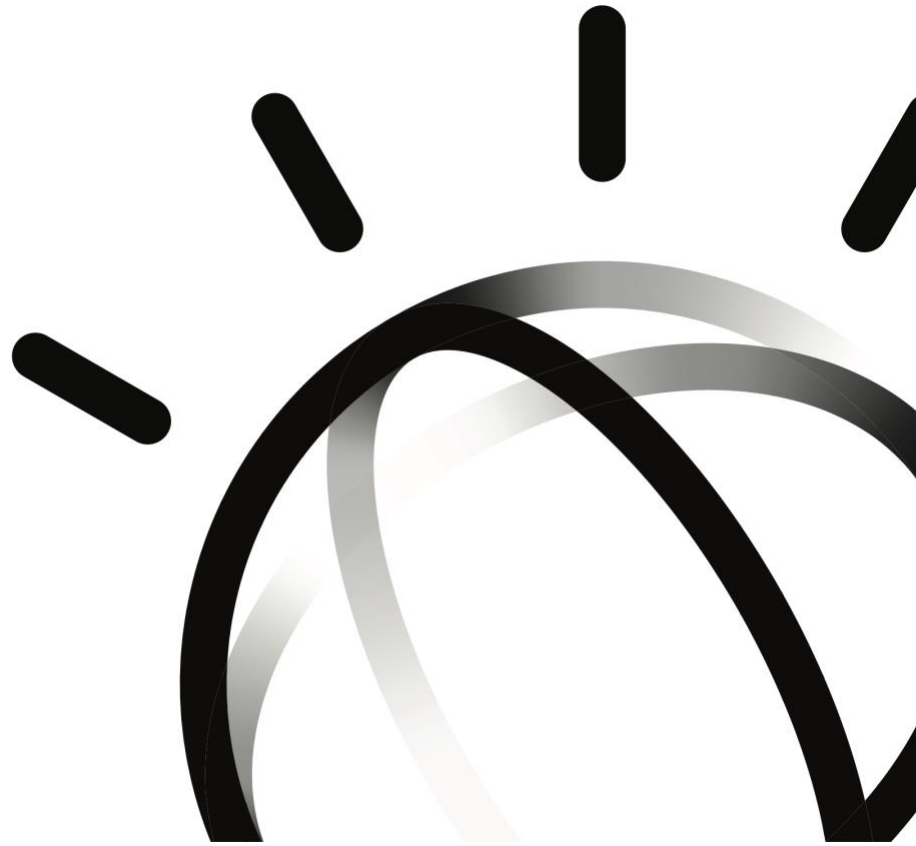


# IBM Watson Workshop

## Building Apps and Augmenting them with Cognitive Services



Prepared by Armen Pischdotchian

## Pre-requisite Downloads for the Workshop

## Overview

As you begin your journey into the IBM Developer Cloud, IBM's premier platform as a service (PaaS) where all services reside, take a moment and watch the following videos. It will give you a good idea of IBM's platform and the type of work you will be doing in the up-coming exercises.

- [Introductory tour of IBM Cloud](#)
- [IBM Cloud developer experience](#)

This document is a pre-requisite for the workshops, some of which require several software downloads that you will need before you begin to work on the exercises included in the [IBM Watson Academic Engagements](#) web site.

## Prerequisite

In this section, you will set up the artifacts that you need to run the hands-on labs in the [IBM Watson Academic Engagements](#) web site. Estimated time required to complete the pre-requisites: 1 hour.

You must complete the following tasks:

- Setup your IBM Cloud account
- Initialize your IBM Cloud account
- Install Node.js runtime
- Install the Cloud Foundry command line (CLI)
- Install Git GUI client
- Install cURL
- Install code-friendly text editor (either Notepad++ or Sublime)

Not all exercises will require the downloads listed above. For example, the **Face Recognition** app requires zero downloads, merely a PDF document.

The **Train Your Custom Images** workshop is the only one that requires cURL download.

All other workshops require node.js and the CLI command line.

Having a code-friendly text editor and Git GUI is typically a must-have for any development work. You may or may not use it in all the workshops.

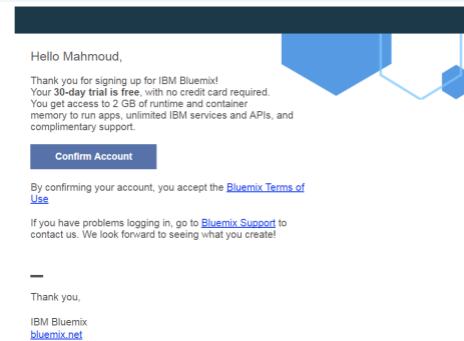
## Setup your IBM Cloud Account

You begin by registering with IBM Cloud providing a valid, unique email address. Your email address acts as your user name for IBM Cloud, and you provide a password for it. When you sign up for 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.

