Developing Applications with Cloud Foundry

Introduction

Course Agenda and Pivotal Background

Pivotal

Logistics

- Participants list
- Self introduction
- MyLearn registration
- Courseware
- Internet access

- Working hours
- Lunch
- Toilets
- Fire alarms
- Emergency exits
- Other questions?

How You will Benefit

- Learn to use Pivotal CF to run applications
  - Introduction to PaaS and Cloud Foundry
  - How to use Pivotal CF
  - Running, debugging applications
  - How to use services
  - Buildpacks
  - And more …

- Gain hands-on experience
  - 60/40 presentation and labs

Pivotal™

Covered in this section

- **Topics**
- Lab Setup
- Pivotal

Day 1 – Pivotal CF Basics

- Introduction to Cloud Technologies
- Getting Started with Pivotal CF
- Cloud Foundry Concepts
- Using Command Line, Web Console, Eclipse Plugin
- Developing with Cloud Foundry
  - Logs, Troubleshooting, Manifests, Environment Variables

Day 2 – Pivotal CF

- Using Services
- Using Buildpacks
- Managing Applications in Cloud Foundry
  - 3rd Party Log Management, Monitoring, Autoscaling, Zero-downtime deployments
- Cloud Foundry Architecture and Components

Day 3 – Management and Development

- Continuous Delivery

- Application Design Principles

- Spring for Cloud Applications

- Deploying Java and JVM Applications

Pivotal.

Covered in this section

- Topics
- **Lab Setup**
- Pivotal

Pivotal.

Lab Environment

- This course includes hands-on exercises
  - Designed to re-enforce presented concepts
- Exercises can be run on various environments
  - Windows, Mac, Linux
- There are some requirements:
  - Internet connection
  - Pivotal CF Installation / Account
    - Or Pivotal Web Services account
  - Cloud Foundry Command Line
  - GitHub Account (optional)
  - Eclipse or Spring Tool Suite

Pivotal™

Pivotal CF Installation /
Pivotal Web Services Account

- Exercises will require a Pivotal CF environment
  - Your organization may already have one

- If not, use **Pivotal Web Services**:
  - Visit https://run.pivotal.io
  - Sign up for a trial account

Cloud Foundry – Command Line Interface (CLI)

- Most exercises involve running commands to interact with Cloud Foundry

- Install Cloud Foundry Command Line Interface
  - Visit https://console.run.pivotal.io/tools
    - or https://github.com/cloudfoundry/cli
  - Download / Run installer for your platform
    - English, French, Mandarin, Portuguese, Spanish available

CLOUD F**O**UNDRY

Pivotal™

Eclipse / Spring Tool Suite

- Some exercises involve inspecting / modifying existing program code
  - Emphasis is on *using* Cloud Foundry
  - Programming knowledge is not a strict requirement for this course, though many development topics are covered
  - *Do not install an IDE unless you normally use one*

- Install Eclipse or Spring Tool Suite
  - Visit https://www.eclipse.org/downloads/ or http://spring.io/tools
  - Download / Run installer for your platform
  - Note: Java based examples use Java 8

Pivotal™

GitHub

- Course materials stored in GitHub
  - Visit https://github.com
  - GitHub account recommended, but not required
- Course Materials
  - Download from
    https://github.com/S2EDU/CloudFoundryStudentFiles
  - Download Zip or use Clone
    - Depending on if you have a GitHub account
    - (Advanced Git knowledge not required for this course)

Covered in this section

- Topics
- Lab Setup
- **Pivotal**

Pivotal.

Pivotal

- A collaboration between
  - EMC
  - VMware
  - General Electric
- Born on April 1, 2013
  - Pre-IPO

Pivotal Platform

Summary

- Agenda
- Pivotal

Let's get on with the course ...

Lab

Setup Lab Environment

Pivotal™