

# Lab Introduction

Development & Governance with  
Red Hat JBoss Fuse Service Works

# Lab Structure

## Three Labs in One

*SwitchYard*

*Design-Time Governance*

*Runtime Governance*

## One Guide Per Lab

*lab1-guide.key*

*lab2-guide.key*

*lab3-guide.key*

# Lab Schedule

Introduction

Lab Walkthrough

Get your Lab On

Q & A (*at any time really*)

# Lab Key

## TODO Lists

### TODO

*This is a TODO list, which defines tasks which you need to perform during the lab. If you see one of these on a lab slide, make sure you follow each step in the TODO list.*

# Lab Key

## FYI Notes

### **FYI**

*This is a note which provides background on a given step in the lab or a particular configuration or code snippet.*

# Lab Guide Example

## FYI

*You can reveal the implementation for any component in your application by double-clicking on the component in the editor.*

## TODO

1. Double-click on the Credit component to see the implementation we just added.

```
CreditServiceBean.java X
package org.jboss.example.homeloan.credit;

import org.jboss.example.homeloan.data.Applicant;

@Service(CreditService.class)
public class CreditServiceBean implements CreditService {

    @Override
    public CreditInfo creditCheck(Applicant applicant) {
        String creditScore = "000";
        if (applicant != null && applicant.getSsn() != null) {
            creditScore = applicant.getSsn().substring(0, 3);
        }

        CreditInfo credit = new CreditInfo();
        credit.setApplicant(applicant);
        credit.setScore(Integer.parseInt(creditScore));
        return credit;
    }
}
```

# Lab I

## SwitchYard

- Get familiar with the development environment
- Application design and implementation
- Hands on experience with important SwitchYard principles

# Lab 2

## Design-Time Governance

- Gain experience with service governance workflows in Fuse Service Works
- Become familiar with the Design-Time Governance and S-RAMP consoles
- Manage a service through the dev, qa, stage, and production tasks
- Learn Service Lifecycle Management principles



