
Exercise 0. Setting up your hands-on environment

Estimated time

01:00

Overview

This exercise guides you through the setup of your workstation before you perform the exercises in this course.

Introduction

Before you can perform the exercises in this course, you have to set up your environment. This includes creating an account on IBM Cloud and setting up your workstation with the tools that you need to perform the exercises.

Exercise instructions

In this exercise you will complete the following tasks:

- ___ 1. Create a free IBM Cloud account (IBM Cloud Lite account).
- ___ 2. Request for an IBM Cloud Promo code
- ___ 3. Apply a feature code to your IBM Cloud Lite account
- ___ 4. Install IBM Cloud CLI.
- ___ 5. Download and install Postman.
- ___ 6. Install the Kubernetes CLI.
- ___ 7. Install the IBM Cloud Container Registry plug-in.
- ___ 8. Install the IBM Cloud Kubernetes Service plug-in.
- ___ 9. Install the IBM Cloud developer tools CLI plug-in.

Part 1. Creating a free IBM Cloud account (IBM Cloud Lite account)

In this part you will create an IBM Cloud Lite account. This account gives you access to the IBM Cloud resources you need to perform the exercises. This account will never expire so you can continue using it after the class. For more information about IBM Cloud Lite account see [Introducing the IBM Cloud Lite account](#).

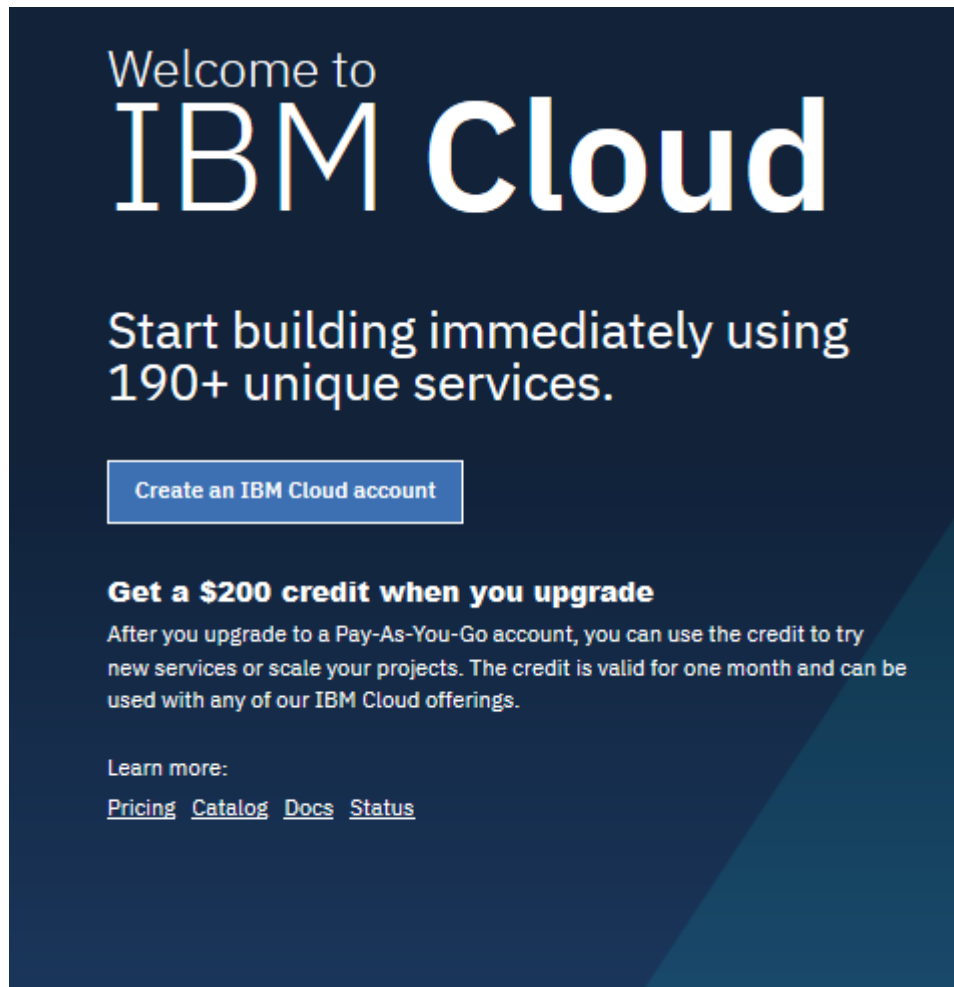
Note: If you already have an IBM Cloud account skip to Part 2. Request for an IBM Cloud Promo code

