
user      |JBoss Bootstrap Environment
user      |JBoss HOME: /opt/jboss/wildfly
user      |JAVA: /usr/lib/jvm/java/bin/java
user      |JAVA_OPTS: -server -Xms64m -Xmx512m -XX:MetaspaceSize=96M -XX:MaxMe
user      |taspacesize=256m -Djava.net.preferIPv4Stack=true -Djboss.modules.system.pkgs=org
user      |.jboss.byteman -Djava.awt.headless=true --add-exports=java.base/sun.nio.ch=ALL-
user      |UNNAMED --add-exports=jdk.unsupported/sun.misc=ALL-UNNAMED --add-exports=jdk.uns
user      |upported/sun.reflect=ALL-UNNAMED
=====
user      |
user      |21:30:48.894 INFO [org.jboss.modules] (main) JBoss Modules version 1.
user      |11.0.Final
user      |21:30:50.232 INFO [org.jboss.msc] (main) JBoss MSC version 1.4.12.Fin
user      |al
user      |21:30:50.262 INFO [org.jboss.threads] (main) JBoss Threads version 2.
user      |4.0.Final
user      |21:30:50.550 INFO [org.jboss.as] (MSC service thread 1-2) WFLYSRV0049
user      |: WildFly Full 23.0.2.Final (WildFly Core 15.0.1.Final) starting
user      |21:30:52.916 INFO [org.wildfly.security] (ServerService Thread Pool --
user      |- 28) ELV000001: WildFly Elytron version 1.15.3.Final
user      |21:30:53.653 INFO [org.jboss.as.controller.management-deprecated] (Se
user      |rverService Thread Pool -- 5) WFLYCTL0083: Extension 'security' is deprecate
user      |d and may not be supported in future versions
user      |21:30:54.606 INFO [org.jboss.as.controller.management-deprecated] (Co
user      |ntroller Boot Thread) WFLYCTL0028: Attribute 'security-realm' in the resource at
user      |address '/subsystem=undertow/server=default-server/https-listener=http
user      |s' is deprecated, and may be removed in a future version. See the attribute desc
user      |ription in the output of the read-resource-description operation to learn more a
user      |bout the deprecation.
user      |21:30:55.000 INFO [org.jboss.as.server] (Controller Boot Thread) WFLY
user      |SRV0039: Creating http management service using socket-binding (management-ht
user      |tp)
user      |21:30:55.038 INFO [org.xnio] (MSC service thread 1-2) XNIO version 3.
user      |8.4.Final
user      |21:30:55.080 INFO [org.xnio.nio] (MSC service thread 1-2) XNIO NIO I
user      |mplementation Version 3.8.4.Final
user      |21:30:55.315 INFO [org.jboss.as.naming] (ServerService Thread Pool --
user      |66) WFLYNAM0001: Activating Naming Subsystem
user      |21:30:55.322 INFO [org.jboss.as.clustering.infinispan] (ServerService
user      |Thread Pool -- 53) WFLYCLINF0001: Activating Infinispan subsystem.
user      |21:30:55.317 INFO [org.jboss.as.security] (ServerService Thread Pool
user      |72) WFLYSEC0002: Activating Security Subsystem
user      |21:30:55.374 INFO [org.wildfly.extension.microprofile.config.smallrye
user      |.private] (ServerService Thread Pool -- 63) WFLYCONF0001: Activating WildFly Mi
user      |croProfile Config Subsystem
user      |21:30:55.291 WARN [org.jboss.as.txn] (ServerService Thread Pool -- 74)
=====
MINGW64/c/Users/Elite8300/Documents/CNRefactory/Wildfly with Docker
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory
$ cd 'Wildfly with Docker'
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory/Wildfly with Docker
$ ls
Dockerfile ROOT.war User/ docker-compose.yml wildfly-23.0.2.Final.tar
Elite8300@Elite8300-PC MINGW64 ~/Documents/CNRefactory/Wildfly with Docker
$ docker-compose up
Starting user ... done
Attaching to user
=====
user      |JBoss Bootstrap Environment
user      |JBoss HOME: /opt/jboss/wildfly
user      |JAVA: /usr/lib/jvm/java/bin/java
user      |JAVA_OPTS: -server -Xms64m -Xmx512m -XX:MetaspaceSize=96M -XX:MaxMe
user      |taspacesize=256m -Djava.net.preferIPv4Stack=true -Djboss.modules.system.pkgs=org
user      |.jboss.byteman -Djava.awt.headless=true --add-exports=java.base/sun.nio.ch=ALL-
user      |UNNAMED --add-exports=jdk.unsupported/sun.misc=ALL-UNNAMED --add-exports=jdk.uns
user      |upported/sun.reflect=ALL-UNNAMED
=====
user      |
user      |21:30:48.894 INFO [org.jboss.modules] (main) JBoss Modules version 1.