# Lab 3

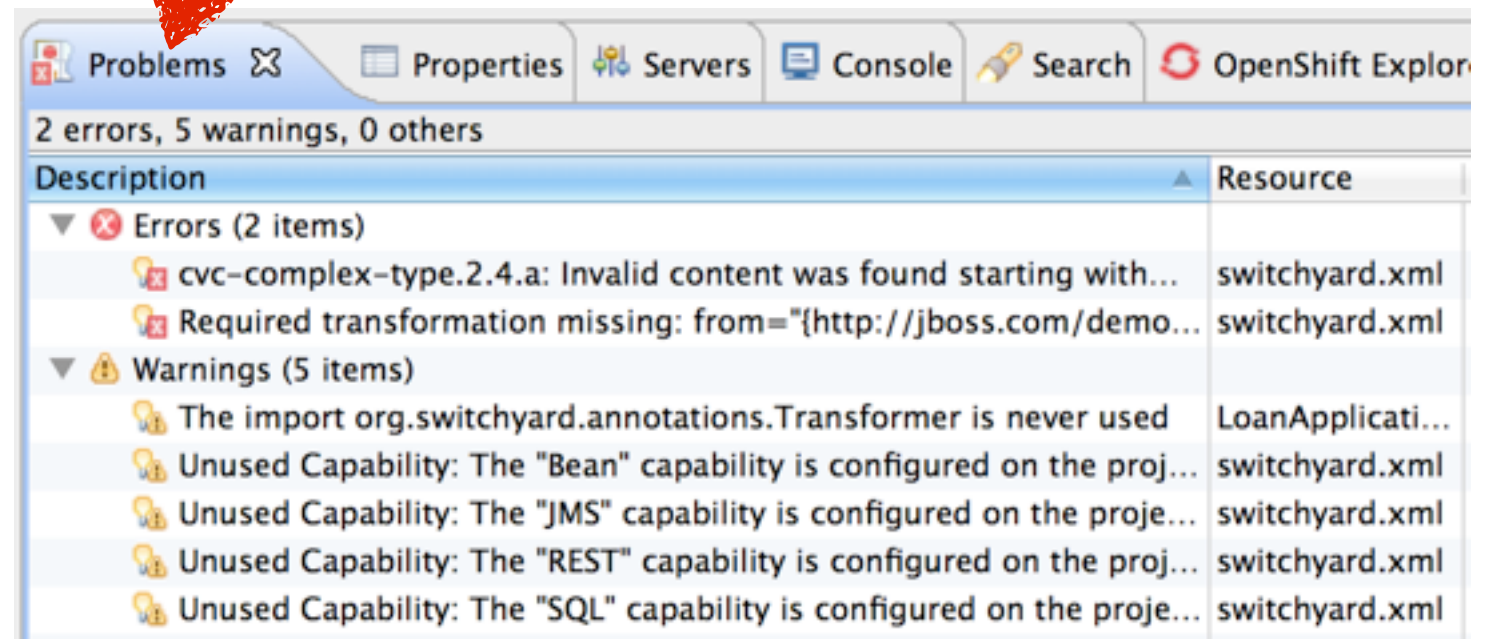
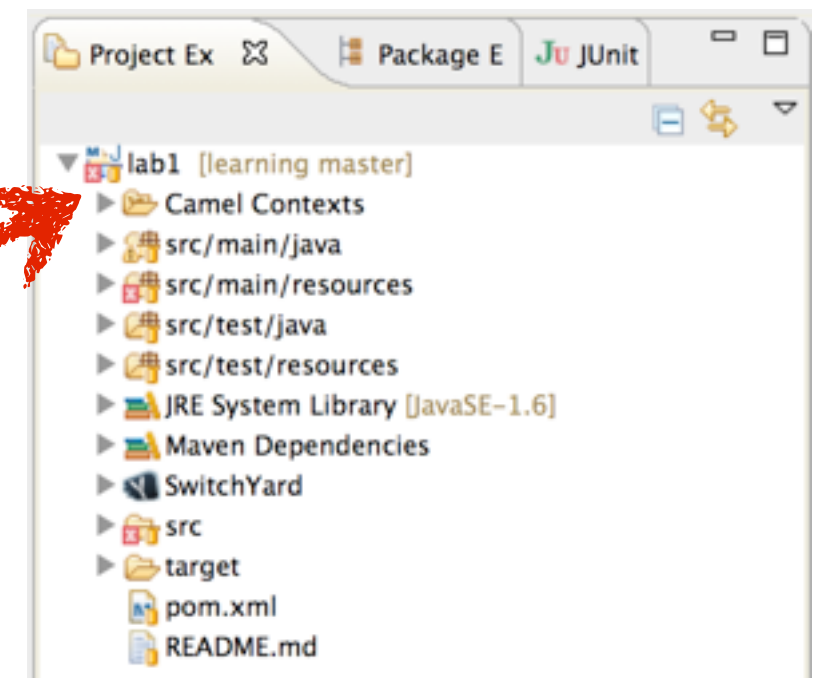
## Runtime Governance

- Gain experience with Runtime Governance capabilities in Fuse Service Works
- Become familiar with Service Activity Monitoring and reporting
- Become familiar with Policy Enforcement

