

Bioscholar-Docker

1. Create a docker-compose.yml file that runs the mysql container and tomcat container

```
1  version: '3'
2
3  services:
4  mysql-dev:
5    image: mysql:latest
6    environment:
7      MYSQL_ROOT_PASSWORD: 1234
8      MYSQL_DATABASE: evidx
9    ports:
10     - "3306:3306"
11
12   client:
13     image: mysql:latest
14     depends_on:
15       - mysql-dev
16     command: mysql -uroot -p1234 -hmysql-dev evidx
17
18   tomcat:
19     build:
20       context: /Users/deepthidevaraj/Documents/bioScholar/docker/
21       dockerfile: Dockerfile
22     image: tomcat
23     ports:
24       - "8888:8080"
25
```

2. Create a dockerfile that builds a tomcat image. This dockerfile is built through docker-compose.yml file

```
FROM tomcat:8.0-jre8
ENV spring.profiles.active=dev
ENV CATALINA_OPTS="-Dbmkeg.propertiesfile=/usr/local/tomcat/webapps/bioscholar/WEB_INF/bmkeg.properties"
#ENV JAVA_OPTS="-Dbmkeg.propertiesfile=/usr/local/tomcat/webapps/bioscholar/WEB_INF/bmkeg.properties"
COPY bioscholar.war /usr/local/tomcat/webapps/
#COPY bmkeg.properties /usr/local/tomcat/webapps/bioscholar/WEB_INF/bmkeg.properties
RUN export BMKEG_PROPERTIES=/usr/local/tomcat/webapps/bioscholar/WEB_INF/bmkeg.properties
```

3. On the terminal, go to the folder that contains the yaml and dockerfile and run
\$docker-compose up --build

Running the above command creates two containers: mysql-dev and tomcat

```
[Sharayus-MacBook-Pro:docker deepthidevaraj$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                    NAMES
62c42427de5e   mysql:latest   "docker-entrypoint..." 42 seconds ago Up 41 seconds 0.0.0.0:3306->3306/tcp   docker_mysql-dev_1
56d6f5b3d870   tomcat         "catalina.sh run"        43 seconds ago Up 41 seconds  0.0.0.0:8888->8080/tcp   docker_tomcat_1
```

```

[Sharayus-MacBook-Pro:~$ docker exec -it 56d6f5b3d870 bash
root@56d6f5b3d870:/usr/local/tomcat# cd webapps/
root@56d6f5b3d870:/usr/local/tomcat/webapps# ls
ROOT  bioscholar  bioscholar.war  docs  examples  host-manager  manager
root@56d6f5b3d870:/usr/local/tomcat/webapps# cd bioscholar
root@56d6f5b3d870:/usr/local/tomcat/webapps/bioscholar# ls
AC_OETags.js  bioscholar.jsp  digilib.jsp  history  index.jsp  lapdftext.jsp  placeholder.txt  skm-headfoot.jsp  stylesheets  vpdmf.js
META-INF     crossdomain.xml  digitalLibraryClientApp.swf  images  kefedData.jsp  lapdftextClientApp.swf  playerProductInstall.swf  spark_4.5.1.21328.swf  swfobject.js
WEB-INF      dash.jsp         framework_4.5.1.21328.swf  index.html  kefedDesigner.jsp  mx_4.5.1.21328.swf  rpc_4.5.1.21328.swf  sparkskins_4.5.1.21328.swf  textLayout_2.0.0.232.swf
root@56d6f5b3d870:/usr/local/tomcat/webapps/bioscholar# cd WEB-INF/
root@56d6f5b3d870:/usr/local/tomcat/webapps/bioscholar/WEB-INF# ls
applicationContext-daoVpdmf.xml  applicationContext-test.xml  applicationContext.xml  crossdomain.xml  flex-servlet.xml  spring-mvc-config.xml  tags  web.xml
applicationContext-linkedData.xml  applicationContext-secured.xml  classes  flex  lib  spring-thymeleaf-config.xml  view
root@56d6f5b3d870:/usr/local/tomcat/webapps/bioscholar/WEB-INF#

```

- bioscholar.war is copied into /usr/local/tomcat/webapps and also creates the bioscholar folder
- bmkeg.properties is not copied into \$CATALINA_HOME/webapps/bioscholar/WEB-INF in the dockerfile as it overwrites the creation of the bioscholar directory created by bioscholar.war

4. Run \$java -cp /Users/deepthidevaraj/Documents/bioScholar_maven/vpdmfCore/target/vpdmfCore-1.1.5-SNAPSHOT-jar-with-dependencies.jar edu.isi.bmkeg.vpdmf.bin.BuildDatabaseFromVpdmfArchive / <archive-file> <dbname> <login> <password>

where <archive-file>: /Users/deepthidevaraj/Documents/bioScholar_maven/vpdmf-..digitalLibrary/target/vpdmf-digitalLibrary-mysql-1.1.5-SNAPSHOT.zip
 <dbname>: evidx
 <login>: root
 <password>:1234

```

[Sharayus-MacBook-Pro:~$ java -cp /Users/deepthidevaraj/Documents/bioScholar_maven/vpdmfCore/target/vpdmfCore-1.1.5-SNAPSHOT-jar-with-dependencies.jar edu.isi.bmkeg.vpdmf.bin.BuildDatabaseFromVpdmfArchive /Users/deepthidevaraj/Documents/bioScholar_maven/vpdmf-digitalLibrary/target/vpdmf-digitalLibrary-mysql-1.1.5-SNAPSHOT.zip evidx root 1234
VPDMF Archive: /Users/deepthidevaraj/Documents/bioScholar_maven/vpdmf-digitalLibrary/target/vpdmf-digitalLibrary-mysql-1.1.5-SNAPSHOT.zip
Database: evidx
Login: root
INFO : edu.isi.bmkeg.utils.Converters - DELETING FILES FROM /var/folders/sk/l5x____c57liddwcnc3_1kllw000gn/T/1527120365501-0
INFO : edu.isi.bmkeg.utils.Converters - SUCCESS
Build Complete: /Users/deepthidevaraj/Documents/bioScholar_maven/vpdmf-digitalLibrary/target/vpdmf-digitalLibrary-mysql-1.1.5-SNAPSHOT.zip
Sharayus-MacBook-Pro:~$

```

5. Run \$ docker exec -it docker_mysql-dev_1 mysql -uroot -p to connect to the mysql server. Evidx database is created

```

[Sharayus-MacBook-Pro:mysql$ docker exec -it docker_mysql-dev_1 mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.11 MySQL Community Server - GPL

```

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```

mysql> show databases;
+-----+
| Database |
+-----+
| evidx    |
| information_schema |
| mysql    |
| performance_schema |
| sys      |
+-----+
5 rows in set (0.09 sec)

mysql>

```

6. Run **\$docker cp bmkeg.properties**
docker_tomcat_1:/usr/local/tomcat/webapps/bioscholar/WEB-INF/
7. Restart the tomcat container **\$docker restart docker_tomcat_1**