user      |11.0.Final
user      |21:30:50.232 INFO [org.jboss.msc] (main) JBoss MSC version 1.4.12.Fin
user      |al
user      |21:30:50.262 INFO [org.jboss.threads] (main) JBoss Threads version 2.
user      |4.0.Final
user      |21:30:50.550 INFO [org.jboss.as] (MSC service thread 1-2) WFLYSRV0049
user      |: WildFly Full 23.0.2.Final (WildFly Core 15.0.1.Final) starting
user      |21:30:52.916 INFO [org.wildfly.security] (ServerService Thread Pool --
user      |- 28) ELV000001: WildFly Elytron version 1.15.3.Final
user      |21:30:53.653 INFO [org.jboss.as.controller.management-deprecated] (Se
user      |rverService Thread Pool -- 5) WFLYCTL0083: Extension 'security' is deprecate
user      |d and may not be supported in future versions
user      |21:30:54.606 INFO [org.jboss.as.controller.management-deprecated] (Co
user      |ntroller Boot Thread) WFLYCTL0028: Attribute 'security-realm' in the resource at
user      |address '/subsystem=undertow/server=default-server/https-listener=http
user      |s' is deprecated, and may be removed in a future version. See the attribute desc
user      |ription in the output of the read-resource-description operation to learn more a
user      |bout the deprecation.
user      |21:30:55.000 INFO [org.jboss.as.server] (Controller Boot Thread) WFLY
user      |SRV0039: Creating http management service using socket-binding (management-ht
user      |tp)
user      |21:30:55.038 INFO [org.xnio] (MSC service thread 1-2) XNIO version 3.
user      |8.4.Final
user      |21:30:55.080 INFO [org.xnio.nio] (MSC service thread 1-2) XNIO NIO I
user      |mplementation Version 3.8.4.Final
user      |21:30:55.315 INFO [org.jboss.as.naming] (ServerService Thread Pool --
user      |66) WFLYNAM0001: Activating Naming Subsystem
user      |21:30:55.322 INFO [org.jboss.as.clustering.infinispan] (ServerService
user      |Thread Pool -- 53) WFLYCLINF0001: Activating Infinispan subsystem.