# Gotchas

## FYI

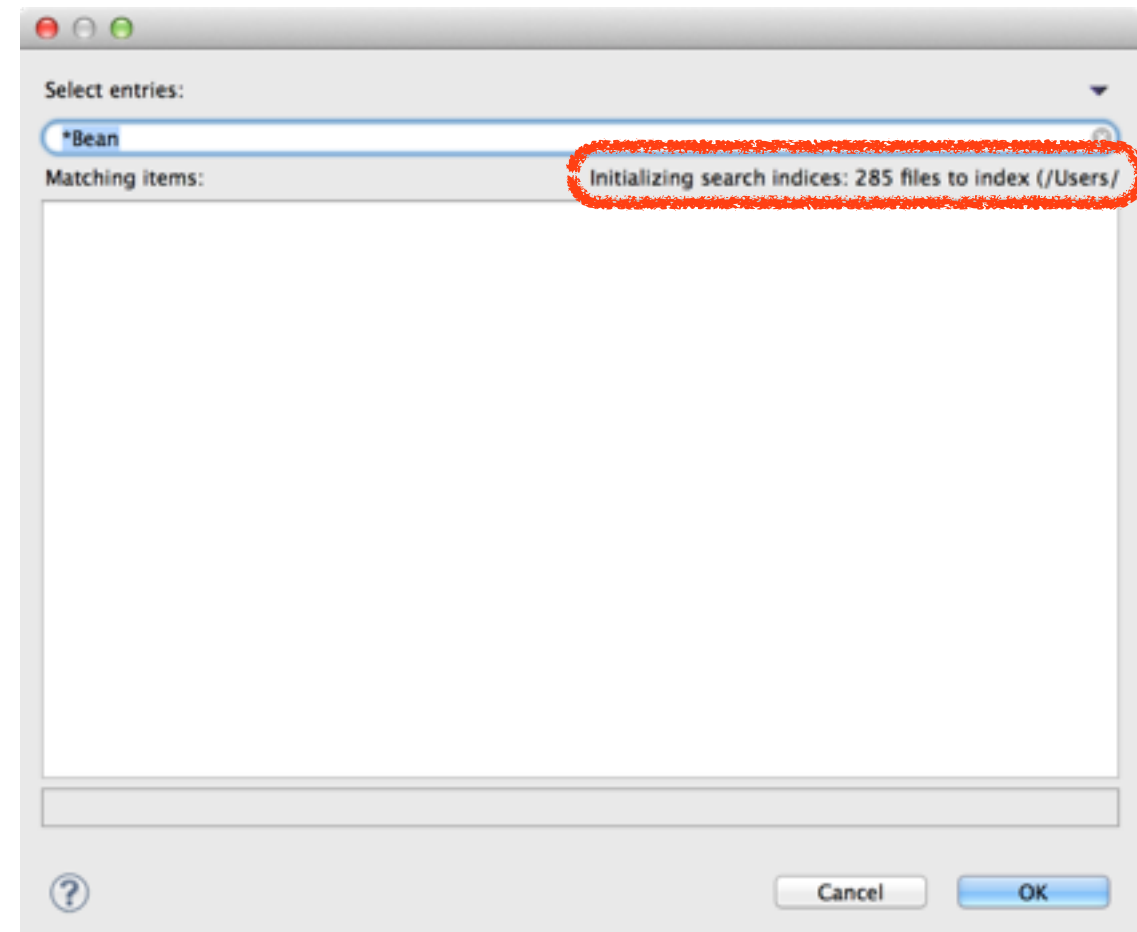
*You will see errors/warnings when you open up the lab1 project. Fear not! These errors exist because the project is not complete. By following the lab steps, you will resolve these errors and world domination is within your grasp!*



# Gotchas

## FYI

*Browsing for an interface will have a slight lag as the editor searches the Maven repository. This will happen once at the beginning of the lab and you shouldn't see it again the rest of the lab. When this is done you'll be able to search for interfaces by entering text.*