You need to register with IBM Cloud by providing a valid email address. Your email address acts as your user name for IBM Cloud, and you provide a password for it. The email address that you use to register with IBM Cloud and the password that you provide on registration, will also become your **IBM ID**. You can use this IBM ID to log in to other IBM web sites that require you to enter your IBM ID and password.

When you sign up to IBM Cloud, you will be prompted for your demographic information (such as your name and company). An email is sent to the email account that you provide in the registration to confirm that your email account is valid and active.

Perform the following steps:


- ___ 1. Go to the IBM Cloud website <https://cloud.ibm.com/login>




- ___ 2. Click **Create an IBM Cloud account**.
- ___ 3. You will be presented with a form, fill it out with your personal information.

Note: You must use a valid email for signing up to IBM Cloud; IBM Cloud sends you an email to verify your account.


Already have an IBM Cloud account? [Log in](#)

Email* 


valid_email@hotmail.com


First Name* 


Valid


Last Name* 

Email

Country or Region* 

United States 

Password* 

•••••••••••••••• 

IBM may use my contact data to keep me informed of products, services and offerings:

☐ by email.

You can withdraw your marketing consent at any time by sending an email to netsupp@us.ibm.com. Also you may unsubscribe from receiving marketing emails by clicking the unsubscribe link in each such email.

More information on our processing can be found in the [IBM Privacy Statement](#). By submitting this form, I acknowledge that I have read and understand the IBM Privacy Statement.

I accept the product [Terms and Conditions](#) of this registration form.

[Create Account](#)

Important: If you already have an IBM ID associated with your email, you will see the following form instead of the one shown in the previous figure:

Already have an IBM Cloud account? [Log in](#)

Email*



preciousiiel@gmail.com

This email address is associated with an IBMId. Clicking 'Create Account' will allow you to login to IBM Cloud using the existing IBMId.

IBM may use my contact data to keep me informed of products, services and offerings:

☐ by email

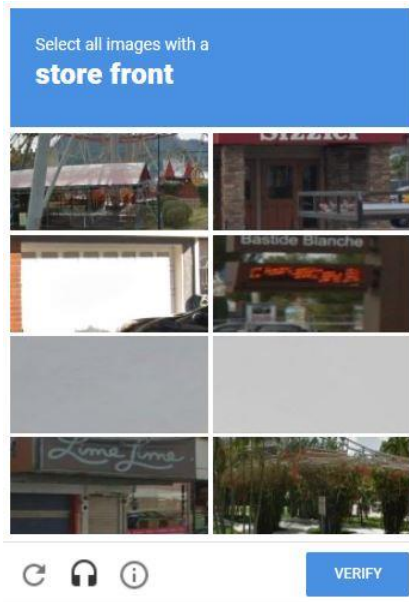
You can withdraw your marketing consent at any time by sending an email to netsupp@us.ibm.com. Also you may unsubscribe from receiving marketing emails by clicking the unsubscribe link in each such email. More information on our processing can be found in the [IBM Privacy Statement](#).

By submitting this form, I acknowledge that I have read and understand the IBM Privacy Statement. I accept the product [Terms and Conditions](#) of this form.

