

Tools Box



@somkiat

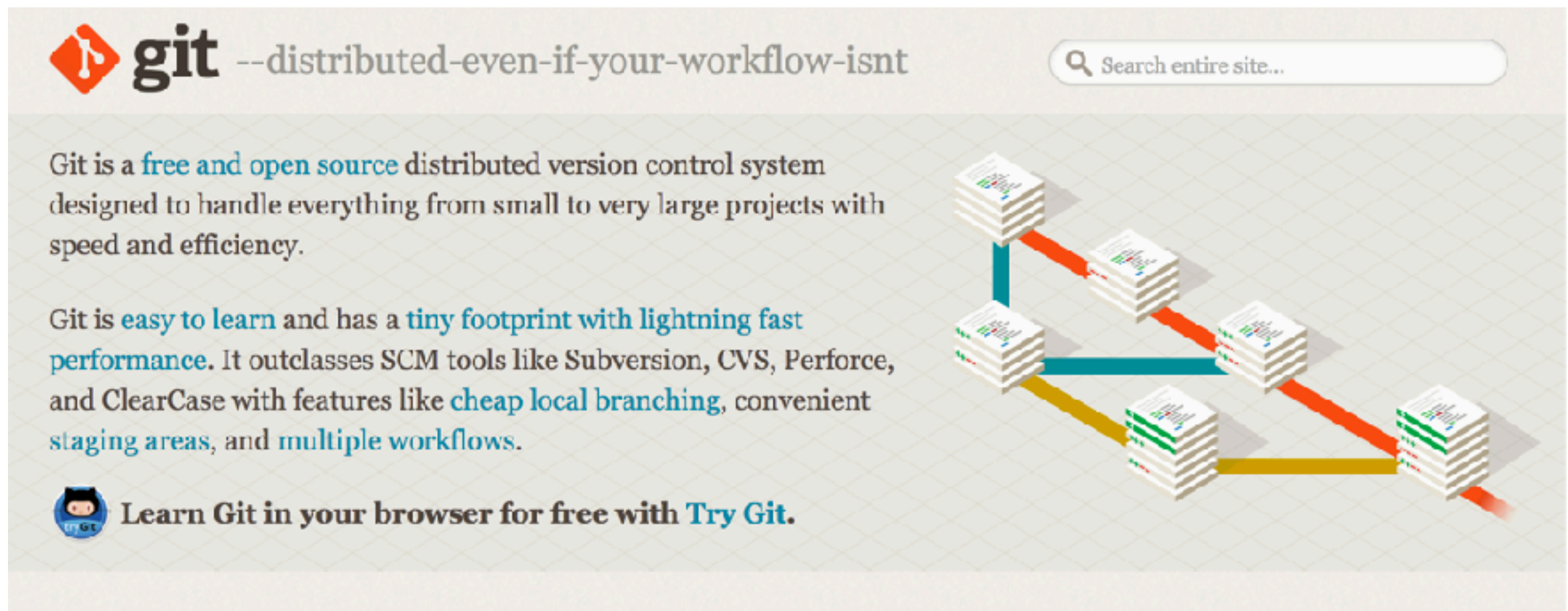


Version Control



Git

<https://git-scm.com/>




The banner features the Git logo (an orange diamond with a white 'G' and a red 'i') followed by the text 'git --distributed-even-if-your-workflow-isnt'. To the right is a search bar with the placeholder text 'Search entire site...'. Below the logo, there are two paragraphs of text describing Git as a free and open source distributed version control system, highlighting its speed, efficiency, ease of learning, and performance. To the right of the text is a diagram showing a network of nodes (represented as stacks of papers) connected by lines, illustrating the distributed nature of the system. At the bottom left, there is a 'tryGit' logo and the text 'Learn Git in your browser for free with Try Git.'

git --distributed-even-if-your-workflow-isnt

Search entire site...

