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Let's get this Party Started!

In this lab, you will get to know the MovieFun app and try to get it running on Pivotal Cloud Foundry without changing the code. You'll push the app using different tools and see how it works when you restage and/or increase the number of app instances. The errors that you see in the course of this lab will guide the replatforming process in future labs.

Explore the App

The first thing you should do is make sure your app can run locally.

Clone the MovieFun application from `github` and explore.

```
mkdir ~/workspace  
cd ~/workspace  
git clone https://github.com/platform-acceleration-lab/apps-movie-fun-code.git  
cd apps-movie-fun-code
```

You'll notice in the `pom.xml` file that the app uses a `tomee` server. To run locally, you'll need to download TomEE.

```
brew install tomee-plume
```

Now, run your app. Build the app war file.

```
mvn clean package -DskipTests -Dmaven.test.skip=true
```

Deploy your war file.

```
cp target/moviefun.war /usr/local/Cellar/tomee-plume/1.7.4/libexec/web  
apps
```

Run TomEE

```
/usr/local/Cellar/tomee-plume/1.7.4/libexec/bin/catalina.sh run  
open http://localhost:8080/moviefun
```

Explore your movie fun app in the browser!

What is displayed at the `index` link? What does the `setup` endpoint do?

Try deploying to Pivotal Cloud Foundry

The app works locally. But what about on the Cloud?

To find out, push your app to Cloud Foundry.

```
cf push moviefun -p target/moviefun.war --random-route
```

Questions

What buildpack does PCF use to run your app droplet?

Visit your application from the browser. Does the app work? Why or why not?

Run the smoke tests against your app (change the URL to match the URL at which your app was deployed)

```
MOVIE_FUN_URL=http://moviefun-example.cfapps.io mvn test
```

TomEE buildpack

The app does not work. But what if we take more control of the deployment?

In this case, we'll try deploying using a `TomEE` buildpack.

```
cf push moviefun -p target/moviefun.war -b https://github.com/cloudfoundry-community/tomee-buildpack.git
```

Does the app work now?

Add some movies to your moviefun app by visiting the setup page.

Try `cf restart moviefun`. What happens to your movies when you revisit the app? Why? How could we fix it?

Create and Bind a MySQL Instance

To address the issues we see in our app, let's create a MySQL service and see if that will fix things.

```
cf create-service p-mysql 100mb movies-mysql  
cf bind-service moviefun movies-mysql  
cf restage moviefun
```

Run the smoke tests again.

```
MOVIE_FUN_URL=http://moviefun-example.cfapps.io mvn test
```

Now visit your moviefun application in the browser.

Caution

Our application is now working, but we are a bit wary of this solution. The TomEE Buildpack is a community-developed buildpack, which means that it has no official support from Pivotal. As bug fixes or security fixes are needed, Pivotal commits to updating the officially supported buildpacks and pushing changes to PCF operators. Community buildpacks may be slow to get similar updates, or may not get them at all.

In the next lab you will take advantage of the officially supported Java buildpack and Spring's seamless Cloud Foundry integration.

(<https://pivotal.io>)