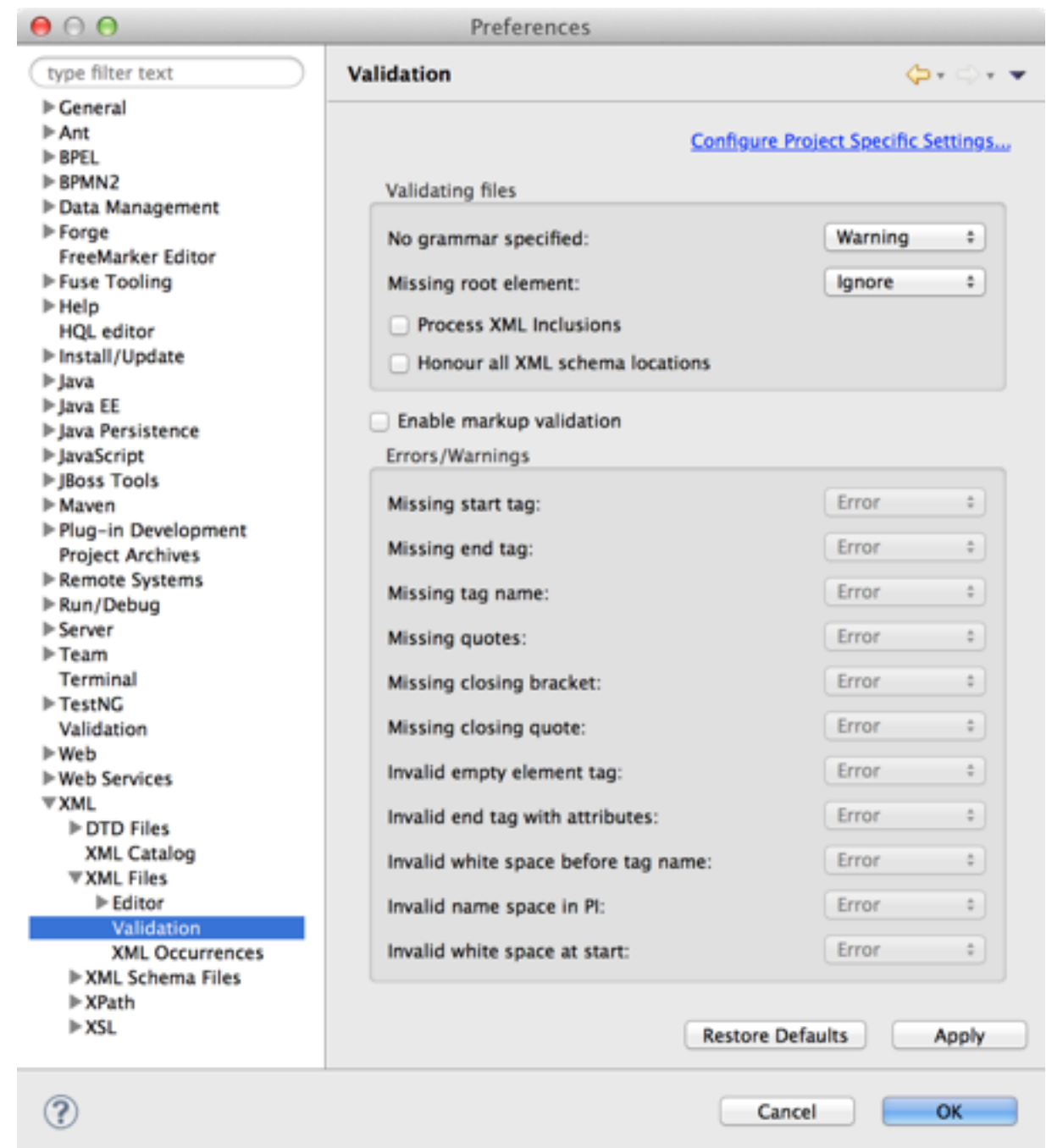
# Gotchas

## FYI

*Eclipse will incorrectly report schema validation errors unless you disable “Honour all XML schema locations” in the editor’s preferences.*

## TODO

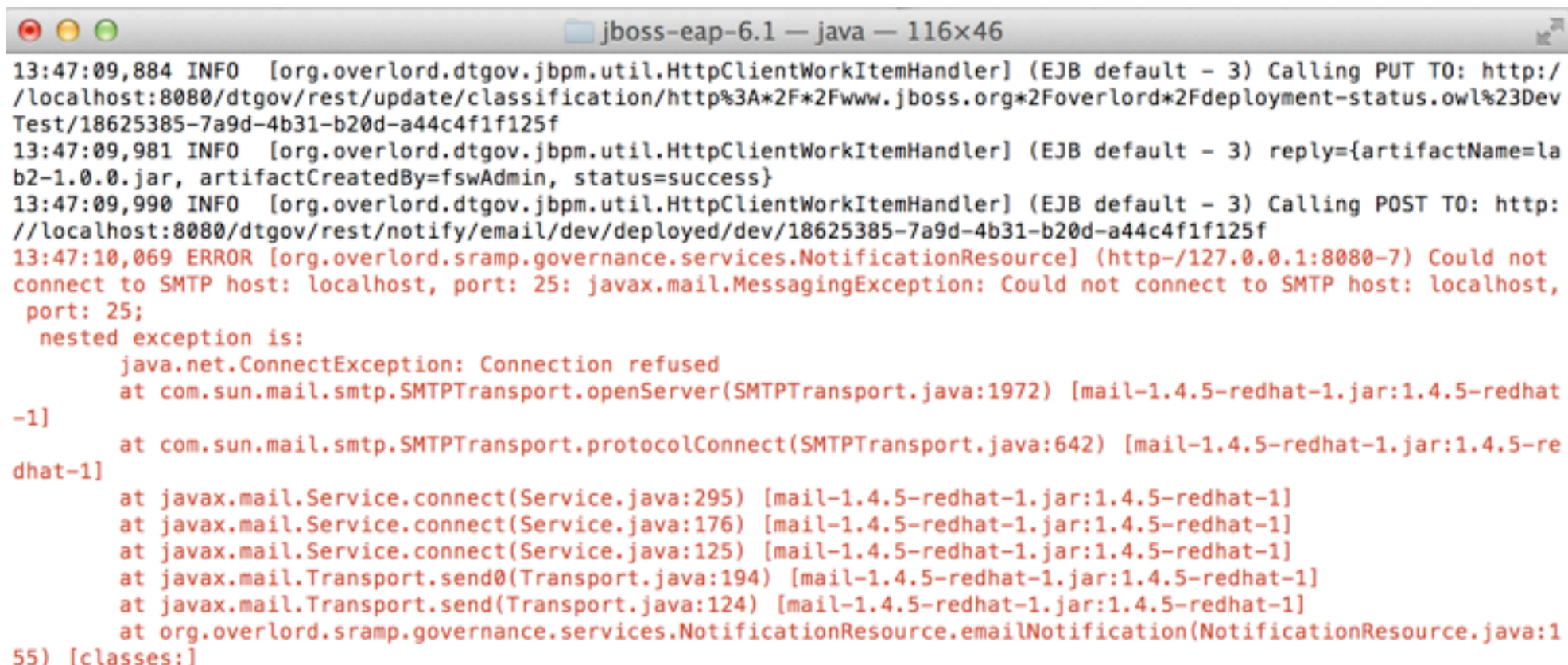
1. Go to the Window -> Preferences menu in the editor.
2. Select XML -> XML Files -> Validation
3. Disable (uncheck) Honour all XML schema locations.