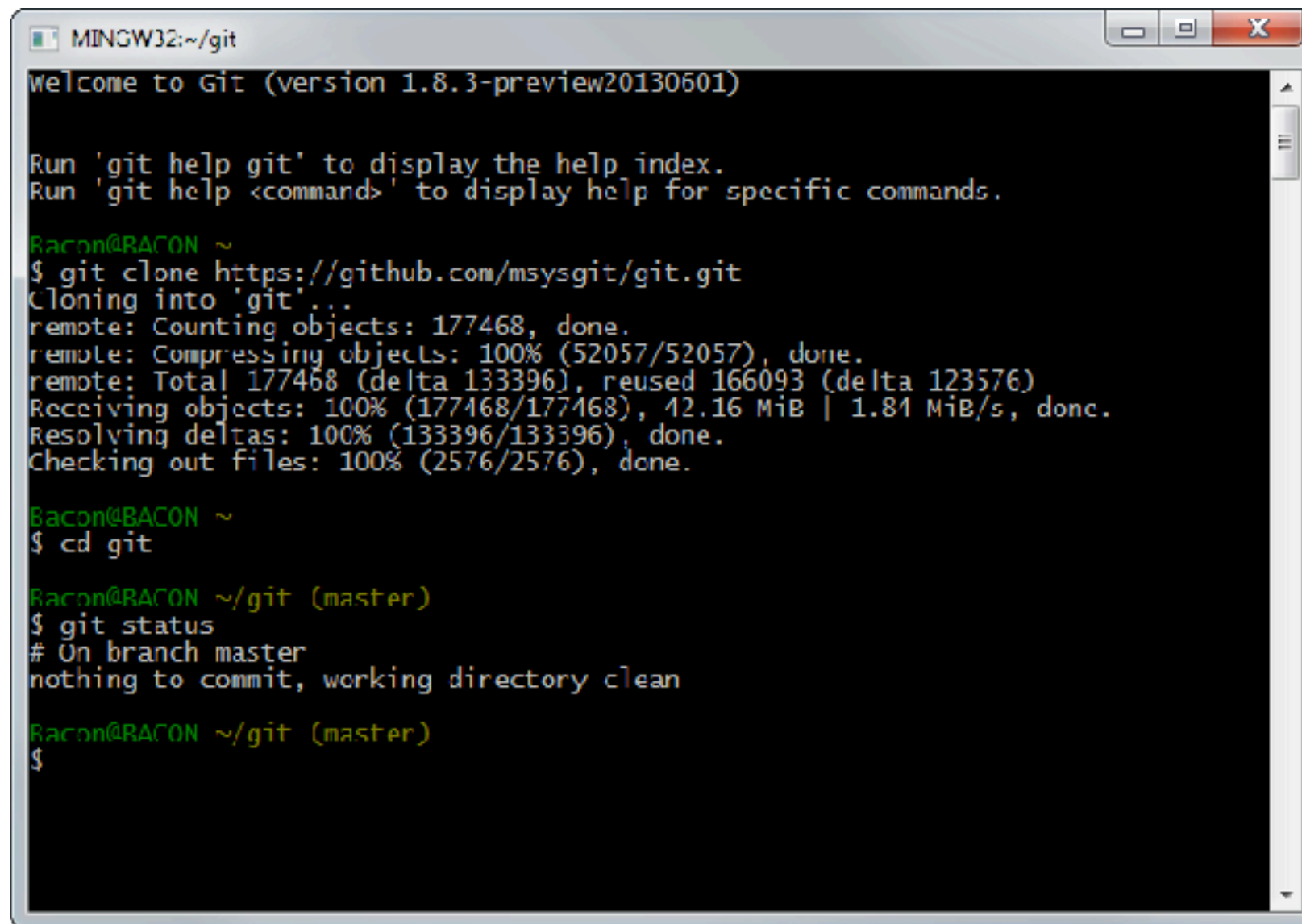
Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient staging areas, and **multiple workflows**.

 Learn Git in your browser for free with **Try Git**.