user      |21:30:55.317 INFO [org.jboss.as.security] (ServerService Thread Pool
user      |72) WFLYSEC0002: Activating Security Subsystem
user      |21:30:55.374 INFO [org.wildfly.extension.microprofile.config.smallrye
user      |.private] (ServerService Thread Pool -- 63) WFLYCONF0001: Activating WildFly Mi
user      |croProfile Config Subsystem
user      |21:30:55.291 WARN [org.jboss.as.txn] (ServerService Thread Pool -- 74)
=====
```

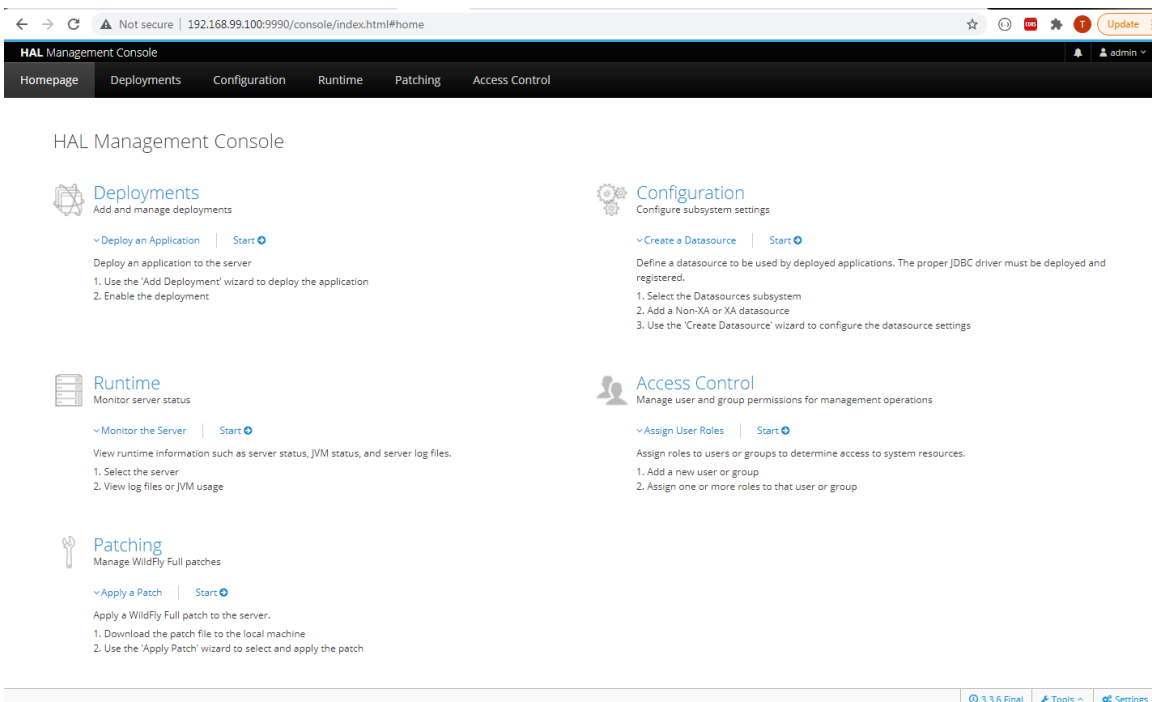
Run **\$ mvn compile** and **\$ mvn package** commands to create the **.war** file, then change into the target directory

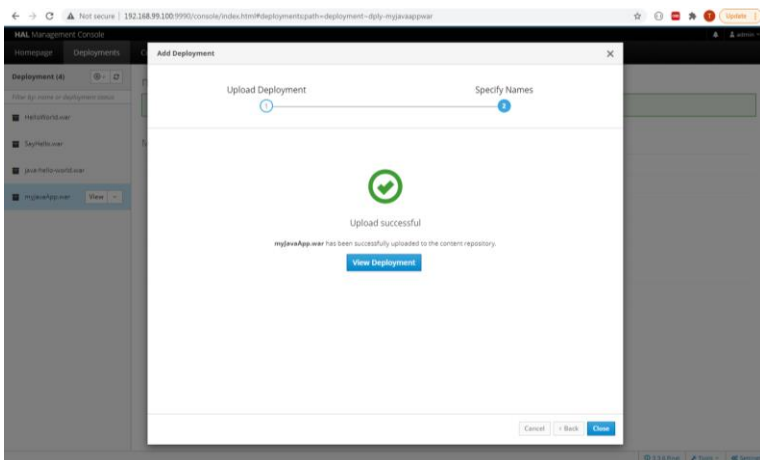
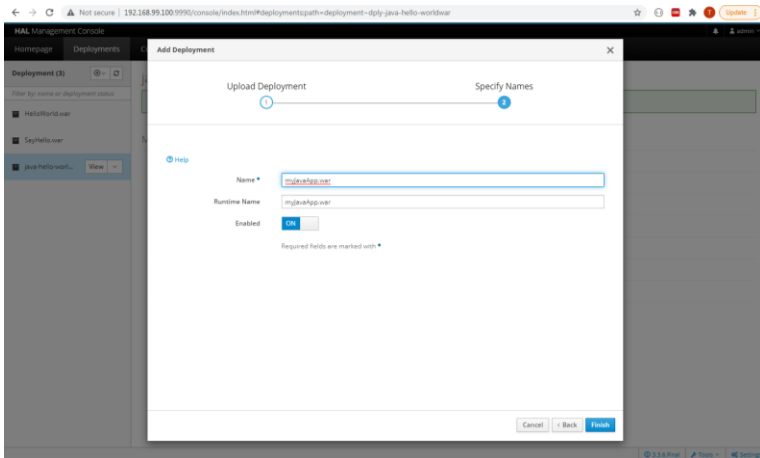
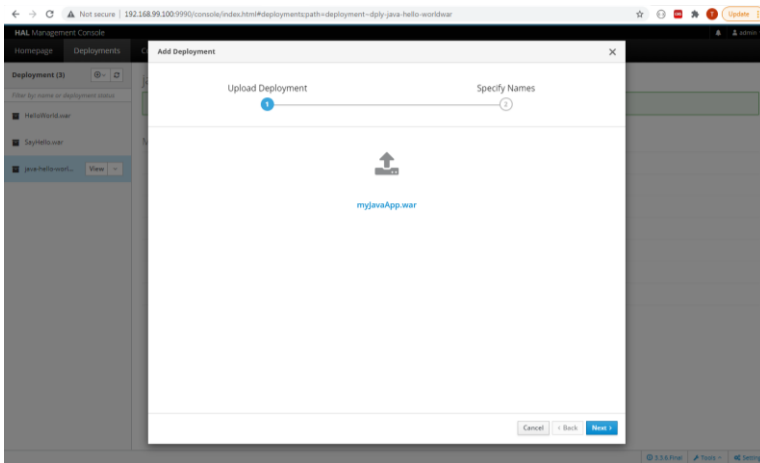
