Container Volume Notes

Creating Derby database

- docker run -i -t –name tododb taylodl/derby /bin/bash
  - Gives us a command shell we can use to create Derby databases
  - Also gives us a name we can use to copy database files from
- cd $DERBY_DATABASES
- Run ij:
  - ij
- Create the database:
  - connect 'jdbc:derby:<databasename>;create=true;user=<username>;password=<password>';
- Create schema for user <username>
  - create schema <username>;
- Exit ij:
  - exit;
- Exit the taylodl/derby-volume container
- Copy the database to a local file
  - docker cp tododb:/appl/derby/tododb .
- Create a zipped tarball of the database
  - tar -cvzf tododb.tar.gz tododb
- Now we can create a Docker volume container with this file
  - taylodl/derby-tododb

Using the derby-tododb database

- Let's hit it from NetBeans

    - docker run –name derby-tododb taylodl/derby-tododb
    - docker run -p 1527:1527 –volumes-from=derby-tododb taylodl/derby &

Putting it all together

- Get everything running:
    - docker run –name derby-tododb taylodl/derby-tododb
    - docker run –name derby –volumes-from=derby-tododb taylodl/derby &
    - docker run –name wls-autodeploy-responsive-todo taylodl/wls-autodeploy-responsive-todo
    - docker run -p 7001:7001 –link derby:derby_server –volumes-from=wls-autodeploy-responsive-todo taylodl/wls-responsive-todo &
- Launch browser and go to localhost:7001/responsive-todo
    - Add some new task
- Stop all running containers
    - docker stop `docker ps -q`
- Run our Derby server using the derby-tododb volume container
    - docker run -p 1527:1527 –volumes-from=derby-tododb taylodl/derby &
- Query data from NetBeans
    - Our data is still there!
- Add a new row using NetBeans
- We can view it in our application (after we stop all running Docker containers)
    - docker start derby &
    - docker run -p 7001:7001 –link derby:derby_server –volumes-from=wls-autodeploy-responsive-todo taylodl/wls-mydomain-todb &
- Launch browser and go to localhost:7001/responsive-todo
    - We can now see the task we added from NetBeans!
- This is a lot of work!
- Fig solves this coordination problem

One more thing

- Volume containers like taylodl/derby-tododb and taylodl/wls-autodeploy-responsive-todo only contain data
  - We can copy that data to/from the container
    - docker import
    - docker export