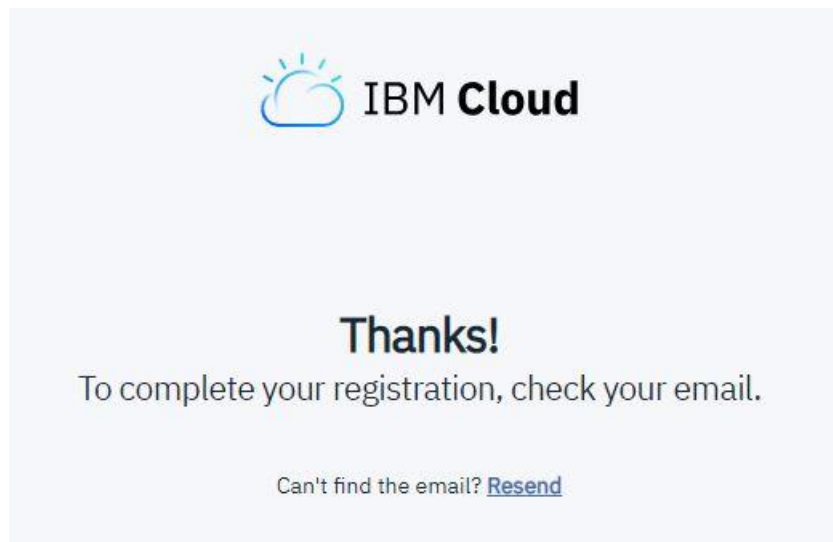
Create Account

If you already have an IBM Cloud account, click **Log in** to verify that you can access IBM Cloud.

- ___ 4. Click **Create Account**.
- ___ 5. You will be asked to identify images to ensure that you are a real person.



___ 6. After you finish the verification tasks, you will be redirected to a page similar to this figure.

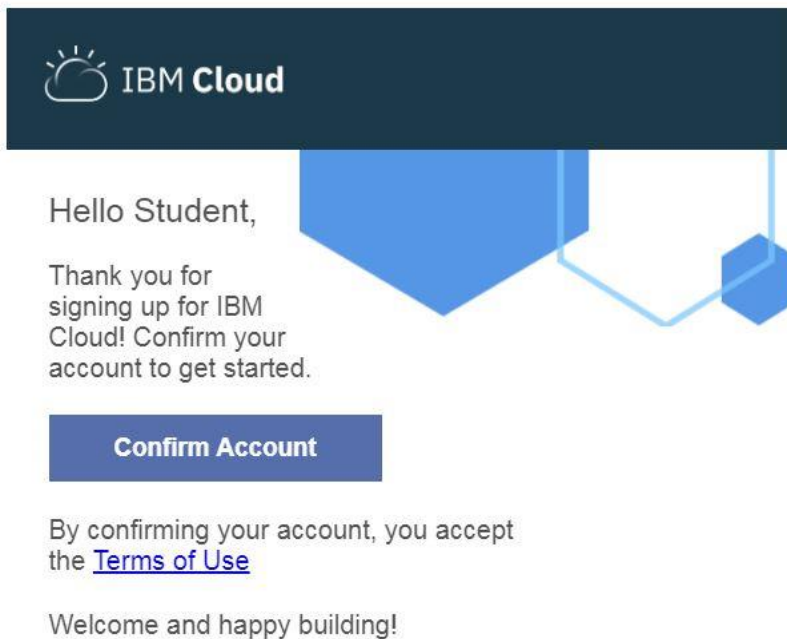


___ 7. Check your email at the account that you used to sign up to IBM Cloud. You will receive an email similar to the one shown.

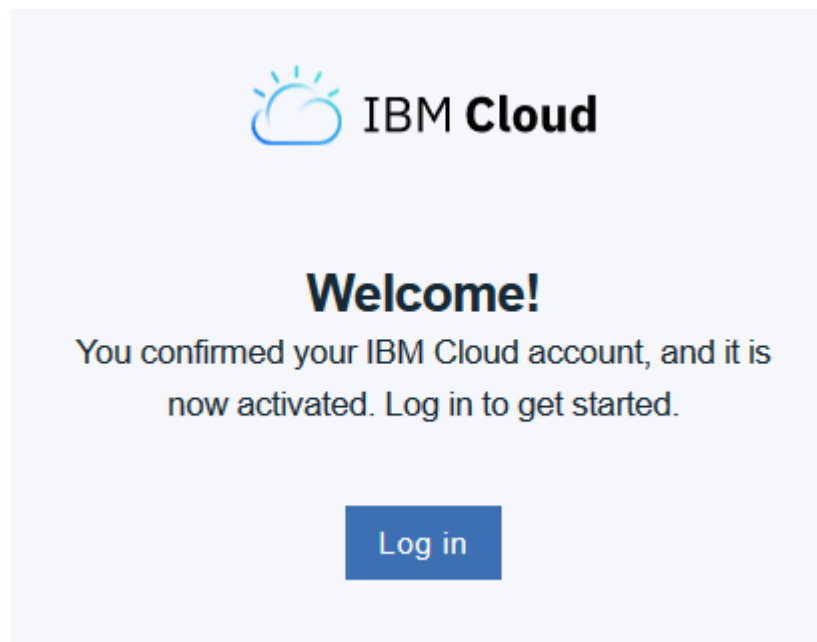
Important: You must complete the registration by accessing your email, otherwise you will not be able to log in to IBM Cloud.

