Lab 1 : Push to the Cloud

Estimated Time: 25 minutes

What you will learn

How to access Apps Manager How to install the cf CLI How to target a Pivotal Cloud Foundry instance with the cf CLI How to cf push apps

Exercises

Download the cf CLI

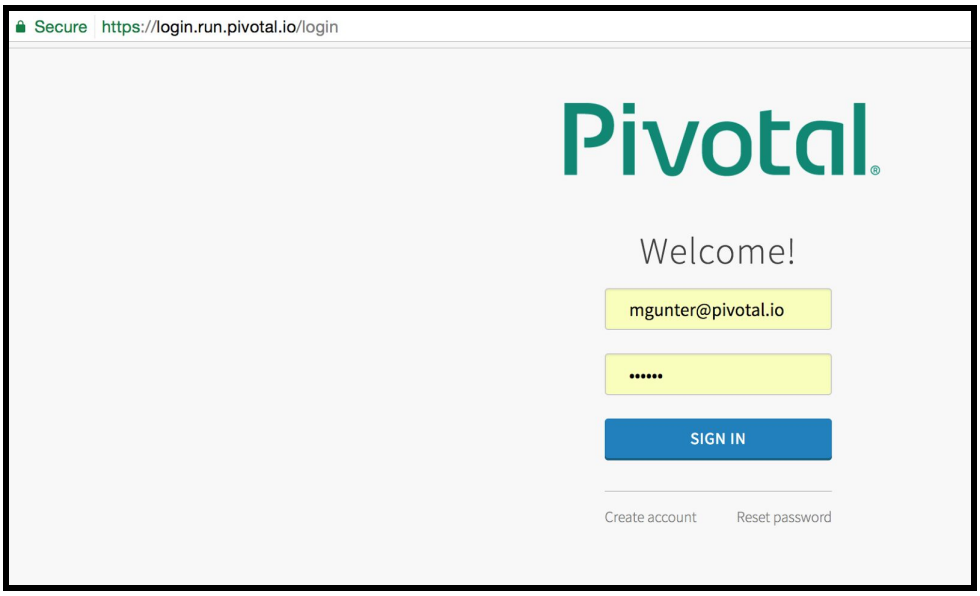
Endpoint and credential information for accessing Apps Manager will be provided by your instructor.

Apps Manager is a web application that helps you manage your applications, but it is also the place to download the cf CLI. The next set of steps walk you through just that.

1) Review the Apps Manager Documentation (https://docs.pivotal.io/pivotalcf/1-9/console/dev-console.html).

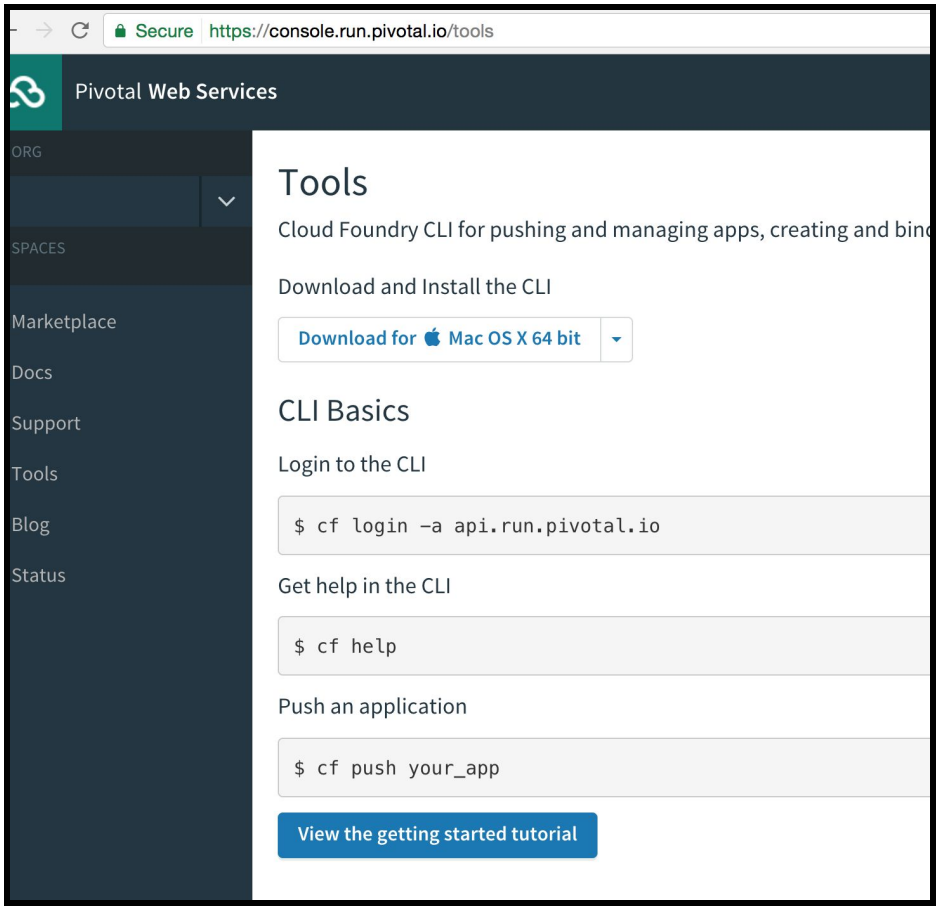
Knowing where to go for help is essential.

