Cheatsheet for Docker and IBM Bluemix Containers Beginners (http://heidloff.net/nh/home.nsf /article.xsp?id=17.08.2015084655NHE9YE.htm)

By Niklas Heidloff, posted on Aug 17, 2015

As a developer I prefer graphical tools since I often cannot remember all the different commands for various CLIs (command line interfaces). In cases where I have to use CLIs I write down my own little cheatsheets with the commands I use most often. Below is a minimal set of commands to create Docker images and containers running a Java Liberty application and deploy them to IBM Bluemix (https://bluemix.net).

For more information check out the official Docker CLI documentation (https://docs.docker.com/reference /commandline/cli/) and the IBM Containers CLI documentation (https://www.ng.bluemix.net/docs/containers /container_cli_reference_cfic.html). To interact with Bluemix I use below the IBM Container plugin for Cloud Foundry which you need to install (https://www.ng.bluemix.net/docs/containers/container_cli_cfic.html) in addition to Docker and the Cloud Foundry CLI (https://docs.cloudfoundry.org/devguide/installcf/install-go-cli.html).

Docker

List all images:
docker images

Remove image:
docker rmi _image_tag_

List all containers:
docker ps -a

Remove container:
docker stop _container_name_
docker rm _container_name_

Build image:
docker build -t _image_tag_ .

Run container:
docker run --name _container_name_ -p 80:80 -p 443:443 -d -t _image_tag_

Launch application:
boot2docker ip

browser: http:// _your_ip_

IBM Containers

Login:
cf login
cf ic login

List all images:
cf ic images

Remove image:
cf ic rmi registry.ng.bluemix.net/_your_namespace_/_image_tag_

List all containers:
cf ic ps -a

Remove container:
cf ic stop _container_name_
cf ic rm _container_name_

Push image:
docker tag _image_tag_ registry.ng.bluemix.net/_your_namespace_/_image_tag_
docker push registry.ng.bluemix.net/_your_namespace_/_image_tag_

Run container:
cf ic run --name container_name -p 80:80 -p 443:443 -d -t registry.ng.bluemix.net/_your_namespace_/_image_tag_

Manage IP addresses:
cf ic ip request
cf ic ip list -a
cf ic ip bind _your_ip_ _container_name_

