

# Command Line Interface

Installation, help and logging in

# Overview

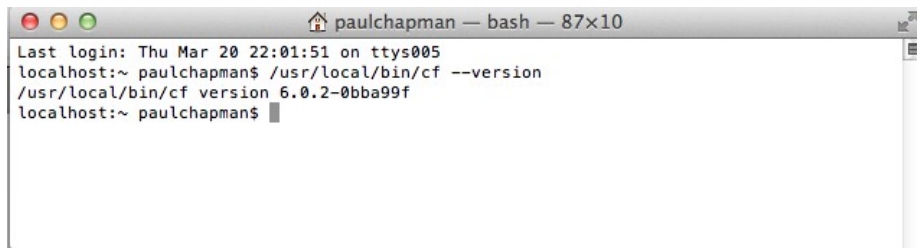
- After completing this lesson, you should be able to:
  - Install the cf Command Line Interface (CLI)
  - Get help on any cf CLI command
  - Log into the Pivotal Web Services (PWS) installation

# Topics

- **Getting Started with the Command Line Interface**
- Login to Pivotal Web Services (PWS)

# Cloud Foundry –Command Line Interface (cf CLI)

- A simple, text-based Cloud Foundry client
- Used by operators and developers to access and work with any Cloud Foundry installation
- Anything you do with the cf CLI can be scripted/automated

A screenshot of a terminal window titled 'paulchapman — bash — 87x10'. The window shows the output of the command '/usr/local/bin/cf --version', which is '/usr/local/bin/cf version 6.0.2-0bba99f'. The prompt 'localhost:~ paulchapman\$' is visible at the end of the line.

```
Last login: Thu Mar 20 22:01:51 on ttys005
localhost:~ paulchapman$ /usr/local/bin/cf --version
/usr/local/bin/cf version 6.0.2-0bba99f
localhost:~ paulchapman$
```

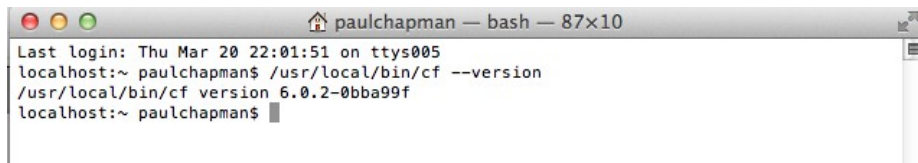
# Installing the cf CLI

- To install the cf CLI:
  - Visit <https://console.run.pivotal.io/tools>
    - or <https://github.com/cloudfoundry/cli>
  - Download and run installer for your platform

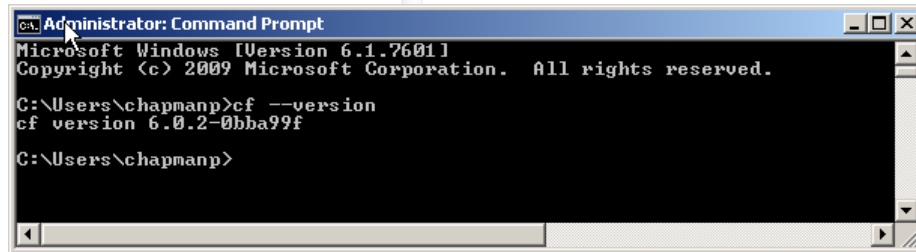


# Test the cf CLI Client

- The CLI is accessed with **cf**
  - Open a Terminal/Command/Shell window
  - At the prompt type: **cf --version**
  - Or use the alias: **cf -v**

A terminal window titled 'paulchapman — bash — 87x10'. It shows the command `/usr/local/bin/cf --version` being executed, which returns `6.0.2-0bba99f`.

```
paulchapman — bash — 87x10
Last login: Thu Mar 20 22:01:51 on ttys005
localhost:~ paulchapman$ /usr/local/bin/cf --version
/usr/local/bin/cf version 6.0.2-0bba99f
localhost:~ paulchapman$
```

A Windows Command Prompt window titled 'Administrator: Command Prompt'. It shows the command `cf --version` being executed, which returns `cf version 6.0.2-0bba99f`.