2) Login into Pivotal Cloud Foundry with the Apps Manager.



NOTE: It is common to use self signed certs in educational environments, but doing so will result in warnings from your browser. These warnings can safely be ignored (proceed through them).

3) Upon logging into Apps Manager for the first time you will be greeted with a welcome message that will walk you through the installation of the cf CLI.



NOTE:If you do not see this dialog, the same information can be found under Tools (Left side).

4) Download and install (http://docs.pivotal.io/pivotalcf/cf-cli/install-go-cli.html) the cf CLI for your platform.

```
MGunter-MB-Pro:DevNexus2017 mgunter$ cf
cf version 6.22.1+6b7af9c-2016-09-24, Cloud Foundry command line tool
Usage: cf [global options] command [arguments...] [command options]

Before getting started:
  config    login,l      target,t
  help,h    logout,lo

Application lifecycle:
  apps,a        logs      set-env,se
  push,p        ssh       create-app-manifest
  start,st      app
  stop,sp       env,e
```

5) Open a terminal window. Explore the cf CLI. In the terminal window type cf. Review the commands available with the cf CLI. Help on a specific command can be found using the --help option (e.g. cf login --help).

$ cf ...

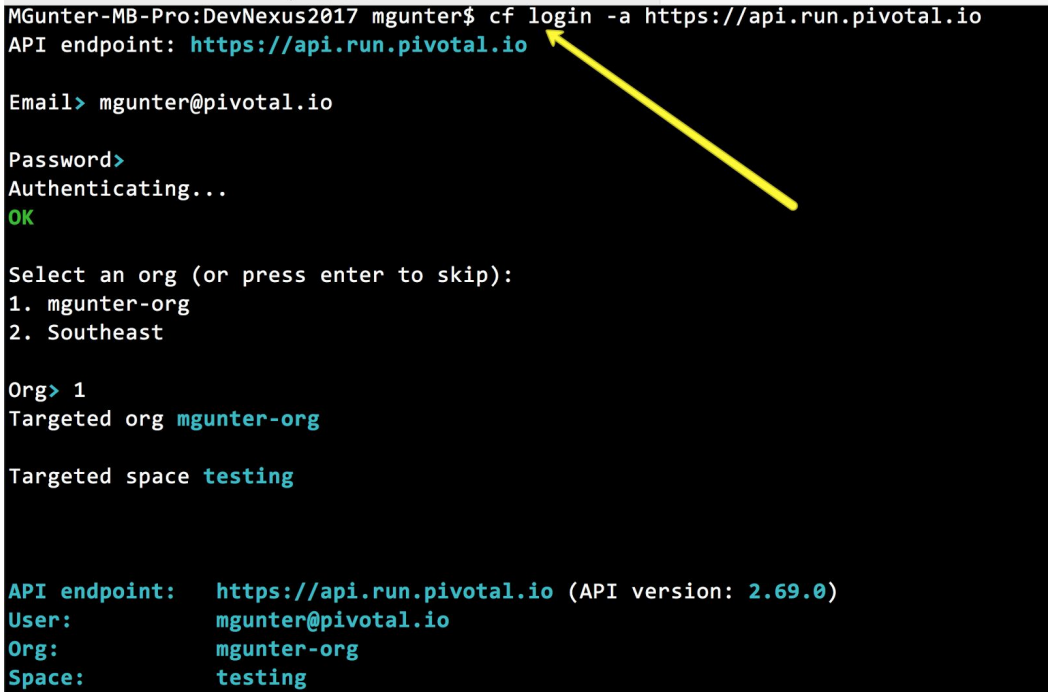
$ cf login --help

```
MGunter-MB-Pro:DevNexus2017 mgunter$ cf login -help
NAME:
   login - Log user in

USAGE:
   cf login [-a API_URL] [-u USERNAME] [-p PASSWORD] [-o ORG] [-s SPACE]

WARNING:
   Providing your password as a command line option is highly discouraged
   Your password may be visible to others and may be recorded in your shell history

EXAMPLES:
   cf login (omit username and password to login interactively -- cf will prompt for both)
   cf login -u name@example.com -p pa55woRD (specify username and password as arguments)
   cf login -u name@example.com -p "my password" (use quotes for passwords with a space)
   cf login -u name@example.com -p "\"password\"" (escape quotes if used in password)
   cf login --sso (cf will provide a url to obtain a one-time password to login)
```

Login to Pivotal Cloud Foundry with the cf CLI

1) Continue to follow directions for logging in with the cf CLI. You can copy and paste the cf login command directly from Apps Manager.