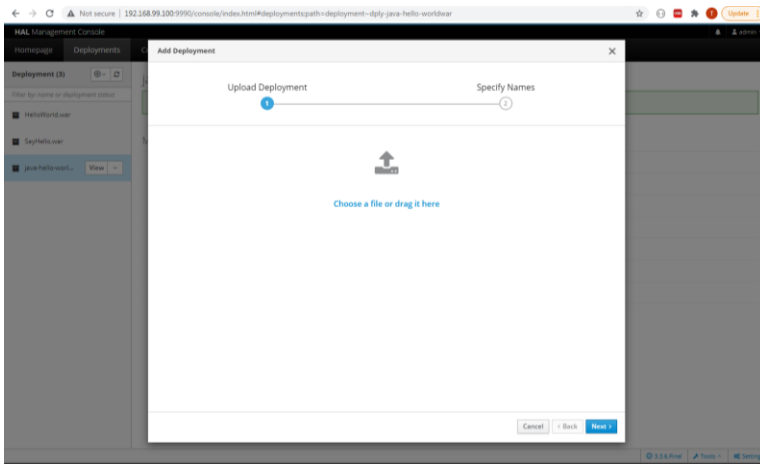


Now start to deploy the .war file(s) into Wildfly



Access the Wildfly server at localhost:8080 or 192.168.99.100:8080 via the Docker machine IP as above





HAL Management Console

Deployment (4)

myJavaApp.war

The deployment **myJavaApp.war** is enabled and active. [Disable](#)

Main Attributes

Name:	myJavaApp.war
Runtime Name:	myJavaApp.war
Context Root:	/myJavaApp
Enabled, Managed, Exploded:	✓ ✓ ✗
Status:	OK
Last enabled at:	6/14/21, 5:17 PM
Last disabled at:	n/a

192.168.99.100:8080/myJavaApp/

Hello World ?

192.168.99.100:8080/java-hello-world/

Hello World ?

192.168.99.100:8080/SayHello/

Hello World ?

192.168.99.100:8080/HelloWorld/

Hello World ?