# Gotchas

## FYI

*When deploying the application to the design-time repository you will see an exception in the server log related to SMTP. This can be safely ignored as SMTP and a mail account are not configured for the lab.*



The screenshot shows a Java IDE window titled "jboss-eap-6.1 — java — 116x46". The log contains several INFO messages from "org.overlord.dtgov.jbpm.util.HttpClientWorkItemHandler" and one ERROR message from "org.overlord.sramp.governance.services.NotificationResource". The error message states: "Could not connect to SMTP host: localhost, port: 25: javax.mail.MessagingException: Could not connect to SMTP host: localhost, port: 25; nested exception is: java.net.ConnectException: Connection refused". The stack trace includes "com.sun.mail.smtp.SMTPTransport.openServer", "com.sun.mail.smtp.SMTPTransport.protocolConnect", "javax.mail.Service.connect", "javax.mail.Transport.send0", "javax.mail.Transport.send", and "org.overlord.sramp.governance.services.NotificationResource.emailNotification".

```
13:47:09,884 INFO [org.overlord.dtgov.jbpm.util.HttpClientWorkItemHandler] (EJB default - 3) Calling PUT TO: http://localhost:8080/dtgov/rest/update/classification/http%3A*2F*2Fwww.jboss.org*2Foverlord*2Fdeployment-status.owl%23DevTest/18625385-7a9d-4b31-b20d-a44c4f1f125f
13:47:09,981 INFO [org.overlord.dtgov.jbpm.util.HttpClientWorkItemHandler] (EJB default - 3) reply={artifactName=lab2-1.0.0.jar, artifactCreatedBy=fswAdmin, status=success}
13:47:09,990 INFO [org.overlord.dtgov.jbpm.util.HttpClientWorkItemHandler] (EJB default - 3) Calling POST TO: http://localhost:8080/dtgov/rest/notify/email/dev/deployed/dev/18625385-7a9d-4b31-b20d-a44c4f1f125f
13:47:10,069 ERROR [org.overlord.sramp.governance.services.NotificationResource] (http-/127.0.0.1:8080-7) Could not connect to SMTP host: localhost, port: 25: javax.mail.MessagingException: Could not connect to SMTP host: localhost, port: 25;
    nested exception is:
        java.net.ConnectException: Connection refused
        at com.sun.mail.smtp.SMTPTransport.openServer(SMTPTransport.java:1972) [mail-1.4.5-redhat-1.jar:1.4.5-redhat-1]
        at com.sun.mail.smtp.SMTPTransport.protocolConnect(SMTPTransport.java:642) [mail-1.4.5-redhat-1.jar:1.4.5-redhat-1]
        at javax.mail.Service.connect(Service.java:295) [mail-1.4.5-redhat-1.jar:1.4.5-redhat-1]
        at javax.mail.Service.connect(Service.java:176) [mail-1.4.5-redhat-1.jar:1.4.5-redhat-1]
        at javax.mail.Service.connect(Service.java:125) [mail-1.4.5-redhat-1.jar:1.4.5-redhat-1]
        at javax.mail.Transport.send0(Transport.java:194) [mail-1.4.5-redhat-1.jar:1.4.5-redhat-1]
        at javax.mail.Transport.send(Transport.java:124) [mail-1.4.5-redhat-1.jar:1.4.5-redhat-1]
        at org.overlord.sramp.governance.services.NotificationResource.emailNotification(NotificationResource.java:155) [classes:]
```

# Lab Walkthrough

# It's Go Time

Open `lab1.pdf` to get started!