Description: Description: 5300_IBMpos

Design Software Deployment and Deploy Applications with IBM UrbanCode Deploy

ZQ410 (Self-paced virtual classroom)

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.

This is a beginner-level course for users of IBM UrbanCode Deploy, such as administrators, development teams, and operations leads. In this course, you learn how to plan and automate the deployment of applications to test environments. Hands-on labs use IBM UrbanCode Deploy and cover deploying a simple web application. You create components, create an application that contains those components, and then deploy the components to an environment.

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

**ibm.com**/training

General information

Delivery method

Self-paced virtual

Course level

ERC 1.0

Product and version

UrbanCode Deploy All, UrbanCode Deploy with Patterns 6, UrbanCode Deploy 6

Audience

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

Learning objectives

After completing this course, you should be able to:

* Describe how IBM UrbanCode Deploy supports the principles and practices of DevOps
* List the main concepts and features of IBM UrbanCode Deploy
* Plan and automate the deployment of applications to test environments
* Configure a security model with roles, approvals, and quality statuses and gates

Prerequisites

Before you take this course, you should have a basic understanding of client-server architecture and multitier application models.

Duration

1 day

Skill level

Advanced

Notes

The following unit and exercise durations are estimates, and might not reflect every class experience. If the course is customized or abbreviated, the duration of unchanged units will probably increase.

This course is a new course.

Course agenda

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| Preface  Duration: 15 minutes | |
| Overview | In this course, you learn how to plan and automate the deployment of applications to test environments. Hands-on labs use IBM UrbanCode Deploy and cover deploying a simple web application. |
| Learning objectives | After completing this session, you should be able to:   * Describe how IBM UrbanCode Deploy supports the principles and practices of DevOps * List the main concepts and features of IBM UrbanCode Deploy * Plan and automate the deployment of applications to test environments * Configure a security model with roles, approvals, and quality statuses and gates |

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| **Unit 1 Designing software deployment and deploying applications**  Duration: 10 minutes | |
| Overview | IBM UrbanCode Deploy is a deployment automation tool that standardizes and simplifies the process of deploying software components to each environment in the development cycle. In this unit, you learn about typical deployment problems and key deployment elements and concepts. |
| Learning objectives | After completing this unit, you should be able to:   * Describe typical deployment problems􀂃 * Explain the benefits of a DevOps culture􀂃 * Define model-driven deployment􀂃 * Define key concepts and terms􀂃 * Describe the workflow for a basic project |

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| **Unit 2 Configuring components and component processes**  Duration: 18 minutes | |
| Overview | Components represent deployable items along with user-defined processes that operate on them, usually by deploying them. In this unit, you learn how to create a component, import component versions, create component processes, and work with properties. |
| Learning objectives | After completing this exercise, you should be able to:   * Describe the purpose and structure of a component * Create components and import component artifacts * Create component processes to deploy components * Store component information with properties |

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| Unit 2 Exercises 1 - 7 | |
| Overview | In this exercise, you import artifacts from a build to create components and create processes for deploying the components. You work with the process step types and logic that are used to deploy, install, uninstall, or update components. You create a component template that includes reusable component processes and properties. |
| Learning objectives | After completing this unit, you should be able to:   * Create components and add user-defined properties to them. * Import artifacts to create component versions. * Create component processes. |

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| **Unit 3 Defining deployments with resources, environments, and application processes**  Duration: 14 minutes | |
| Overview | Applications identify the component versions that must be deployed together. They also define the different environments that the components must go through on the way to production. In this unit, you learn to create an application and add components, create environments and add resources, and create application processes. |
| Learning objectives | After completing this unit, you should be able to:   * Describe the structure of an application * Explain how agents communicate with the server * Describe the properties used for resources * Create an environment for deployments * Map resources to environmentsCreate an application process to install components |

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| Unit 3 Exercises 1-8  Duration: | |
| Overview | In these exercises, you create an application and add the components. Then you configure the resources for two environments, so that you can simulate developing and promoting an application in a later exercise. |
| Learning objectives | After completing this exercise, you should be able to:   * Create an application and associate components * Create environments and associate base resources * Create an application process to deploy components |

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| **Unit 4 Deploying applications to target environments**  Duration: 7 minutes | |
| Overview | You run a deployment by running an application process in a target environment. In this unit, you learn how to deploy to an environment, create and deploy snapshots, and compare environments to view the inventory in each one. |
| Learning objectives | After completing this unit, you should be able to:   * Describe what happens in a deployment * Describe the difference between full and incremental deployments * Describe why and how to use snapshots * View which versions are deployed to environments * View the file differences between the environments * Preview deployments for impact analysis * Migrate changes from one environment to another |

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| Unit 4 Exercises 1 - 6  Duration: | |
| Overview | In these exercises, you run an application process to deploy components. After successfully deploying a set of components, you use snapshots to deploy the components, application, and processes that you created for the JPetStore application to a new environment. |
| Learning objectives | After completing this exercise, you should be able to:   * Run an application process to deploy components * Deploy specific component versions to update the application * Create a snapshot and deploy it to a new environment |

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| Unit 5 Setting up server security, approvals, and quality gates  Duration: 9 minutes | |
| Overview | IBM UrbanCode Deploy uses a flexible team-based and role-based security model that maps to your organizational structure. In this unit, you learn how to define and configure roles, set up approvals and notifications, and use quality statuses and gates. |
| Learning objectives | After completing this unit, you should be able to:   * Describe the significance of a system team􀂃 * Create authorization realms, user groups, and teams􀂃 * Create and define roles and permissions􀂃 * Set up notifications and approvals􀂃 * Implement statuses and gates to ensure testing quality |

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| Unit 5 Exercises 1 - 5  Duration: | |
| Overview | In these exercises, you use authentication for a new user that logs in to IBM UrbanCode Deploy. Authorization is based on a set of roles, that are applied to a set of teams, which are applied to a set of objects. Each role defines a set of actions, and each team contains users who are assigned to roles. Objects include applications, environments, and components. |
| Learning objectives | After completing this exercise, you should be able to:   * Create a new user and role * Create a team * Associate the team to the existing application and environments |

For more information

To learn more about this course and other related offerings, and to schedule training, see **ibm.com**/training

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