___ 8. Click **Confirm Account**.

Action required: Confirm your IBM Cloud account



- ___ 9. The IBM Cloud Welcome! page is displayed confirming that you have now activated your IBM Cloud account.



- ___ 10. You have now successfully signed up for an IBM Cloud account. You are ready to log in to IBM Cloud when directed to do so by the exercises in this course.
- ___ 11. Confirm that you can log in to IBM Cloud.

- ___ a. Go to [IBM Cloud](#) and click **Log in**.
- ___ b. Enter the email and password that you used to register to IBM Cloud. You should be able to access the environment.
- ___ c. Review the IBMid Account Privacy and click **Proceed**.

Your rights

Our [Privacy Statement](#) provides more information about your personal data rights. It also provides contact information if you have questions or concerns regarding our handling of your personal data.

Acknowledgement

I acknowledge that I understand how IBM is using my Basic Personal Data and I am at least 16 years of age.

Proceed

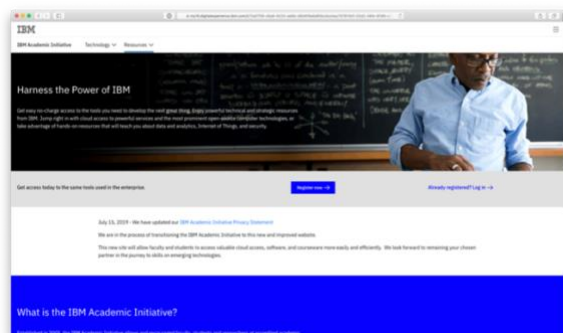
Cancel Sign In

You have now successfully signed up for an IBM Cloud account. You are ready to log in to IBM Cloud when directed to do so by the exercises in this course. Close your browser.

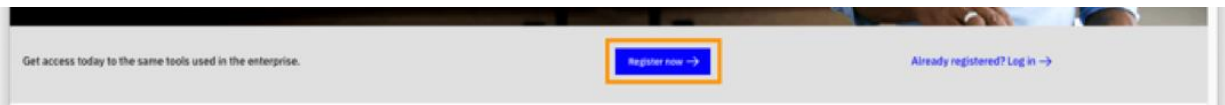
Part 2. Requesting for a Cloud Promo code

Note: If you already have an IBM Cloud account skip to Part 2. Request for an IBM Cloud Promo code

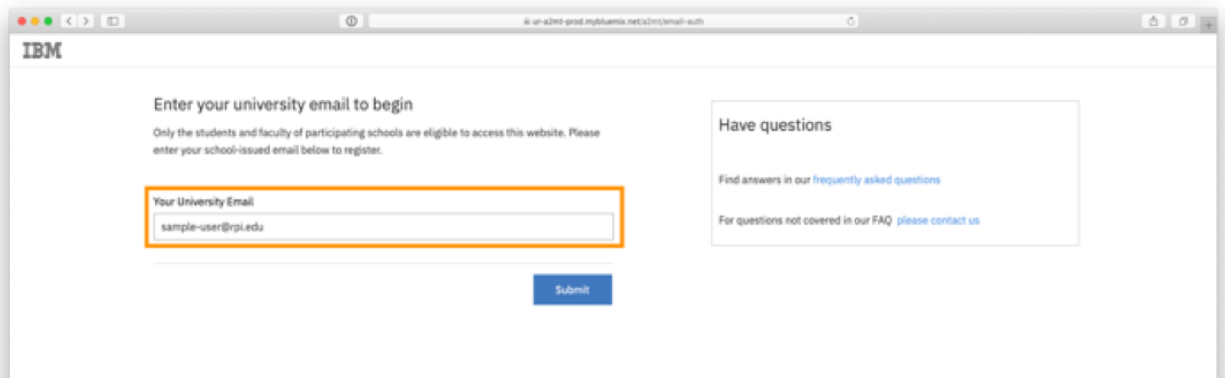
- ___1. Open the IBM Academic Initiative website: ibm.biz/academic in a web browser.



