

# Cloud Application Developer Training Assets

## *Section 1: Hosting Cloud Applications*

- a. Describe Cloud service models and IBM Cloud offerings

File: CDC1 Cloud Service Models.pptx      <https://www.youtube.com/watch?v=bg-ArRTOKfl>

- b. Describe the different capabilities of IBM Bluemix

File: CDC1 IBM Bluemix Capabilities.pptx      <https://www.youtube.com/watch?v=SEb-wmJkuhl>

## *Section 2: Planning Cloud Applications*

- a. Describe key components of IBM Bluemix PaaS environment

File: CDC1 Bluemix PaaS.pptx      <https://www.youtube.com/watch?v=5bakiMmukCo>

- b. Describe components of IBM Bluemix PaaS architecture based on Cloud Foundry

File: CDC1 Bluemix and Cloud Foundry.pptx      <https://www.youtube.com/watch?v=xsaw2CJGc9w>

- c. Explain the process of staging an application in IBM Bluemix PaaS

File: N/A      <https://www.youtube.com/watch?v=xsaw2CJGc9w>

- d. Describe the organization management elements in IBM Bluemix PaaS: Spaces, Users, Domains and Quota

File: CDC1 Bluemix Management.pptx      <https://www.youtube.com/watch?v=IhHyUZ6BTZM>

- e. Understand IBM Bluemix Regions and how to manage applications in multiple regions

File: ???

- f. Use the Cloud Foundry CLI (cf) tool to manage applications in IBM Bluemix PaaS

Files: CDC1 CloudFoundry CLI.pptx      <https://www.youtube.com/watch?v=pXiajtaIRp8>

CDC1 CFCLI Lab.doc

CDC1 CFCLI Lab.pdf      <https://www.youtube.com/watch?v=3rOvIfXH8Yk>

## *Section 3: Implementing Cloud Ready Applications*

- a. Understand how to design, develop, deploy and manage a IBM Bluemix PaaS application following the Twelve-Factor App methodology

File: N/A      <https://www.youtube.com/watch?v=B-jyq7-Zvaw>

**b. Understand scaling concepts for a Cloud application and steps to scale an application in IBM Bluemix PaaS**

Files: CDC1 Application Scaling.pptx                      <https://www.youtube.com/watch?v=EtqtjuR5G54>

CDC1 App Scaling Lab.docx

CDC1 App Scaling Lab.pdf                      <https://www.youtube.com/watch?v=Pw32ma3jg0U>

**c. Debug a Cloud application using development mode of IBM Bluemix PaaS**

Files: CDC1 App Debugging in Bluemix.pptx                      <https://www.youtube.com/watch?v=FxPbAeWRIRY>

CDC1 Bluemix Debug Lab.docx

CDC1 Bluemix Debug Lab.pdf                      <https://www.youtube.com/watch?v=q0P4FKRKmic>

**d. Perform load testing on Cloud applications using simulated loads and describe the benefits of load testing**

File: CDC1 Load Testing.pptx                      <https://www.youtube.com/watch?v=M7HFXEQT0rk>

[https://www.youtube.com/watch?v=Tk2jgK\\_z028](https://www.youtube.com/watch?v=Tk2jgK_z028)

**e. Explain various methods to monitor an application in IBM Bluemix PaaS**

Files: CDC1 App Monitoring.pptx                      <https://www.youtube.com/watch?v=7MLDGyFvK8s>

<https://www.youtube.com/watch?v=EDqClK4x-hY>

CDC1 App Monitoring Lab.docx

CDC1 App Monitoring Lab.pdf

## ***Section 4: Enhancing Cloud Applications using Managed Services***

**a. Improve performance and scalability of IBM Bluemix PaaS applications with caching**

Files: CDC1 Enhance Caching.pptx                      <https://www.youtube.com/watch?v=u2voDKAp6rI>

CDC1 Cache Services Lab.doc

CDC1 Cache Services Lab.pdf                      <https://www.youtube.com/watch?v=QU6UIQTFBjY>

**b. Understand how to configure external authentication for IBM Bluemix PaaS web applications with the Single Sign On service (SSO)**

Files: CDC1 External Authentication.pptx                      <https://youtu.be/D5ujtw6XYC4>