Complete the following steps:

1. Open the IBM Cloud website: <https://console.bluemix.net/> in a web browser.
2. Click **Create a free account**.
3. Fill out the form with your personal information. Note that you must use a valid email address, because IBM Cloud sends you an email to verify your account.
4. Click **Create Account**.

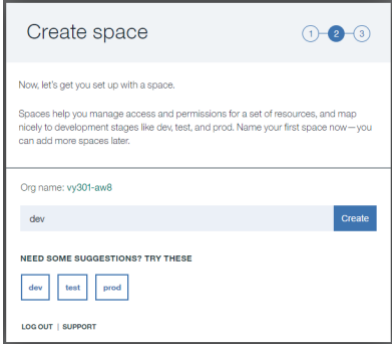
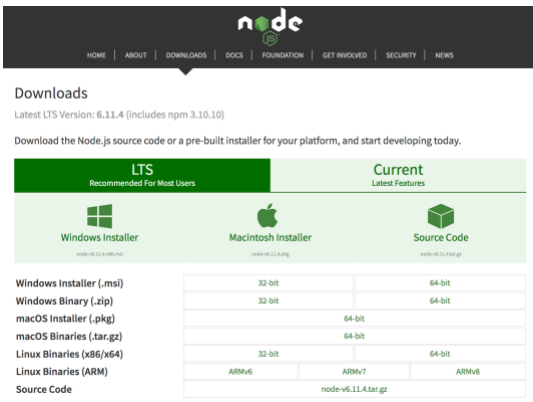
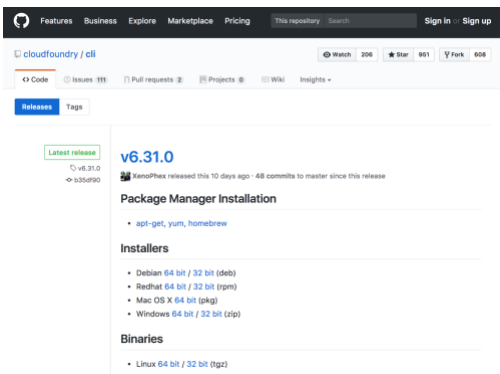
5. Check your email at the account that you used to sign up to IBM Cloud.
6. Log in back into your IBM Cloud account: <https://console.bluemix.net/>



## Initialize your IBM Cloud account

The first time you log in, you will be prompted to create a IBM Cloud organization. Each user must have a *unique* organization name within IBM Cloud. Select either of the suggested names such as your short email name or the entire email address. Alternatively, you can specify a unique name of your choosing. To initialize your IBM Cloud account, complete the following steps:

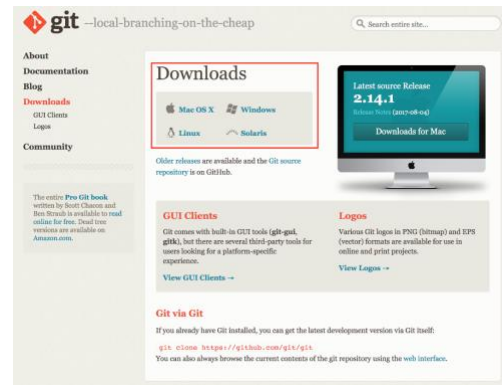
1. Use the naming convention to enter your organization name, by selecting either of the suggested choices, or type in your own organization name.
2. An organization is the highest concept. When you create an account, you obtain your own "organization." You can invite others to your organization, or get invited to join other organizations.
3. Click **Create**.

<ol style="list-style-type: none"> <li>After you create an organization, IBM Cloud requires you to create a space within the organization. Spaces must have unique names within an organization, but multiple organizations can have spaces with the same name. Use the suggested naming convention, and per this example, select <b>dev</b> as your space name.</li> <li>Spaces are used to group related apps and services together. There can be multiple spaces within an organization. When an app or service is created, you must assign a space.</li> <li>Click <b>Create</b>.</li> <li>After you create a space, you will see a page indicating that your IBM Cloud organization is ready to use. Click <b>I'm Ready</b>.</li> </ol>	
<h3>Install the Node.js runtime</h3> <p>The default installation includes both the runtime and package manager. Make sure to include the installed binaries on your PATH environment variable after installation (typically, the default installation locations that the installer selects does the inclusion).</p>	
<ol style="list-style-type: none"> <li>Direct your browser to the nodejs.org web site: <a href="https://nodejs.org/en/download/">https://nodejs.org/en/download/</a></li> <li>Select the installed option (not the binaries) that is appropriate for your operating system.</li> <li>Extract the downloaded file and navigate through the wizard to install the application.</li> </ol>	
<h3>Install the Cloud Foundry command line</h3> <p>To interact with Cloud Foundry and apps under development, one needs the Cloud Foundry CLI (Command Line Interface). Perform the following steps to install the Cloud Foundry (cf) command line on your workstation.</p>	
<ol style="list-style-type: none"> <li>Direct your browser to the GitHub repository: <a href="https://github.com/cloudfoundry/cli/releases">https://github.com/cloudfoundry/cli/releases</a></li> <li>Select the installers (not the binaries) as appropriate for your operating system.</li> <li>Download the installer and navigate through the installation wizard.</li> </ol>	

## Download the Git GUI client

Git-GUI is a portable graphical interface to Git allowing users to make changes to their repository by making new commits, amending existing ones, creating branches, performing local merges, and fetching/pushing to remote repositories. Since the code for most of the workshops resides on Git repositories, then it would be good for users to have the GUI installed for easier access to those repositories without having to use command line. Complete the following steps:

1. Direct your browser and download the OS-specific tool from  
<https://git-scm.com/downloads>
2. Download the installer appropriate to your operating system
3. Run the installer
4. Follow the steps on the installer UI selecting the default options.



