**Design and Deploy Full-Stack Cloud Environments with IBM UrbanCode Deploy – v6.2.1.1**

Description: 5300_IBMpos

**ZQ411 (Self-paced)**



Course description

IBM UrbanCode Deploy is a tool for standardizing and simplifying the process of deploying software components to each environment in your development cycle. When you use blueprints for OpenStack-based clouds, you can use a full-stack approach to simultaneously model the application and infrastructure layers of your deployment.

In this course, you learn how to administer the cloud through both the Blueprint Designer and the Horizon user interface. Hands-on labs use IBM UrbanCode Deploy in a cloud environment and cover integrations with an OpenStack back-end and IBM UrbanCode Deploy, modeling the cloud infrastructure and application layers, provisioning environments from blueprints, creating and using configuration files, updating a running environment, and using Git repositories to store and manage blueprints.

For information about other related courses, visit the IBM Training website:

http://www.ibm.com/training

General information

Delivery method

Self-paced virtual classroom (SPVC)

Course level

ERC 1.0

Product and version

IBM UrbanCode Deploy v6.2.1.1

Audience

This is a basic course for new users of the IBM UrbanCode Deploy Blueprint Designer, such as administrators, performance testers, development teams, and operations leads.

Learning objectives

After completing this course, you should be able to:

* List the concepts and use cases of the IBM UrbanCode Deploy Blueprint Designer
* Configure the IBM UrbanCode Deploy Blueprint Designer for public and private cloud operation
* Model cloud landscapes in a graphical and text-based way
* Deploy simple and advanced cloud environments
* Use the repository for storing and managing blueprints

Prerequisites

Before taking this course, you should have basic knowledge about the following topics:

* Cloud computing (private and public)
* OpenStack, in particular the Heat project
* IBM UrbanCode Deploy applications and components

Duration

1 day

Skill level

Basic

Notes

The following unit and exercise durations are estimates, and might not reflect every class experience.

This course is an update of the following previous courses:

* ZQ410, *Design Application Deployment with IBM UrbanCode Deploy*

Course agenda

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| Unit 1. Overview | |
| Overview | The IBM UrbanCode Deploy Blueprint Designer is a full-stack environment management and deployment solution that you can use to design, deploy, and update full-stack environments for multiple clouds. |
| Learning objectives | After completing this unit, you should be able to:   * Describe the capabilities and architecture of OpenStack * Describe the scenario of a Heat stack in software deployment * Describe how full-stack patterns work across cloud offerings * Explore the capabilities of the Blueprint Designer |

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| Unit 2. Settings and configuration | |
| Overview | To use cloud compute resources, such as images, networks, and storage, you must connect the blueprint design server to a cloud system. To deploy applications to these resources, you must also connect to the IBM UrbanCode Deploy server. |
| Learning objectives | After completing this unit, you should be able to:   * Describe the configuration options in the Blueprint Designer * Configure access control for users, roles, and teams * Explore the available artifacts from the integrations in the Blueprint Designer |

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| Unit 3. Blueprints and cloud infrastructure | |
| Overview | The IBM UrbanCode Deploy Blueprint Designer helps you to extend your cloud and virtualization technology and make that part of your complete DevOps delivery pipeline. |
| Learning objectives | After completing this unit, you should be able to:   * Explore the options of the Blueprint Designer that relate to images, networks, and storage * Show how changes in the graphical editor manifest in the Heat Orchestration source code * Create and configure a simple blueprint that includes the OpenStack artifacts * Deploy a blueprint to a cloud environment and view the changes in OpenStack |

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| Unit 4. Blueprints and UCD apps | |
| Overview | When you provision a cloud environment, you set aside resources on the specified cloud that you assigned through a blueprint. By using the Blueprint Designer, you can model a full-stack environment, including the infrastructure and application, in a single model and deploy it to the cloud in a single step. |
| Learning objectives | After completing this unit, you should be able to:   * Review the application, component, and deployment processes in IBM UrbanCode Deploy * Explore the options of the Blueprint Designer that relate to application components * Modify the existing blueprint to include application components * Explain how the IBM UrbanCode Deploy processes are triggered in the source code * Deploy a blueprint to a cloud environment and view the changes in IBM UrbanCode Deploy and OpenStack * Delete cloud environments and confirm that the resources are removed |

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| Unit 5. Blueprints and UCD provision | |
| Overview | You can divide the functional areas of the blueprint into separate servers, so you can assign the appropriate security controls. You also create a configuration file that contains the initial values for the input properties for the blueprint. |
| Learning objectives | After completing this unit, you should be able to:   * Create a configuration file with values * View the deployments in IBM UrbanCode Deploy and OpenStack * Provision a blueprint from IBM UrbanCode Deploy |

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| Unit 6. Repositories | |
| Overview | When you work with blueprints, you can organize and share them by using the Git distributed version control system. |
| Learning objectives | After completing this unit, you should be able to:   * Review the three types of Git repositories * Copy a project to your local workspace * Push and fetch changes with local and remote repositories |

For more information

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