$ cf login -a <substitute the API endpoint from Apps Manager> --skip-ssl-validation


MGunter-MB-Pro:DevNexus2017 mgunter$ cf login -a https://api.run.pivotal.io
API endpoint: https://api.run.pivotal.io
Email> mgunter@pivotal.io
Password>
Authenticating...
OK
Select an org (or press enter to skip):
1. mgunter-org
2. Southeast
Org> 1
Targeted org mgunter-org
Targeted space testing
API endpoint: https://api.run.pivotal.io (API version: 2.69.0)
User: mgunter@pivotal.io
Org: mgunter-org
Space: testing

NOTE: Are SSL errors preventing you from logging in? Try adding the --skip-ssl-validation option.

2) Review your current API endpoint, user, org, and space

$ cf target

What Just Happened?

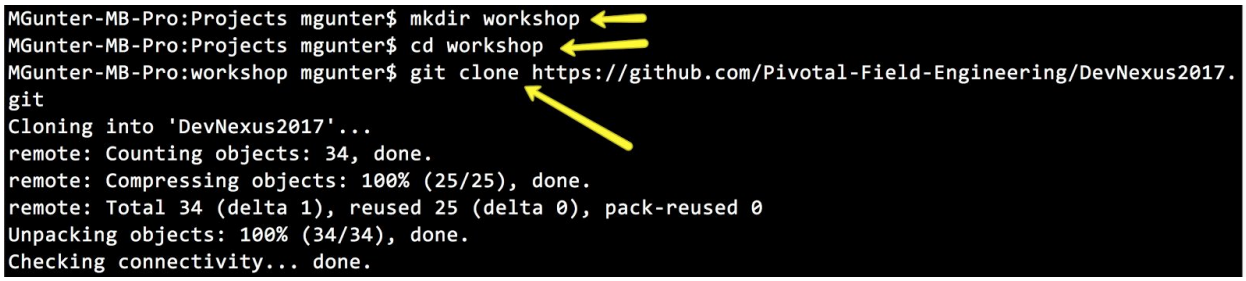
You have logged into Pivotal Cloud Foundry from two different clients (Apps Manager and the cf CLI). You have installed the cf CLI and targeted a Pivotal Cloud Foundry instance. You are ready to push apps.

Pushing apps

Next we will push (deploy) several applications.

1) Open a terminal window. Download the demo applications into a new directory using git:

Git clone https://github.com/Pivotal-Field-Engineering/DevNexus2017.git



2) 'cd' into the DevNexus2017 directory...

3) and push the node sample application

$ cd sample-apps/node

$ cf push node --random-route -m 128M

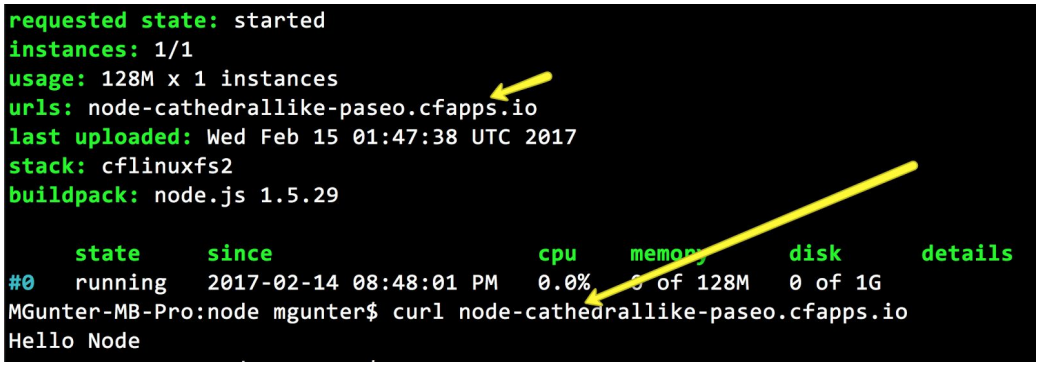
4) View the node application in your browser or use curl. The url can be obtained from the cf push output or by issuing the command cf apps.

Example:

$ curl node-northeasterly-zygoma.cfapps.io Hello Node

Example cf push commands:

cf push node --random-route -m 128M
cf push ruby --random-route -m 128M
cf push php --random-route -m 128M
cf push html --random-route -m 128M
cf push python --random-route -m 12
cf push jee --random-route -m 512M -p target/moviefun.war
cf push docker -o cloudfoundry/test-app



5) Repeat steps 3 - 4 for the php, python, and ruby applications.

NOTE: Make sure you cd into each directory before pushing.

What Just Happened?

You just deployed several applications each based on a different language and runtime. Pivotal Cloud Foundry is a polyglot platform, meaning it supports multiple languages and does so in a pluggable way (via buildpacks or Docker images)!

Questions

What are some common items in the output that occurred when pushing each application?

Explore Apps Manager

1) Review the following views:

Org

Space

App

You have interfaced with Pivotal Cloud Foudry from two separate clients (cf and Apps Manager). Many of the operations that are available in cf CLI are also available in Apps Manager.

Clean up

1) Delete the applications you just pushed.

This is very important for resource constrained environments.

```
$ cf delete node
```

Repeat for all the apps that were pushed: php, python, and ruby.

Beyond the class

Check out the Cloud Foundry sample applications (https://github.com/cloudfoundry-samples).

Spring Music (https://github.com/cloudfoundry-samples/spring-music) is a favorite.