



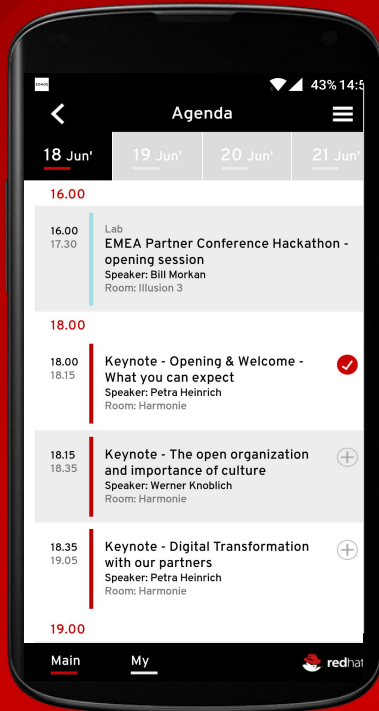
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# **Building Scalable Apps on OpenShift Container Platform (OCP)**

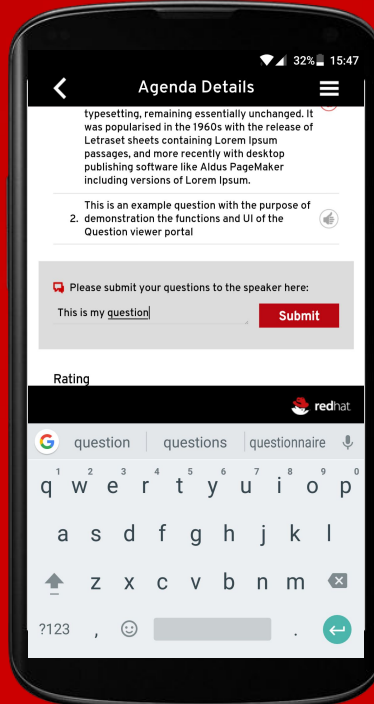
# Don't Forget to Ask Questions in our App!

Ask Questions and Promote Questions asked by others.



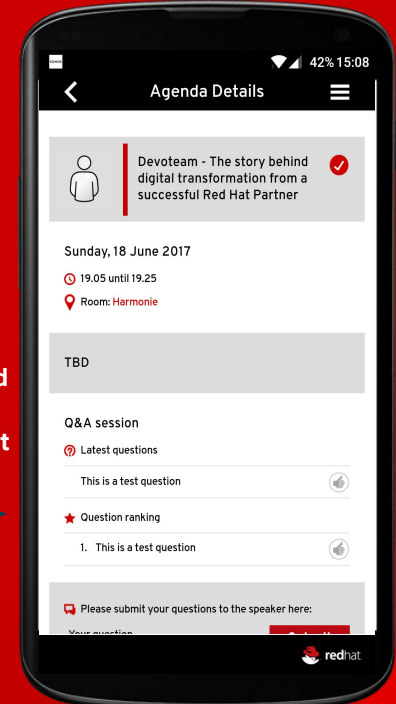
1. Add the session to your personal Agenda, tap 

2. Tap on the session title to view the details



3. Type your question and hit Submit!

4. Or "like" a good question from someone else, just tap 



# Building Scalable Apps on OpenShift Container Platform (OCP) with JBoss Data Grid (JDG)

Make your data storage scale as well as your application !

Romain Pelisse  
Sustain Developer

Tuesday, June 20, 2017 - 10:30 to 12:30

# Agenda

# Labs Goals

What are going to do today

- Lab 0 - Set up a Java project on Openshift
- Lab 1 - Use JBoss Data Grid (library mode) to cache data coming from the database
- Lab 2 - Scale Up !
- Lab 3 - Replace the datasource by JBoss Data Grid

# OpenShift and JBoss Data Grid

If you have no idea what either or both are about, now is the slide to ask about this !  
Otherwise, we'll move along :)

# Kitchen Sink App

Just an other demo app....

**RED HAT JBOSS' ENTERPRISE APPLICATION PLATFORM**

## Welcome to JBoss!

You have successfully deployed a Java EE Enterprise Application.

**Member Registration**  
Enforces annotation-based constraints defined on the model class.

Name:

Email:

Phone #:

**Members**

Id	Name	Email	Phone #	REST URL
0	John Smith	john.smith@mailinator.com	2125551212	/rest/members/0
1	Romain Pelisse	romain@redhat.com	1727442628	/rest/members/1

REST URL for all members: /rest/members

This project was generated from a Maven archetype from JBoss.

- Coming out of the Wildfly / JBoss EAP Quickstarts
  - Simple JEE App
- A simple phone book app
- Using a datasource (HSQLdb) to store its content

# **LAB 0**

## **Set up a Java Project on OpenShift**



# Lab 0 - Set Up OpenShift



Photo Credit: Amy Loves Yah

- Kitchen Sink App
  - Please clone it to your own github account:
  - <https://github.com/rpelisse/kitchensink-webapp-lab>
- Use your clone to create EAP 7.0.5 Project using the OpenShift Web UI
- Deploy the application on OpenShift and test it
  - Check that you can see the WebUI
  - Try to add a phone number

# LAB 1

## Use JDG to cache our data

# Lab 1 - Use JDG to cache our data

... a good old, fashion app cache



Photo Credit: Seth Stoll

- Add JDG as a dependency to the project
- Modify the application code to lookup results in JDG before going to the database
- If results not found, store the results in JDG
- Easy, isn't it ? :)

# LAB 2

## Scale up !

# Lab 2 - Scale up !



Photo Credit: Andrew Wilkinson

- Fire several instances of your app and see how the nodes creates a cluster
- Load a large amount of data, using the provided scripts - see how they spread across the grid

# Lab 3

## Replace the datasource by JDG



# Lab 3 - Replace the datasource by JDG

Go datagrid, all the way...



Photo Credit: [Pattys-photos](#)

- Modify the code to remove any call to the datasource
- Change JDG configuration to be persistent
- Why did we ever use databases in the first place ? :)



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Frankfurt | June 18-21, 2017



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