<https://www.youtube.com/watch?v=hwwkG085TbI>

CDC1 External Auth Lab.doc

CDC1 External Auth Lab.pdf

**c. Enable loosely coupled integration for IBM Bluemix PaaS applications and components by using Messaging Services**

Files: CDC1 Messaging In Cloud.pptx      <https://www.youtube.com/watch?v=RRD9GqKlxi0>  
CDC1 Messaging Lab.docx  
CDC1 Messaging Lab.pdf      <https://www.youtube.com/watch?v=fji76cTPH28>

**d. Describe cognitive capabilities to process unstructured data and images in IBM Bluemix PaaS**

Files: CDC1 Using Cognitive API.pptx      <https://www.youtube.com/watch?v=TQuNuDLJE2M>  
CDC1 Cognitive Lab.pdf      <https://www.youtube.com/watch?v=rcG2yIGW-ic>

**e. Understand how to store and retrieve files using the IBM Object Storage service in Bluemix**

Files: CDC1 Object Storage.pptx      <https://www.youtube.com/watch?v=KtdM8yuubJE>  
CDC1 Object Storage Lab.docx  
CDC1 Object Storage Lab.pdf

## ***Section 5: Using DevOps Services & tools to Manage Cloud Applications***

**a. Describe capabilities of IBM Bluemix DevOps Services**

File: CDC1 DevOps Services Capabilities.pptx      <https://www.youtube.com/watch?v=1pJrWXX7sqM>

**b. Plan and track work for agile team collaboration**

File: CDC1 DevOps Track and Plan.pptx      [https://www.youtube.com/watch?v=Se\\_PHD8jk5A](https://www.youtube.com/watch?v=Se_PHD8jk5A)

**c. Edit and debug Cloud applications using IBM Bluemix DevOps Services Web code editor**

File: CDC1 DevOps Web Editor.pptx      <https://www.youtube.com/watch?v=dhg3fimRMnA>  
CDC1 DevOps Web Editor Lab.docx  
CDC1 DevOps Web Editor Lab.pdf      <https://www.youtube.com/watch?v=RVP6yZ3E-Zw>

**d. Understand capabilities of IBM Bluemix DevOps services source code management for projects**

Files: CDC1 DevOps SCM.pptx      <https://www.youtube.com/watch?v=Mom6eM-Zodg>  
CDC1 DevOps SCM Lab.docx  
CDC1 DevOps SCM Lab.pdf      <https://www.youtube.com/watch?v=3kWf7PN7XSw>

**e. Describe how use the to Build & Deploy option to manage continuous integration and continuous delivery**

Files: CDC1 DevOps Delivery Pipeline.pptx      [https://www.youtube.com/watch?v=q5DH-8O\\_K70](https://www.youtube.com/watch?v=q5DH-8O_K70)  
CDC1 DevOps Delivery Pipeline Lab.docx  
CDC1 DevOps Delivery Pipeline Lab.pdf      <https://www.youtube.com/watch?v=7grZiT8gybU>

## ***Section 6: Using Data Services***

**a. Describe the different types of data services available in IBM Bluemix PaaS**

File: CDC1 Bluemix Data Services.pptx

<https://www.youtube.com/watch?v=0NncaEp6GH8>

**b. Describe the unique features of IBM Bluemix PaaS data services**

File: CDC1 Data Services Features.pptx

<https://www.youtube.com/watch?v=8jMRrArX5R0>

**c. Manage instances of IBM Bluemix PaaS data services: Cloudant NoSQL Database, dashDB, and SQL Database.**

Files: CDC1 Manage Data Services Instances.pptx

<https://www.youtube.com/watch?v=Nsn80crmHjA>

<https://www.youtube.com/watch?v=mO1TVTWVYR4>

CDC1 Data Services Lab.docx

CDC1 Data Services Lab.pdf

**d. Describe the IBM DataWorks service for Bluemix.**

Files: CDC1 Manage DataWorks Instances.pptx

<https://www.youtube.com/watch?v=JwYOXVhfPeE>

<https://www.youtube.com/watch?v=1uruoVN2iqg>

CDC1 DataWorks Lab.docx

CDC1 DataWorks Lab.pdf