Pivotal.

Pivotal Cloud Foundry Developer

DELIVERY METHODS

- Instructor-led
- Live-online
- e-Learning

COURSE DURATION

- Three days

TARGET AUDIENCE

Application developers seeking introductory understanding of Pivotal Cloud Foundry and hands-on experience using it to deploy, manage, and scale applications..

PREREQUISITES

Understanding of application development and deployment..

PRICING

Please visit our website at pivotal.io/academy

MORE INFORMATION

On-site training is also available for customers who prefer to bring a Pivotal Certified Instructor to their own facilities For additional information about on-site classes, including facility requirements, contact education@pivotal.io

COURSE OVERVIEW

This hands-on course provides students with the concepts and experience needed to work with and deploy applications on Pivotal Cloud Foundry. Students will learn how to push applications to Pivotal Cloud Foundry (various languages), and many of the concepts and features of the Pivotal Cloud Foundry platform, including services, log draining, metrics, buildpacks, service brokers, and route services.

Students will explore topics directly related to the design and running of cloud native applications, including microservice architectures, blue-green deployments, and continuous delivery.

COURSE OBJECTIVES

At the end of the training, you should have an understanding of the following:

- Understand the differences between traditional IT provisioning, Infrastructure as a Service and Platform as a Service
- Explain organizations, spaces, routes, services (managed, user-defined), manifests, buildpacks, applications and droplets
- Identify Pivotal Cloud Foundry components: Router, Cloud Controller, Health Manager, Loggregator and Cells
- Deploy pre-existing applications to Pivotal Cloud Foundry, obtain logs, debug deployment issues, scale, start, stop, bind to services
- Use the command-line interface and Apps Manager to work with Pivotal Cloud Foundry
- Understand the impact of the cloud environment on application architecture
- Perform zero-downtime deployments
- Understand the role of services in Pivotal Cloud Foundry, gain experience using one or more examples
- Understand the purpose of buildpacks, gain experience specifying buildpacks and making configuration changes
- Understand and gain experience with 3rd party log management, Application Performance Monitoring, and Continuous Delivery tools that integrate with Pivotal Cloud Foundry.

COURSE MODULES

1. AN INTRODUCTION TO PIVOTAL CLOUD FOUNDRY

- Evolution of Cloud Architectures
- Industry Trends
- Cloud Foundry
- Pivotal Cloud Foundry

2. LOGGING, SCALE AND HA

- Cloud Native Apps
- Elastic Runtime Architecture
- High Availability

3. SERVICES

- Cloud Native Apps
- Managed Services
- User Provided Service Instances

4. MANIFESTS

- Using Manifests

5. APPLICATION SECURITY GROUPS

- Managing Application Security Groups

6. LOG DRAINING

- Cloud Native Apps
- Loggregator Review

7. BLUE-GREEN DEPLOYMENTS

- Blue-Green Routing
- Implications App Design

8. MICROSERVICES

- The Monolith
- Microservices
- Microservices and Pivotal Cloud Foundry

9. APPLICATION AUTOSCALER

- Managing the Autoscaler

10. APPLICATION PERFORMANCE MONITOR

- Application Monitoring with New Relic

11. METRICS

- Using Pivotal Cloud Foundry Metrics

12. BUILDPACKS

- Buildpack API

13. SERVICE BROKERS

- Service Broker API

14. CONTINUOUS DELIVERY

- Continuous Delivery Defined
- How Pivotal Cloud Foundry Enables Continuous Delivery

15. ROUTE SERVICE

- Purpose
- Request Flow