Git

Use git-bash



```
MINGW32:~/git
Welcome to Git (version 1.8.3-preview20130601)

Run 'git help git' to display the help index.
Run 'git help <command>' to display help for specific commands.

Bacon@BACON ~
$ git clone https://github.com/msysgit/git.git
Cloning into 'git'...
remote: Counting objects: 177468, done.
remote: Compressing objects: 100% (52057/52057), done.
remote: Total 177468 (delta 133396), reused 166093 (delta 123576)
Receiving objects: 100% (177468/177468), 42.16 MiB | 1.84 MiB/s, done.
Resolving deltas: 100% (133396/133396), done.
Checking out files: 100% (2576/2576), done.

Bacon@BACON ~
$ cd git

Bacon@BACON ~/git (master)
$ git status
# On branch master
nothing to commit, working directory clean

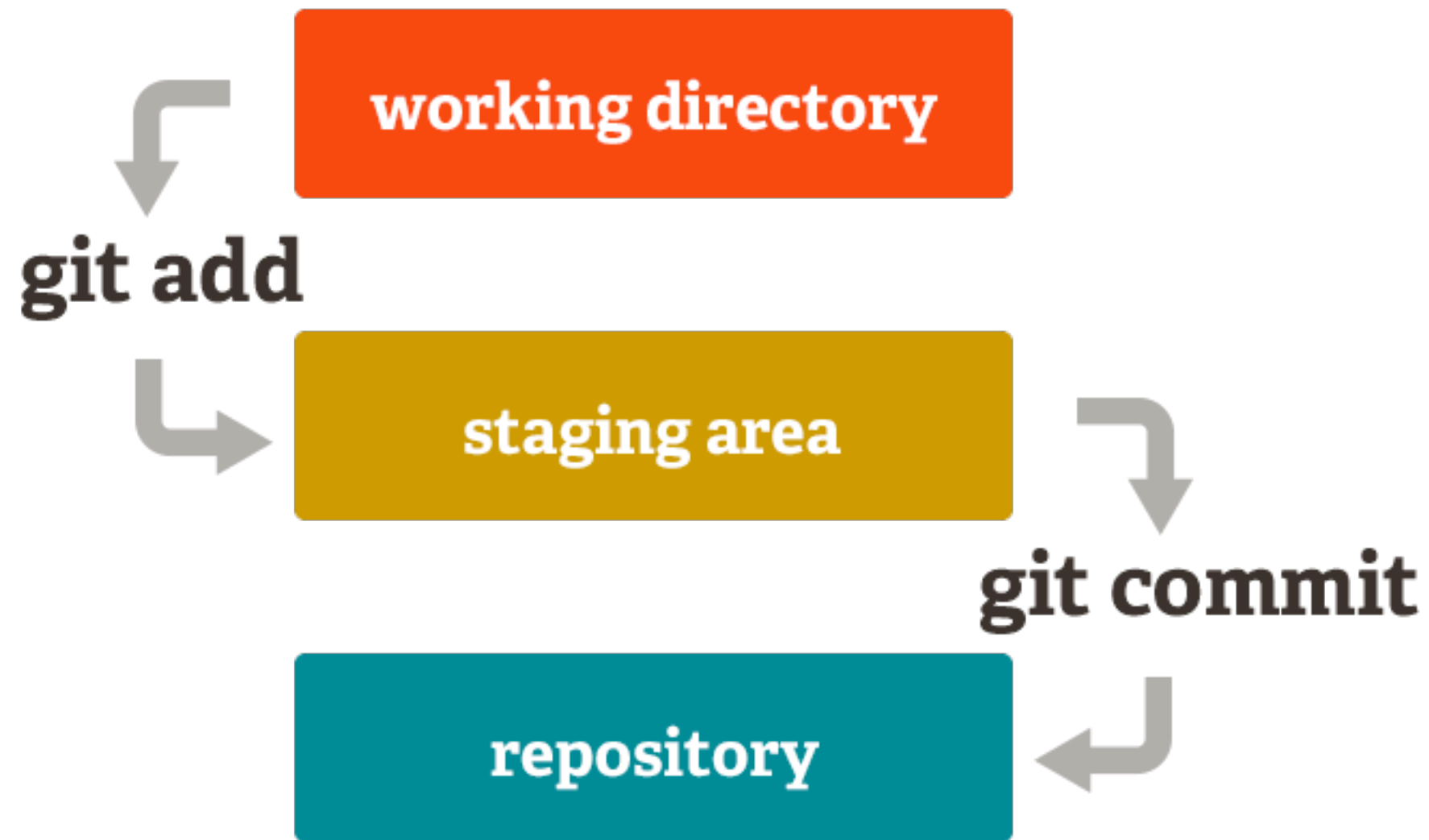
Bacon@BACON ~/git (master)
$
```