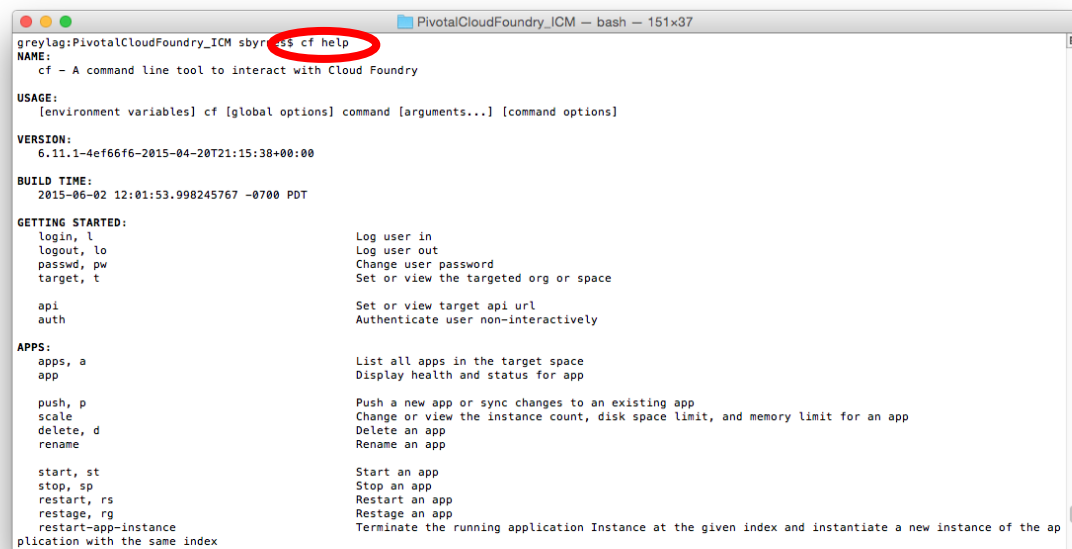
```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\chapmanp>cf --version
cf version 6.0.2-0bba99f

C:\Users\chapmanp>
```

# Getting Help- In General

- Get help at any time via **cf help**
- See an organized list of commands



```
greylag:PivotalCloudFoundry_ICM sbyrn$ cf help
NAME:
  cf - A command line tool to interact with Cloud Foundry

USAGE:
  [environment variables] cf [global options] command [arguments...] [command options]

VERSION:
  6.11.1-4ef66f6-2015-04-20T21:15:38+00:00

BUILD TIME:
  2015-06-02 12:01:53.998245767 -0700 PDT

GETTING STARTED:
  login, l          Log user in
  logout, lo        Log user out
  passwd, pw        Change user password
  target, t         Set or view the targeted org or space

  api              Set or view target api url
  auth             Authenticate user non-interactively

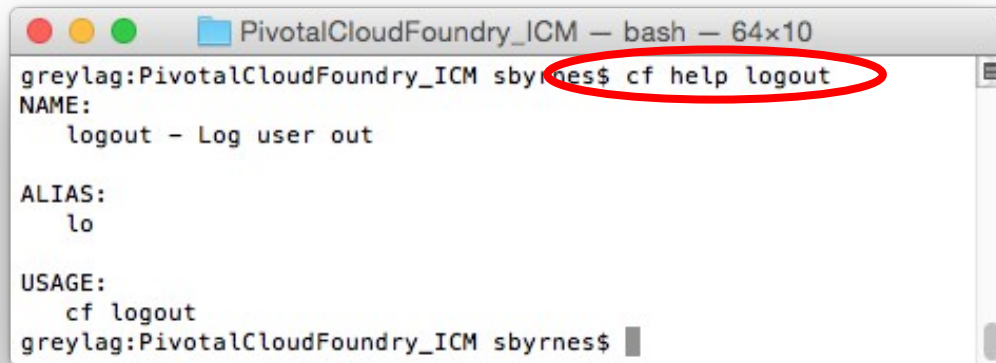
APPS:
  apps, a          List all apps in the target space
  app              Display health and status for app

  push, p          Push a new app or sync changes to an existing app
  scale            Change or view the instance count, disk space limit, and memory limit for an app
  delete, d        Delete an app
  rename           Rename an app

  start, st        Start an app
  stop, sp         Stop an app
  restart, rs      Restart an app
  restage, rg      Restage an app
  restart-app-instance
  Terminate the running application Instance at the given index and instantiate a new instance of the ap
plication with the same index
```

# Getting Help- Specific Commands

- `cf help <command>`



A terminal window titled "PivotalCloudFoundry\_ICM — bash — 64x10" is shown. The prompt is "greylag:PivotalCloudFoundry\_ICM sbyrnes\$". The command "cf help logout" is entered and circled in red. The output shows the command's name, alias, and usage.

```
greylag:PivotalCloudFoundry_ICM sbyrnes$ cf help logout
NAME:
  logout - Log user out

ALIAS:
  lo

USAGE:
  cf logout
greylag:PivotalCloudFoundry_ICM sbyrnes$
```

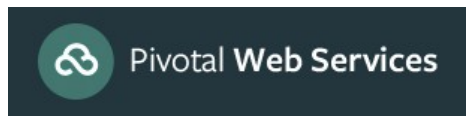


# Topics

- Getting Started with the Command Line Interface
- **Login to Pivotal Web Services (PWS)**

# Pivotal Web Services (PWS)

- The cf CLI needs to point to a Cloud Foundry installation
- Pivotal provides a hosted installation at <https://run.pivotal.io>
- We will use this installation for part of this course
  - Visit <https://run.pivotal.io>
  - Sign up for a trial account