__2. Click the *Register Now* button



__3. Enter your academic institution issued email address. Note that you must use a **valid university issued email address**. Gmail, Ymail, and Hotmail is **not supported** at the moment.



- __a. If you already have an IBMid with the academic institution issued email address you will be asked to login with that account at this time. **Skip to Step 7.**
 - __b. If you **do not** have an IBMid with the academic institution issued email address you will be asked to create one at this time. **Complete Step 4 to Step 5** below.
- __4. Fill in the required information to create an IBM ID.

 A screenshot of the IBM Academic Access Management Tool registration form. The form is titled "Academic Access Management Tool" and "Harness the Power of IBM". It includes fields for "Email" (with a sample address), "First name", "Last name", "Country or region" (a dropdown menu showing "United Arab Emirates"), and "Set a password" (with a strength indicator). Below these fields are checkboxes for "I agree to the IBM Privacy Statement" and "I accept the product Terms and Conditions of this registration form". A blue "Continue" button is at the bottom. The footer contains links for "Contact", "Privacy", "Terms of use", "Accessibility", and "Cookie preferences".

__5. Review our privacy statements and click **Proceed**

About your IBMid Account Privacy

This notice provides information about accessing your IBMid user account (Account). If you have previously been presented with a version of this notice, please refer to "Changes since the previous version of this notice" below for information about the new updates.

+ Changes since the previous version of this notice

+ What data does IBM collect?

+ Why IBM needs your data

+ How your data was obtained

+ How IBM uses your data

+ How IBM protects your data

+ How long we keep your data

+ Your rights

I acknowledge that I understand how IBM is using my Basic Personal Data and I am at least 16 years of age.

Proceed

6. Verify your email address

Academic Access Management Tool

Harness the Power of IBM

Get easy no-charge access to the tools you need to develop the next great thing. Enjoy powerful technical and strategic resources from IBM.

Jump right in with cloud access to powerful services and the most prominent open-source computer technologies, or take advantage of hands-on resources that will teach you about data and analytics, Internet of Things, and security.

← Back Step 2/2

Check your email

For your security, we need to verify your identity. We sent a 7-digit code to **al*****@jkuat.ac.ke**. Please enter it below.

Enter 7 digit code

Verify

Didn't receive the email? Check your spam filter for an email from **ibmacct@iam.ibm.com**.

[Resend code](#)

7. Select whether you are a student or faculty member. Failing to select the right role will result in being locked out of the Academic Initiative, and you will be unable to use its services.

Register Below

Complete the information below to register. In addition to the forms below you will need to register for an IBM ID to enroll in the program.

Your University Email: **sample.user@jku.ac.ke**

University Name: **Kenya Methodist University**

Select role

☒ Student

☐ Faculty

Current Degree: **Select** Degree: **Select**

Expected Graduation Date: **Select** **Select**

Department: **Select**

Please click on the links to read and accept the program agreement and privacy statement

☐ I Agree to the Academic Initiative Terms of Service

☐ I Agree to the Privacy Statement

Enroll me in the IBM badge program. What is first?

[Yes](#)

Have questions

Find answers in our [frequently asked questions](#)

For questions not covered in our FAQ [please contact us](#)

__8. Fill in the required information

The image shows two overlapping screenshots of a web form titled "Register Below". The form is for registering for an IBM ID to enroll in a program. It includes fields for "Your University Email", "University Name", "Select one" (Student or Faculty), "Current Degree", "Sought Degree", "Expected Graduated Date", and "Department". There are also checkboxes for "I Agree to the Academic Initiatives Terms of Service" and "I Agree to the Privacy Consent". A "Have questions" section is on the right. The left screenshot shows the "Student" radio button selected, and a red box highlights the degree and department fields. The right screenshot shows the "Faculty" radio button selected, and a red box highlights the degree and department fields.

__9. You will need to click on the **Terms of Service** and **Privacy Consent** links and read them, and then click on **Agree**. The corresponding boxes then will be ticked once completed.