++++

STS4Workspace - java-hello-world-webapp/docker-compose.yml - Spring Tool Suite 4

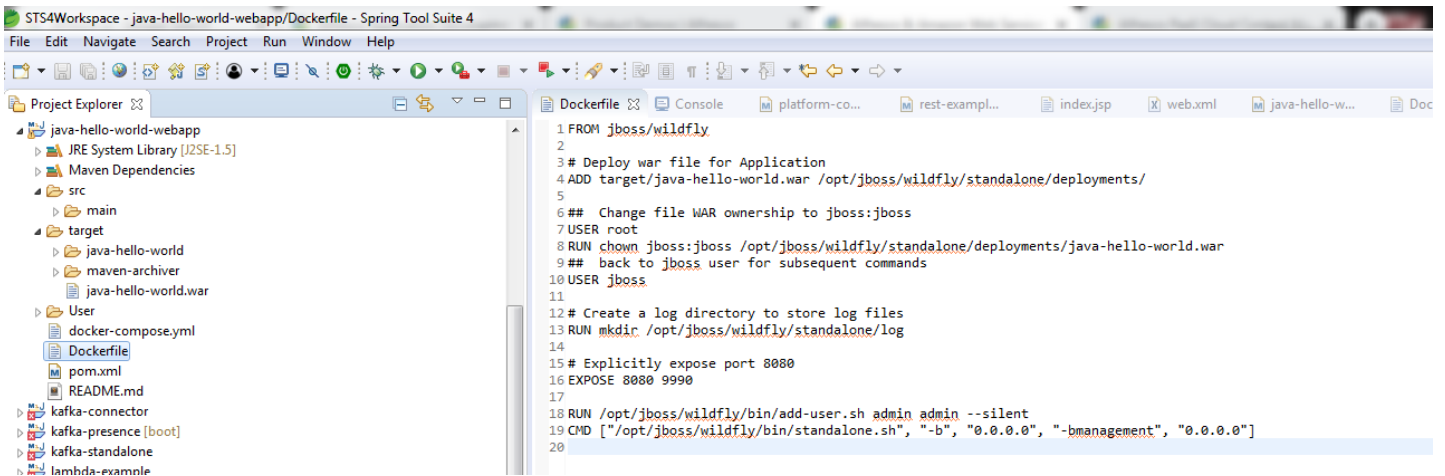
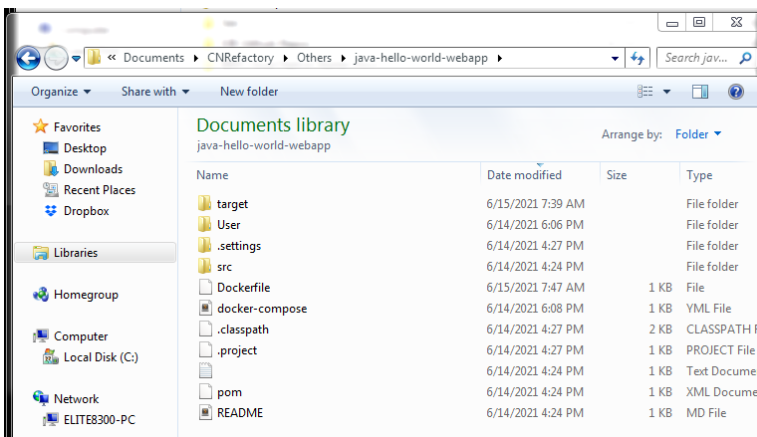
Project Explorer

- cloud-connector
- config-client-people-svc [boot]
- config-eureka-feign-client-account-svc
- config-eureka-mongodb-client-person-svc
- config-eureka-ribbon-svc
- config-eureka-zuul-svc
- config-server-svc
- course-api-svc [boot]
- course-api-svc-1 [boot]
- customer-service-app
- eureka-service-grp
- feign-service-grp [boot]
- java-hello-world-webapp
 - JRE System Library [J2SE-1.5]
 - Maven Dependencies
 - src
 - main
 - webapp

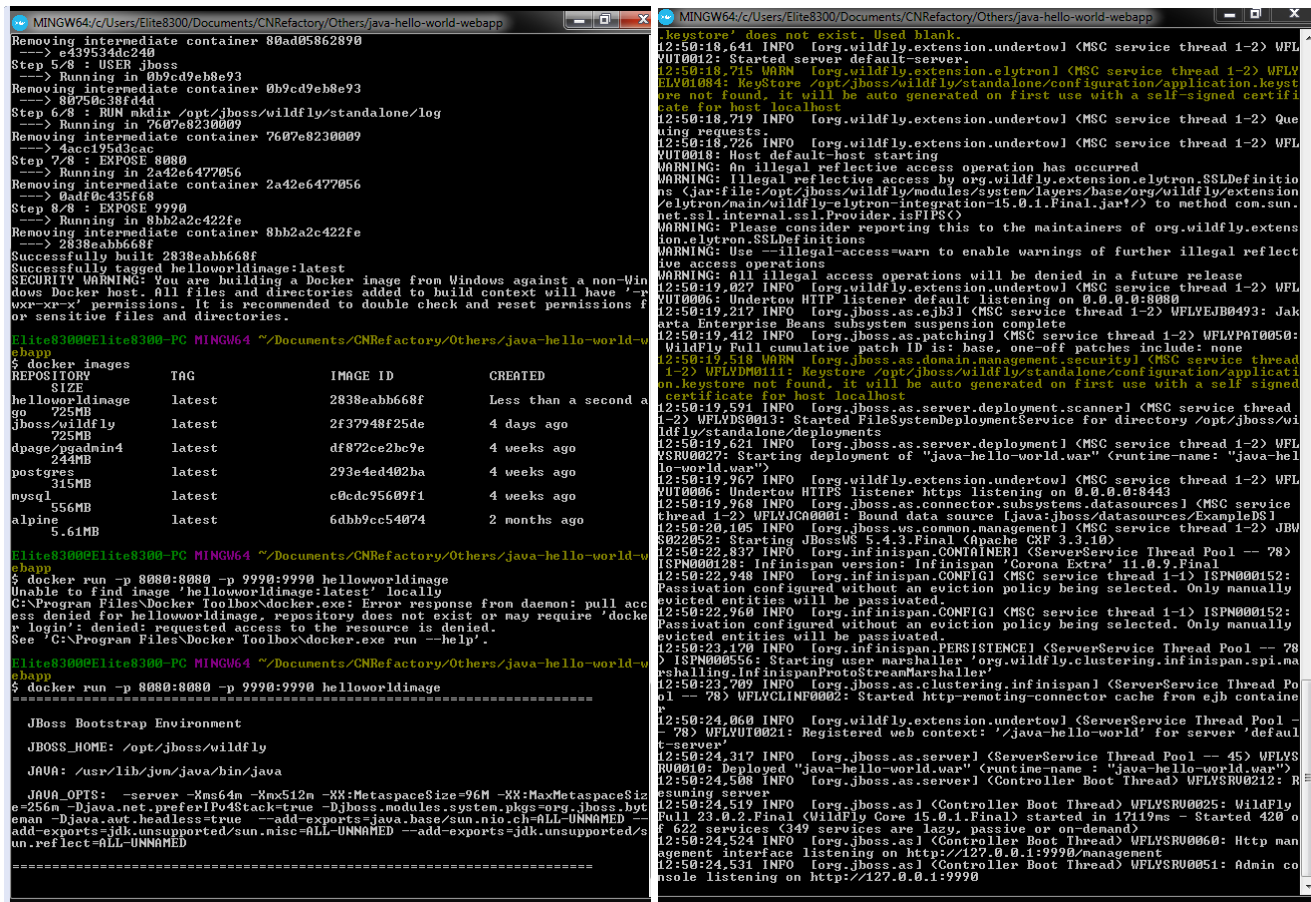
Console

```
1 version: "3"
2 services:
3   user:
4     image: jboss/wildfly
5     ports:
6       - 8080:8080
7       - 8000:8000
8       - 9990:9990
9     volumes:
10      - ./User/target:/opt/jboss/wildfly/standalone/deployments/
11     container_name: "user"
12     restart: always
13     command: >
14       bash -c "cp target/myJavaApp.war /opt/jboss/wildfly/standalone/deployments/
15       && /opt/jboss/wildfly/bin/add-user.sh admin Admin#007 --silent
16       && /opt/jboss/wildfly/bin/standalone.sh -b 0.0.0.0 -bmanagement 0.0.0.0"
17
```

This docker-compose file also creates the JBoss Wildfly image, you can then select and deploy the .war inside it.



