Enterprise Application Development in the Cloud Workshop

Executive Deck v0.3

Introduction

- The next generation Development Platform for developing Enterprise Applications will be browser and cloud based.
- This Workshop will demonstrate what this Development Platform will look like and give students a hands on opportunity to experience this platform.
- The Development Platform will consist of the following components:
  - ★ Cloud based IDE - Codenvy
  - ★ Cloud based Development Runtimes - Codenvy
  - ★ Cloud based Production Runtimes - Microsoft Azure and/or Redhat OpenShift (on PaaS)
  - ★ Cloud based Source Control System - Github
  - ★ Cloud based Automated Build System - Redhat Openshift (using Jenkins)
  - ★ Cloud based DevOps Automation - Jenkins, JUnit, Maven, JMeter (using flood.io)

Student Learning Objectives

- The Workshop will focus on the following learning objectives:
  - ★ Teach students how to develop Enterprise Application using a Cloud based IDE
  - ★ Teach students how to deploy Enterprise Application to a PaaS Cloud
  - ★ Teach students how to build responsive applications using Bootstrap and Laravel Framework
  - ★ Teach students how to build REST based API's using Spring Framework, Java, and Tomcat/Wildfly
  - ★ Teach students how to build Performance Load Tests using JMeter and Flood.io
  - ★ Teach students how to apply DevOps automation principles using Maven, JUnit, and Jenkins

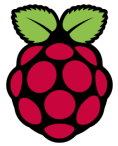
Student Learning Opportunities

- The Reference Architecture used in the Workshop demonstrates MANY programming languages, frameworks, and tools already taught to our students as part of the GCU CSET Computer Programming program.
- The Reference Architecture used in the Workshop will provide a fantastic learning opportunity for the students by gaining hands on expertise with a number of additional new technologies.

Apply Prior Learned Knowled
(Languages and Frameworks)

New Learning Opportunity:
(Languages and Frameworks)

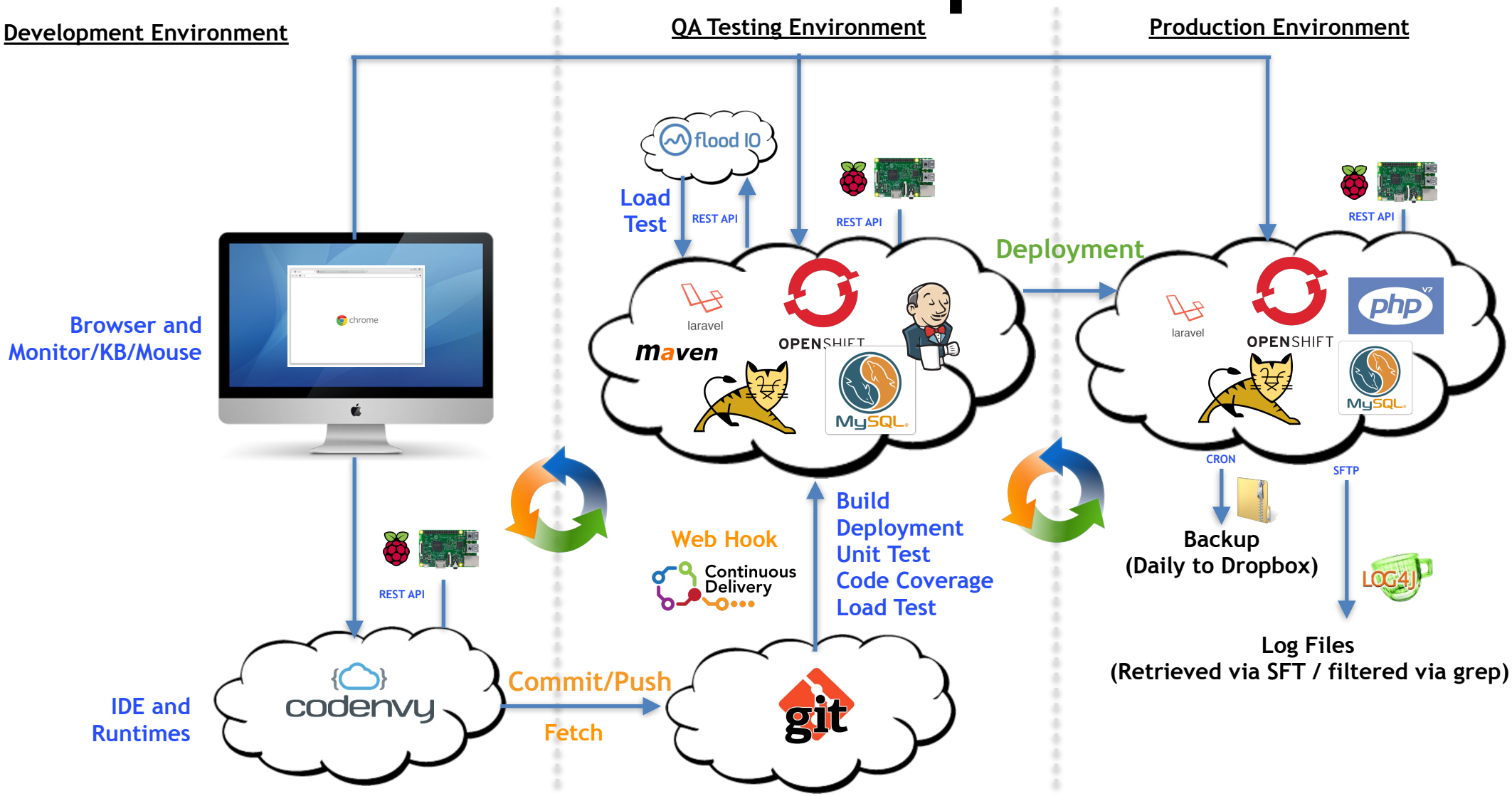
New Learning Opportunity:
(Cloud and Tools)




Student Activities

- The Workshop will be held as a series of weekly hands on Explore More sessions:
  - ★ Students will be given an introduction to the Reference Architecture and SDK
  - ★ Students will design and build the IoT back end based application using the Spring Framework
  - ★ Students will design and build the Reporting front end application using the Laravel framework
  - ★ Students will do all development in the Cloud using Codenvy and deploy to OpenShift/Azure:
    - ❖ A Github account can be setup for free
    - ❖ A Codenvy account can be setup for free
    - ❖ A Redhat OpenShift and Microsoft Azure developer account can be setup for free
    - ❖ The students will simply need a laptop with only a browser installed
    - ❖ Note: My Raspberry Pi and IoT application will be provided for use in the Workshop

Cloud Based Development Platform



Physical Cloud Architecture