Hello git



Git Workflow



Git commands

git status

git init

git add

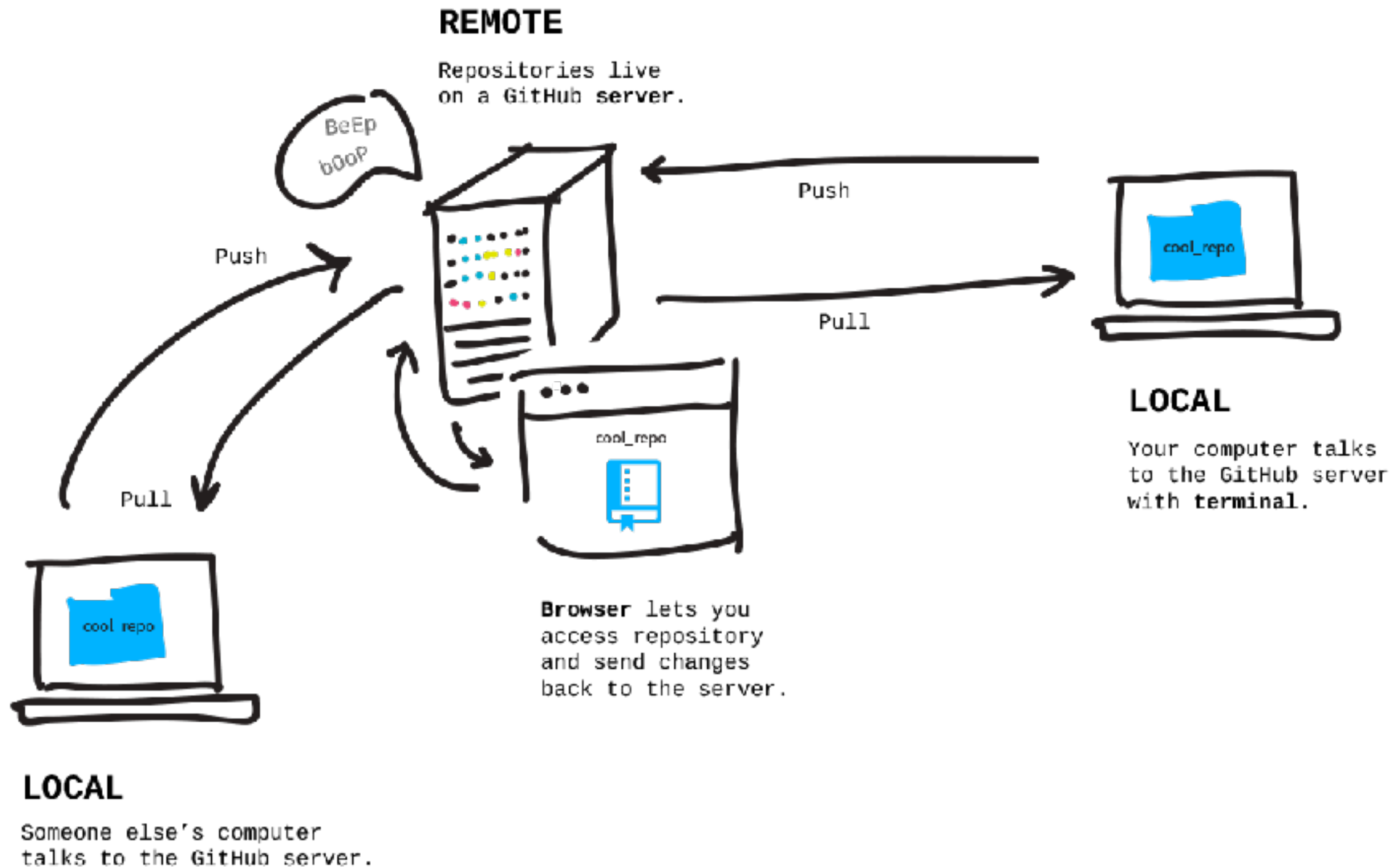
git commit

git push

git pull



Working with remote



Github

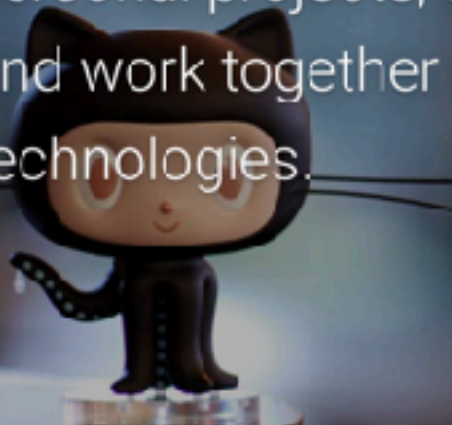
<https://github.com/>



Personal Open source Business Explore Pricing Blog Support

How people
build software

Millions of developers use GitHub to build personal projects, support their businesses, and work together on open source technologies.



Use at least one letter, one numeral, and seven characters.

By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We'll occasionally send you account related emails.



Tools Box



Java

\$java -version

\$javac -version



Java on Windows

set JAVA_HOME=<path of jdk>

set PATH=.;%JAVA_HOME%\bin;%PATH%



Apache Maven

<https://maven.apache.org/>



[Apache](#) / [Maven](#) / Welcome to Apache Maven

Last Published: 2017-01-08

MAIN

Welcome

[License](#)

[Download](#)

[Install](#)

[Configure](#)

[Run](#)

[IDE Integration](#)

ABOUT MAVEN

[What is Maven?](#)

Welcome to Apache Maven

Apache Maven is a software project management and comprehension tool. Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central piece of information.

If you think that Maven could help your project, you can find out more information about in the "About Maven" section of the navigation. This includes an in-depth description of [what Maven is](#), a [list of some of its main features](#), and a set of [frequently asked questions about what Maven is](#).

This site is separated into the following sections, depending on how you'd like to use Maven:

Use

[Download, Install, Run Maven](#)

[Configure, Use Maven and Maven Plugins](#)

Information for those needing to build a project that uses Maven

Information for those wanting to use Maven to build their project, including a "10 minute test" that gives a



Apache Maven

Download version 3.3.9

	Link	Checksum
Binary tar.gz archive	apache-maven-3.3.9-bin.tar.gz	apache-maven-3.3.9-bin.tar.gz.md5
Binary zip archive	apache-maven-3.3.9-bin.zip	apache-maven-3.3.9-bin.zip.md5
Source tar.gz archive	apache-maven-3.3.9-src.tar.gz	apache-maven-3.3.9-src.tar.gz.md5
Source zip archive	apache-maven-3.3.9-src.zip	apache-maven-3.3.9-src.zip.md5