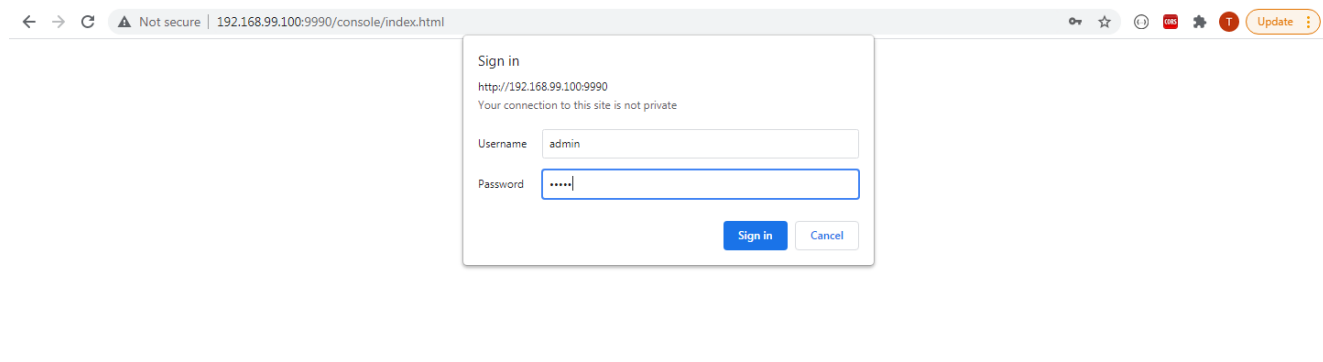
Use the Dockerfile to create and run an image to deploy JBoss Wildfly and deploy the application .war file automatically



Run the newly created .war file docker image that already has JBoss running the .war file automatically.



Check the running application on localhost:8080/<app-war-name>




Access the admin console on localhost:9990, you need to log in with the admin username and password as admin/admin

← → ↻ ⚠ Not secure | 192.168.99.100:9990/console/index.html 🔍 ☆ ⌚ 🔴 Update

HAL Management Console 🔔 admin ▾

Homepage Deployments Configuration Runtime Patching Access Control

HAL Management Console




Deployments

Add and manage deployments

▼ Deploy an Application | Start 🔴

Deploy an application to the server

1. Use the 'Add Deployment' wizard to deploy the application
2. Enable the deployment




Configuration

Configure subsystem settings

▼ Create a Datasource | Start 🔴

Define a datasource to be used by deployed applications. The proper JDBC driver must be deployed and registered.

1. Select the Datasources subsystem
2. Add a Non-XA or XA datasource
3. Use the 'Create Datasource' wizard to configure the datasource settings




Runtime

Monitor server status

▼ Monitor the Server | Start 🔴

View runtime information such as server status, JVM status, and server log files.

1. Select the server
2. View log files or JVM usage




Access Control

Manage user and group permissions for management operations

▼ Assign User Roles | Start 🔴

Assign roles to users or groups to determine access to system resources.

1. Add a new user or group
2. Assign one or more roles to that user or group



Patching

Manage WildFly Full patches

▼ Apply a Patch | Start 🔴

Apply a WildFly Full patch to the server.

1. Download the patch file to the local machine
2. Use the 'Apply Patch' wizard to select and apply the patch

Deployment (1) 🔍 ↻

Filter by: name or deployment status

 java-hello-world.war 🔽

Deployments

A deployment represents anything that can be deployed (e.g. an application such as EJB-JAR, WAR, EAR, any kind of standard archive such as RAR or JBoss-specific deployment) into a server.

You can use **drag and drop** to add new content or replace existing deployments. Simply drag one or several files onto the deployment column. If there's already a deployment with the same name, the deployment will be replaced, otherwise the deployment will be added. The deployments added by drag and drop will be enabled by default.

The Hello-World application is already deployed and running in the JBoss server under active deployments.