The image shows a screenshot of the "Register Below" form. The form is for registering for an IBM ID to enroll in a program. It includes fields for "Your University Email", "University Name", "Select one" (Student or Faculty), "Current Degree", "Sought Degree", "Expected Graduated Date", and "Department". There are also checkboxes for "I Agree to the Academic Initiatives Terms of Service" and "I Agree to the Privacy Consent". A "Have questions" section is on the right. A red box highlights the "I Agree to the Academic Initiatives Terms of Service" and "I Agree to the Privacy Consent" links, with a red arrow pointing to them and the text "Click on URLs".

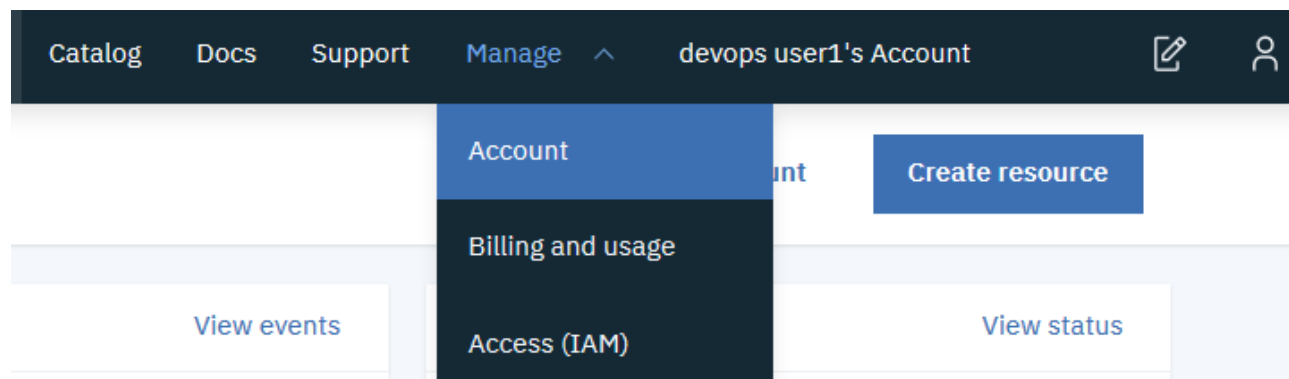
__10. Click **Register**

Part 3. Applying a feature code to your IBM Cloud Lite account

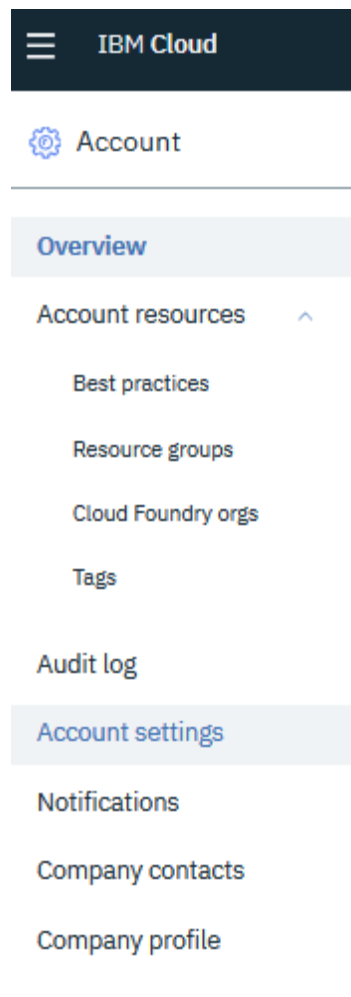
You can use the promo code (also known as *feature code*) provided to students of this course to unlock extra resources or capabilities that are not available in the standard IBM Cloud Lite account.

Follow these steps to apply a feature code to your IBM Cloud account:

- ___ 1. Log in to [IBM Cloud](#)
- ___ 2. In the top navigation click **Manage > Account**.



- ___ 3. Click **Account settings**.



___ 4. Under Subscription and Feature Codes, click **Apply Code**.

Account
DevOps User2's Account
ID: 94b7467984754e85bdb45337b57f84cf

Account Type
Lite (Free)

256 MB of free memory each month, free Lite plan services to choose from, and easy to upgrade when you're ready for more.

