Course Code: ZA616GS

Course Title: Transforming Applications with IBM WebSere Hybrid Edition

Description:

This course teaches students how to transform traditional (monolithic) WebSere applications to run in a containerized environment–Red Hat OpenShift–by using WebSere Hybrid Edition. It covers two key reference implementations:

Operational Modernization: Repackage the application to deploy in a container while maintaining the monolithic architecture. This solution does not require changes to the application or runtime. It uses Transformation Advisor (part of WebSere Hybrid Edition) to assess the application, and the Runtime Operator to manage the containerized application on Red Hat OpenShift.

Runtime Modernization: Update the application to run on Open Liberty, a modern cloud-native runtime. Modernize some aspects of the application by taking advantage of MicroProfile specifications. This solution uses Transformation Advisor (part of WebSere Hybrid Edition), and the Open Liberty Operator to deploy and manage the modernized application on Red Hat OpenShift.

Objectives:

- Describe the key concepts and reference implementations for application modernization
- Use Podman to create and manage container images
- Use Transformation Advisor to assess an application
- Implement operational modernization: repackage and deploy a traditional WebSere application to a container runtime
- Implement runtime modernization: repackage and deploy a Liberty application to a container runtime

Exercises

- Exercise 1 - Introduction to containers
- Exercise 2 - Introduction to Red Hat OpenShift
- Exercise 3 - Use Transformation Advisor to assess an application
- Exercise 4 - Operational modernization
- Exercise 5 - Runtime modernization

Prerequisites:

- Experience with WebSere application development and deployment
- Familiarity with WebSere Application Server or Liberty system administration tools
- Familiarity with the Red Hat OpenShift console and command line interface (CLI)
- Experience using the Linux operating system
- Recommended prerequisite course: DL10031 - Application Migration and Modernization with IBM WebSere Hybrid Edition (https://learn.ibm.com/course/view.p?id=9154)

Duration:

16 Hrs

Topics:

- Welcome
- Unit 1 - Introduction to application modernization
- Unit 2 - Working with containers
- Exercise 1 - Introduction to containers
- Unit 3 - Introduction to Red Hat OpenShift
- Exercise 2 - Introduction to Red Hat OpenShift
- Unit 4 - Introduction to IBM Cloud Transformation Advisor
- Exercise 3 - Use Transformation Advisor to assess an application
- Unit 5 - Operational modernization
- Exercise 4 - Operational modernization
- Unit 6 - Runtime modernization
- Exercise 5 - Runtime modernization
- Wrap-up

Audience:

The primary audience for this course is the Application Developer. Their company is driven by the need to build new capabilities and deliver them quickly. Modernizing applications can provide the immediate benefits of improving developer productivity and operational efficiency.