## Install cURL

**cURL** is a tool to transfer data from or to a server, using one of the supported protocols (HTTP, HTTPS, FTP, FTPS, SCP, SFTP, TFTP, DICT, TELNET, LDAP or FILE). The command is designed to work without user interaction.

To check whether cURL is installed, follow these steps (It typically is on Mac but not on PC).

1. Open a command line (Windows) or terminal (MacOS)
2. Type `curl -V` and press enter

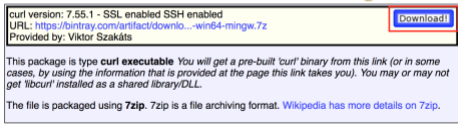

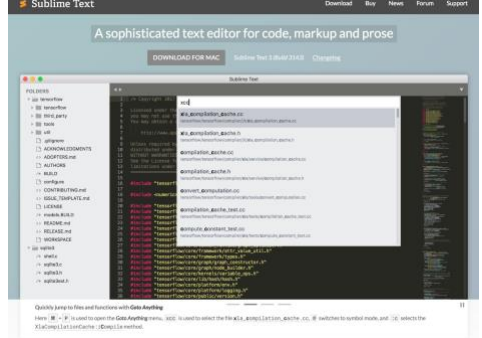
If you see a response that includes a version number (as show to the right), then you already have cURL installed on your computer. Skip this section.

```
curl 7.51.0 (x86_64-apple-darwin16.0) libcurl/7.51.0 SecureTransport zlib/1.2.8
Protocols: dict file ftp ftps gopher http https imap imaps ldap ldaps pop3 pop3s
rtsp smb smbs smtp smtps telnet tftp
Features: AsynchDNS IPv6 Largefile GSS-API Kerberos SPNEGO NTLM NTLM_WB SSL libz
UnixSockets
```

3. Otherwise, to install cURL, direct your browser to this link:  
<https://curl.haxx.se/dlwiz/?type=bin>

4. Choose your operating system from the drop-down menu then click **Select**.

5. You may have to select the version or CPU of your system.
6. Follow the Download Wizard prompts and select your OS-specific options.

<ol style="list-style-type: none"> <li>On the final step, make sure to select the SSL-enabled version of cURL and click <b>Download!</b></li> <li>Extract the 7zip file. You may need a tool to extract 7zip file type.</li> <li>Run the installer.</li> </ol>	<p><b>The Wizard Recommends...</b></p> <p>For Win64 on x86_64 curl executable</p>  <p>curl version: 7.56.1 - SSL enabled SSH enabled URL: <a href="https://bintray.com/artifact/download/winh64-mingw.7z">https://bintray.com/artifact/download/winh64-mingw.7z</a> Provided by: Viktor Szakats</p> <p>This package is type <b>curl executable</b> You will get a pre-built 'curl' binary from this link (or in some cases, by using the information that is provided at the page this link takes you). You may or may not get 'libcurl' installed as a shared library/DLL.</p> <p>The file is packaged using 7zip. 7zip is a file archiving format. <a href="#">Wikipedia has more details on 7zip.</a></p>
<p><b>Install code-friendly text editor.</b></p> <p>The built-in Notepad (PC) or Notes (Mac) does not allow any rich indentations of code or color highlights. Working with scripting languages typically is best done using a robust text editor such as <b>Notepad++</b> for PC and <b>Sublime</b> for Mac.</p>	
<ol style="list-style-type: none"> <li>To install Notepad++, direct your browser to this link: <a href="https://notepad-plus-plus.org/">https://notepad-plus-plus.org/</a></li> <li>Click <b>Download</b> from the left menu and select the <b>current version</b>.</li> <li>Follow the installation wizard as you accept all default settings.</li> </ol>	
<ol style="list-style-type: none"> <li>To install Sublime, direct your browser to this link: <a href="https://www.sublimetext.com/">https://www.sublimetext.com/</a></li> <li>Click the <b>DOWNLOAD FOR MAC</b> button. It generally defaults for your operating system.</li> <li>Follow the installation wizard as you accept all default settings.</li> </ol>	

Congratulation, you have installed and downloaded all the necessary software and you are now ready to begin with the workshop exercises as depicted here [IBM Watson Academic Engagements](#)