# Login to Cloud Foundry

- The cf CLI needs to know:
  - What Cloud Foundry installation you are using
  - What your account details are
- Use **cf login**

```
cf login -a api.run.pivotal.io -u <username>
API endpoint: api.run.pivotal.io
Authenticating...
OK

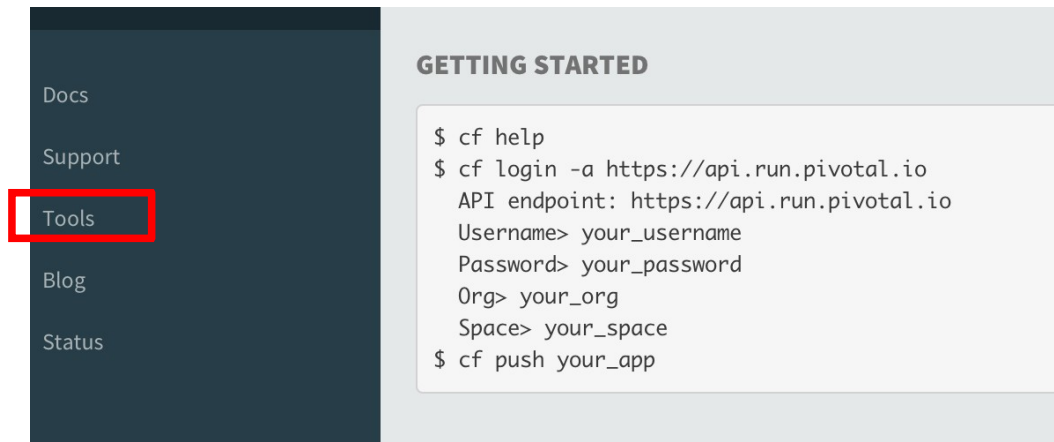
Targeted org Cloud Foundry Course

Targeted space development

API endpoint: https://api.run.pivotal.io (API version: 2.0.0)
User:         qzqz2020@yahoo.com.au
Org:          Cloud Foundry Course
Space:        development
```

# Finding the API Endpoint URL

- URL of your Cloud Foundry instance
  - On Apps Manager homepage on first login
  - Or click *Tools*
- Shows how to run **cf login**, including the API endpoint



# Current Targets

- When you first login, you see output shown below
  - Notice it shows *current* organization and space
  - At any time, run **cf target** to get the same information
- By default your organization only has one space (development)
- **Note:** On PWS you are set up as your own organization and can add more organizations

```
API endpoint: https://api.run.pivotal.io (API version: 2.6.0)
User:         pchapman@pivotal.io
Org:          pivotaledu
Space:        development
```

# Using a Proxy

- Your company may require a proxy for internet access
  - Look in the *Network* or *Internet* settings for your browser
- To configure this for `cf`
  - `set HTTP_PROXY=...proxyurl...` (Windows)
  - `export HTTP_PROXY=..proxyurl` (Unix/MacOS)

```
localhost:dev$ set HTTP_PROXY=proxy.mycompany.com:8080
```

```
localhost:dev$ echo %HTTP_PROXY%  
proxy.mycompany.com:8080  
localhost:dev$
```

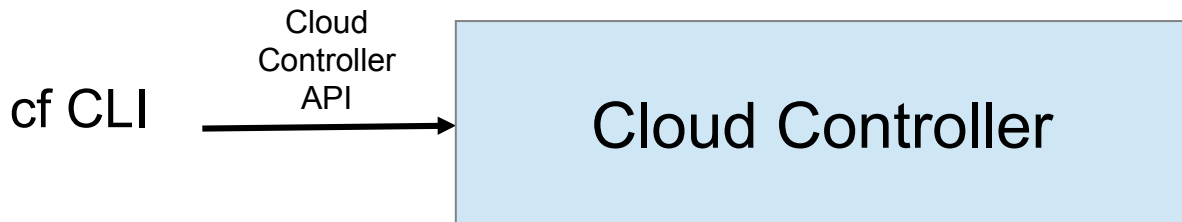
*Windows*

```
dev$ export HTTP_PROXY=proxy.mycompany.com:8080  
dev$ echo $HTTP_PROXY  
proxy.mycompany.com:8080  
dev$
```

*Unix/MacOS*

# Cloud Controller

- When you set a target, you are connecting to a component of Cloud Foundry called the Cloud Controller
- The Cloud Controller has a REST API
- The commands of the cf CLI make Cloud Controller API calls behind the scenes



(the Cloud Foundry entry points of a load balancer and router are not shown in diagram)

# The .cf Directory

- **cf** creates a **.cf** directory in your *home* directory of your computer
  - Stores context, logs, crash reports ...
  - Remembers your CF API endpoint
    - Don't need to specify **-a** option at next login

```
localhost:dev$ ls -l ~/.cf
total 48
-rw----- 1 paulchapman staff 2491 15 Aug 14:06 config.json
-rw-r--r-- 1 paulchapman staff 11737 29 Nov 2013 crash
drwxr-xr-x 3 paulchapman staff 102 12 Sep 2013 logs
-rw-r--r-- 1 paulchapman staff 26 12 Sep 2013 target
-rw-r--r-- 1 paulchapman staff 2084 29 Nov 2013 tokens.yml
```



# Topics

- Getting Started with the Command Line Interface
- Login to Pivotal Web Services (PWS)

# Lab

Install the cf CLI and log in to PWS