Account upgrade

Pay-As-You-Go
Add your credit card to unlock the full power of IBM Cloud with a Pay-As-You-Go account. You'll still be eligible for free runtime and service allowances, and you'll be charged only for paid services that you use.
[Add credit card](#)

Subscription
Get discounted pricing and increased billing predictability when you commit to a set amount of usage over time.
[Upgrade](#)

Need help?
[Contact sales](#)

Subscription and feature codes
Subscription codes add platform and support credit for your purchased subscriptions. Feature codes unlock additional IBM Cloud capabilities for your account. Each code can be applied only once.
[Apply code](#)

5. Enter the feature code (also known as promo code) that was provided to you for this course and click **Apply**.

Apply a code

Enter a code to apply subscription credit or extra capabilities to your account.

You can apply each code to only one IBM Cloud account, and the code cannot be removed after it's applied.

Apply a code

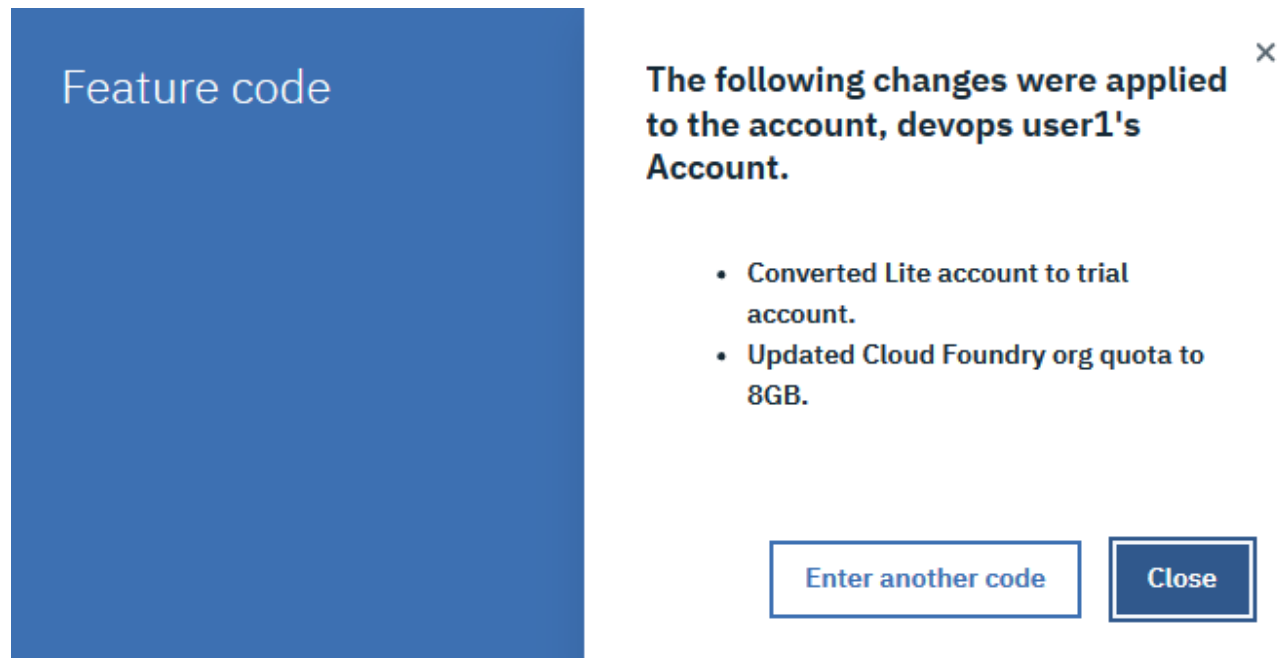
42ef67f5591dbf4b8a378330220e5dbc

The code will be applied to the account: **DevOps User2's Account**

[Cancel](#) [Apply](#)

Information: This feature code will add extra capabilities to your IBM Cloud Lite account. You can apply a feature code to only one IBM Cloud account, and the code cannot be removed after it is applied.

- ___ 6. A window listing the changes to your account as a result of applying the feature code is displayed. Click **Close**.



Part 4. Installing IBM Cloud CLI

In this part, you install IBM Cloud CLI on your workstation. To install IBM Cloud CLI for 64-bit Windows and 64 -bit MacOS platforms, complete the following steps. For other platforms, go to <https://cloud.ibm.com/docs/cli?topic=cloud-cli-install-ibmcloud-cli>.