Launch application:
browser: http:// _your_ip_

Sample Liberty Application

I've implemented a simple hello world Liberty application (http://heidloff.net/nh/home.nsf
/article.xsp?id=07222015115210AMNHEDL7.htm). In order to deploy it to Bluemix you can use the commands
above. Here is the Dockerfile which copies the server configuration and the web application.
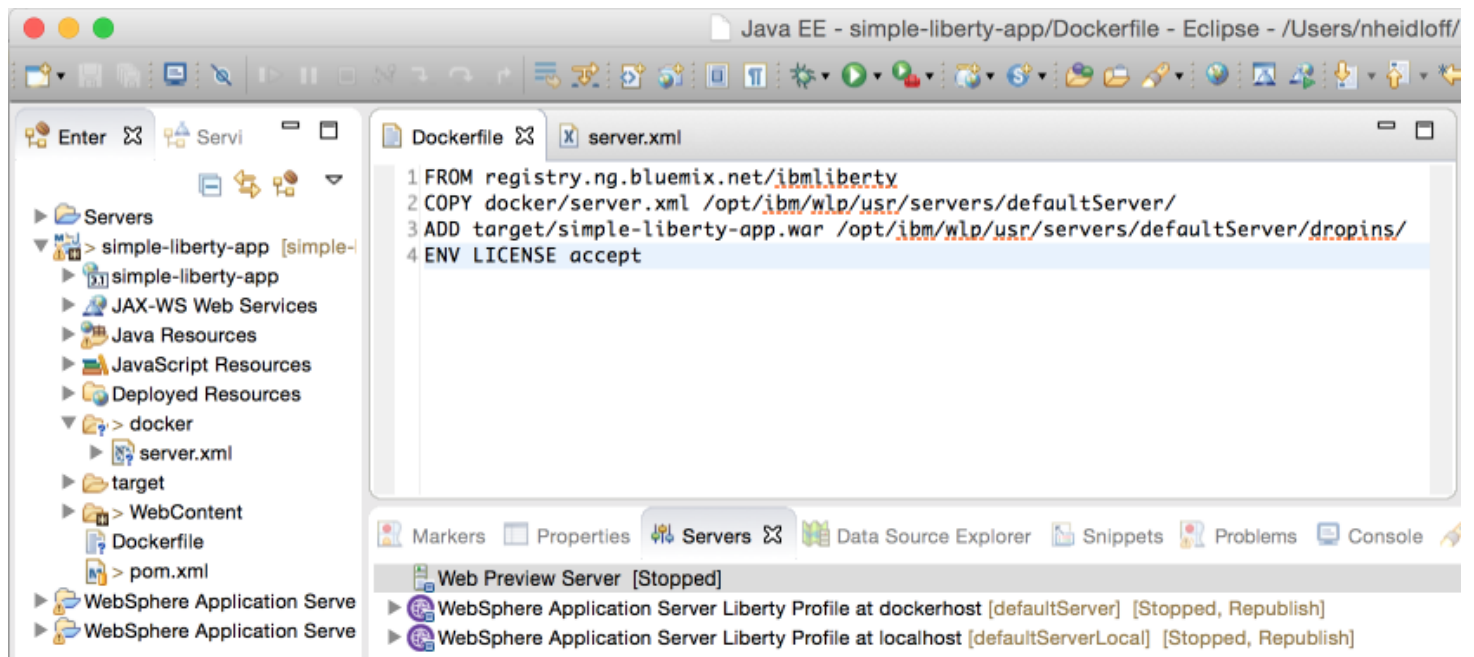
I've configured Liberty to use the ports 80 and 443, but you can also leave the defaults and change the port mappings in the commands above.
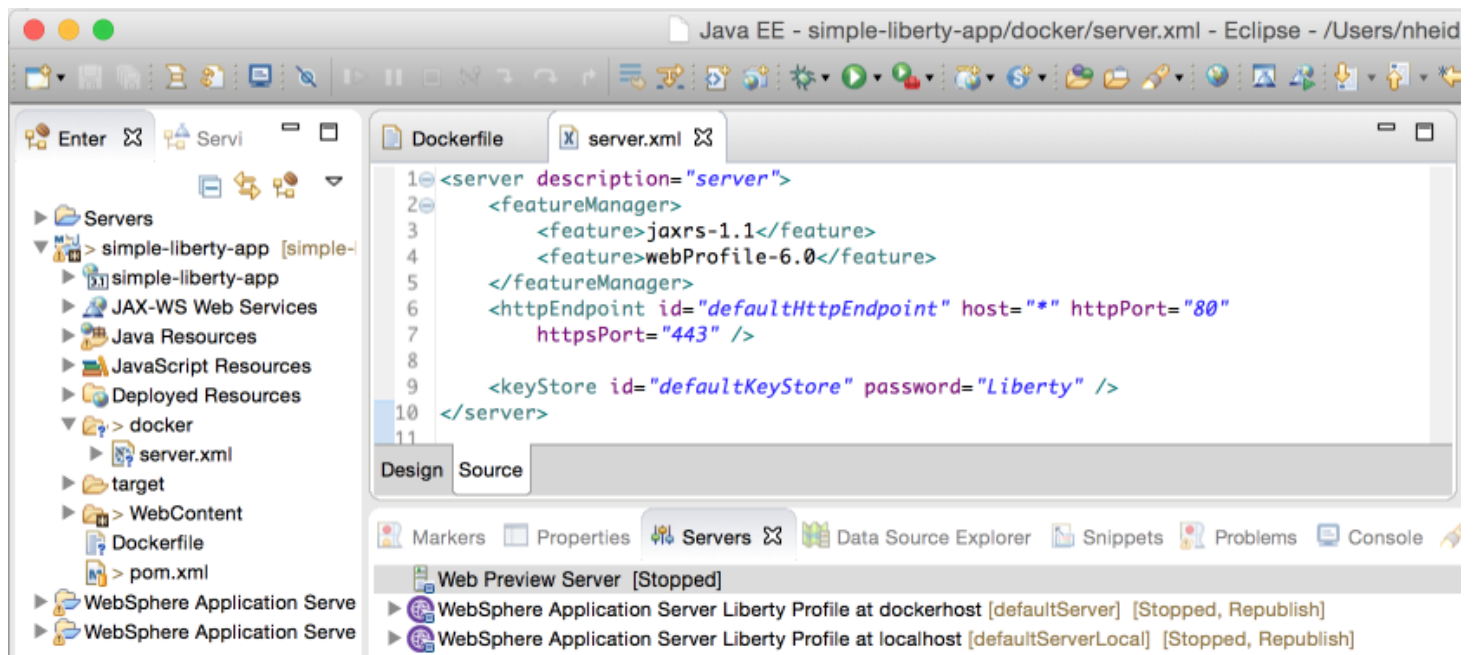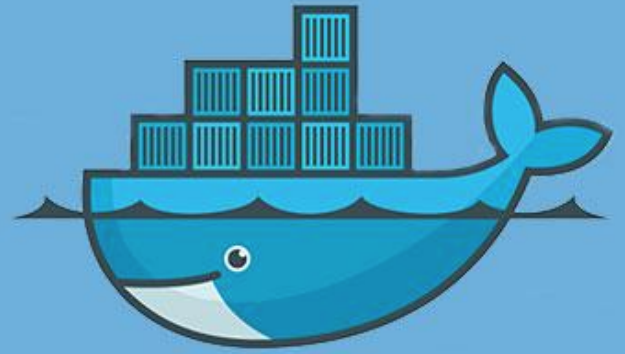
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Remove image:

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Simple IBM Bluemix Sample accessing IBM Connections

4 comments • a year ago

Niklas Heidloff — Michael, no it doesn't. This is the simplest possible sample how to access Connections and not an extension of the SDK.

Maven Plugin to install Web Resources in Bluemix Java Projects via Bower

1 comment • 2 months ago

Smicky — Soon we'll need a dependency manager for dependency managers ;-p

Bluemix and Watson find the healthiest and most affordable Spaces to live

1 comment • 7 months ago

David Navarre — Have a friend moving to Nashville and I'm guessing he'd love it if Watson and Bluemix could serve up one for that city as

Manage your APIs with the new IBM Bluemix Service

1 comment • 6 months ago

René Winkelmeyer — I highly recommend to take a look at Restlet Studio, too. Offers also server- and client-code generation.

Hi, my name is Niklas Heidloff. I work for IBM as an IBM Bluemix Developer Advocate. The blog contains information about IBM Bluemix and articles about my previous work in IBM Collaboration Solutions, esp. IBM Connections and XPages.

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many updates to the Watson services #bluemix
developer.ibm.com/watson/blog/20…

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Maven Plugin to build Images and run Docker
Containers #bluemix
heidloff.net/nh/home.nsf/ar…
pic.twitter.com/0JfOrsRREU

```
simple-liberty-app/pom.xml
59    <plugin>
60        <groupId>org.jolokia</groupId>
61        <artifactId>docker-maven-plugin</artifactId>
62        <version>0.13.4</version>
63        <configuration>
64            <images>
65                <image>
66                    <name>simple-liberty-app</name>
67                    <alias></alias>
68                    <build>
69                        <assembly>
70                            <mode>dir</mode>
71                            <basedir>${basedir}/target</basedir>
72                            <dockerFileDir>${basedir}/target</dockerFileDir>
73                        </assembly>
74                    </build>
75                    <run>
76                        <ports>
77                            <port>80:80</port>
78                            <port>443:443</port>
79                        </ports>
80                    </run>
81                </image>
82            </images>
83        </configuration>
84    </plugin>
```
Overview Dependencies Dependency Hierarchy Effective POM pom.xml

Expand

sandy carter　　　22 Sep
@sandy_carter

'Why Bluemix?' Explained in 10 Minutes #cloud
#bluemix bit.ly/1OPl8TC
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OpenNTF (http://www.openntf.org/Internal/home.nsf/blogsAll.xsp)

IBM Connections Developers (http://developer.ibm.com/social/blog)

OpenNTF (http://www.youtube.com/openntf) and Connections (http://www.youtube.com/ibmsbt) videos

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