- ___ 7. Download the installer:
- ___ a. For 64-bit Windows, download the installer from this link:
<https://clis.cloud.ibm.com/download/bluemix-cli/latest/win64>
 - ___ b. For 64-bit MacOS, download the installer from this link:
<https://clis.cloud.ibm.com/download/bluemix-cli/latest/osx>
- ___ 8. Run the installer.
- ___ 9. After the installation finishes, run the following command to verify the installation:

```
ibmcloud --version
```

The version of the installed IBM Cloud CLI is shown as in the following figure.

```
C:\IBM-Cloud>ibmcloud --version
ibmcloud version 0.15.0+1bfd374-2019-04-01T02:34:48+00:00
```

Part 5. Downloading and installing Postman

Postman is an application for interacting with HTTP APIs. It presents you with a GUI for constructing requests and reading responses. In this part, you download and install the Postman.

- ___ 1. Open the following link in your web browser:
<https://www.getpostman.com/downloads/>
- ___ 2. Download the installer that is compatible with your operating system. In the following figure, Windows is chosen.



- ___ 3. After the installer is downloaded, open it and follow the wizard to install it on your workspace.

Part 6. Downloading and installing cURL

cURL is a command-line tool for transferring data by using various protocols. One of the most popular protocols is HTTP, which is used to receive information from or upload data to web servers.

You might have to use cURL to install some of the tools that are required by the exercises such as IBM Cloud CLI.

Part 7. Checking whether cURL is already installed

Perform the following steps to check whether cURL is already installed in your workstation:

- ___ 1. Open a command line (Windows) or terminal (MacOS)
- ___ 2. Type `curl -V` and press **Enter**. If the response is similar to the following figure, cURL is already installed in your workstation.


```
C:\>curl -U
curl 7.61.0 (x86_64-pc-win32) libcurl/7.61.0 OpenSSL/1.1.0h (WinSSL) zlib/1.2.11
  brotli/1.0.5 WinIDN libssh2/1.8.0 nghttp2/1.32.0
Release-Date: 2018-07-11
Protocols: dict file ftp ftps gopher http https imap imaps ldap ldaps pop3 pop3s
rtsp scp sftp smb smbs smtp smtps telnet tftp
Features: AsynchDNS IDN IPv6 Largefile SSPI Kerberos SPNEGO NTLM SSL libz brotli
TLS-SRP HTTP2 HTTPS-proxy MultiSSL
```

Part 8. Installing CURL

If cURL is not already installed, download the version of cURL for your operating system from <https://curl.haxx.se/download.html>.

Part 9. Installing the Kubernetes CLI

The prefix for running commands by using the Kubernetes CLI is `kubectl`.

To install `kubectl`, select the appropriate installer for your OS from the following link and install it:

<https://kubernetes.io/docs/tasks/tools/install-kubectl/>

Note: After installing `kubectl`, add the directory where `kubectl` is installed to the PATH environment variable

Note: If you want to update `kubectl` to get the latest stable version, follow the same installation steps.

Part 10. Installing the IBM Cloud Container Registry plug-in

Run the following command to install the IBM Cloud Container Registry plug-in:

```
ibmcloud plugin install container-registry
```

Run `ibmcloud plugin show container-registry` to show its details.

Part 11. Installing the IBM Cloud Kubernetes Service plug-in

Run the following command to install the IBM Cloud Kubernetes Service plug-in: Cloud Kubernetes Service plug-in by running the following command:

```
ibmcloud plugin install kubernetes-service
```

Run `ibmcloud plugin show container-service` to show its details.

Part 12. Installing the IBM Cloud developer tools CLI plug-in

You can use the IBM Cloud developer tools CLI commands to create an application, manage, deploy, debug, and test it.

To install the IBM Cloud developer tools plug-in, run the following command:

```
ibmcloud plugin install dev
```

Run `ibmcloud plugin show dev` to show its details.

Part 13. Creating a Kubernetes cluster (Exercise 5)

Important: It takes about 20 minutes to provision a cluster. Exercise 5 Part 1 should be started during the lecture or before a break.

End of exercise

Exercise review and wrap-up

After completing this exercise you have your environment ready to start working on the classroom exercises in this course. You obtained an IBM Cloud Lite account. You downloaded and installed all the tools that you need to use in the classroom exercises.