Apache Maven

Extracted and configuration

set MAVEN_HOME=<path of maven>

set PATH=.;%MAVEN_HOME%\bin;%PATH%



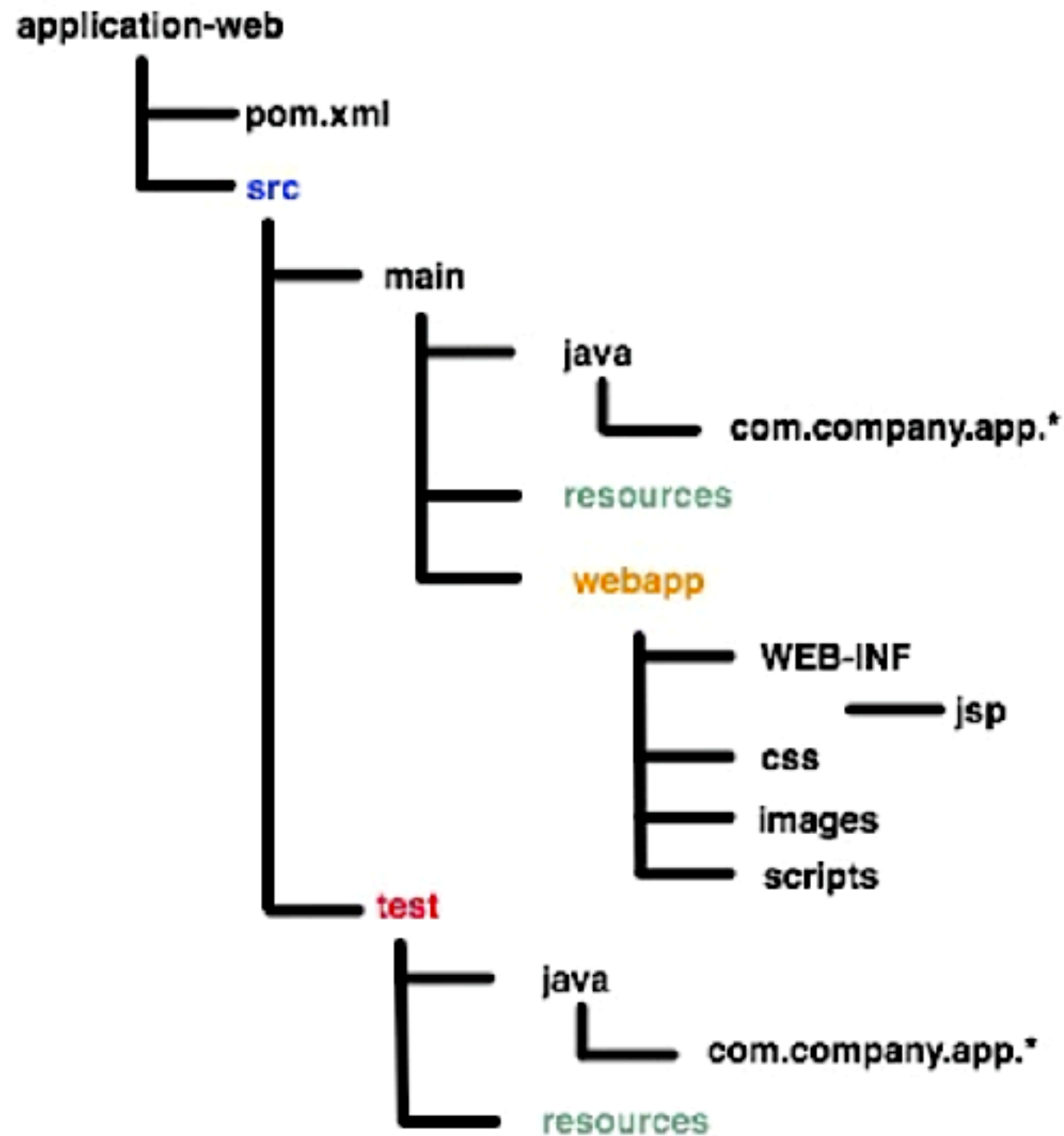
Using maven

\$mvn -version

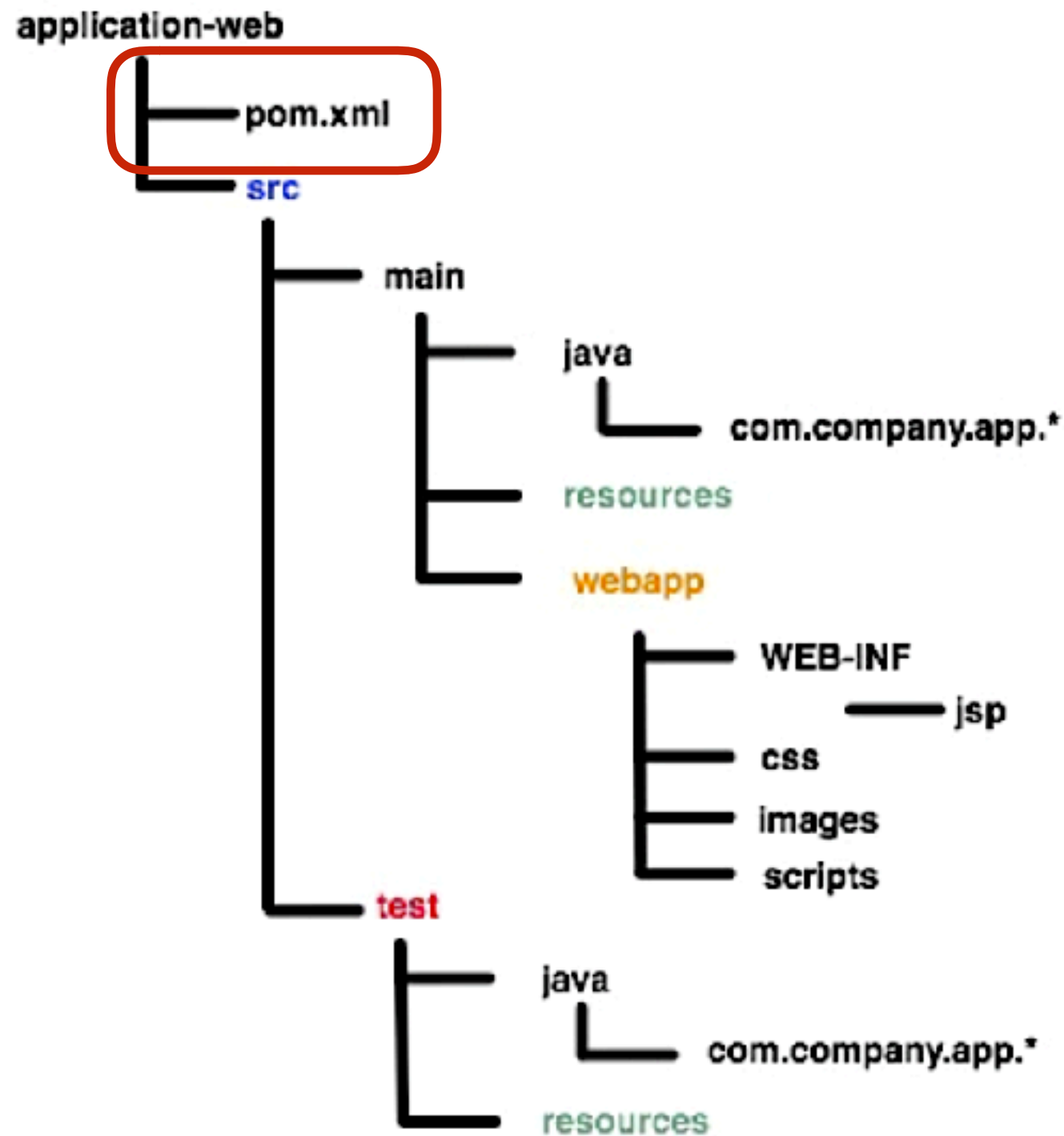
```
Apache Maven 3.3.9 (bb52d8502b132ec0a5a3f4c09453c07478323dc5; 2015-11-10T23:41:47+07:00)
Maven home: /usr/local/Cellar/maven/3.3.9/libexec
Java version: 1.8.0_40, vendor: Oracle Corporation
Java home: /Library/Java/JavaVirtualMachines/jdk1.8.0_40.jdk/Contents/Home/jre
Default locale: en_US, platform encoding: UTF-8
OS name: "mac os x", version: "10.12.1", arch: "x86_64", family: "mac"
```



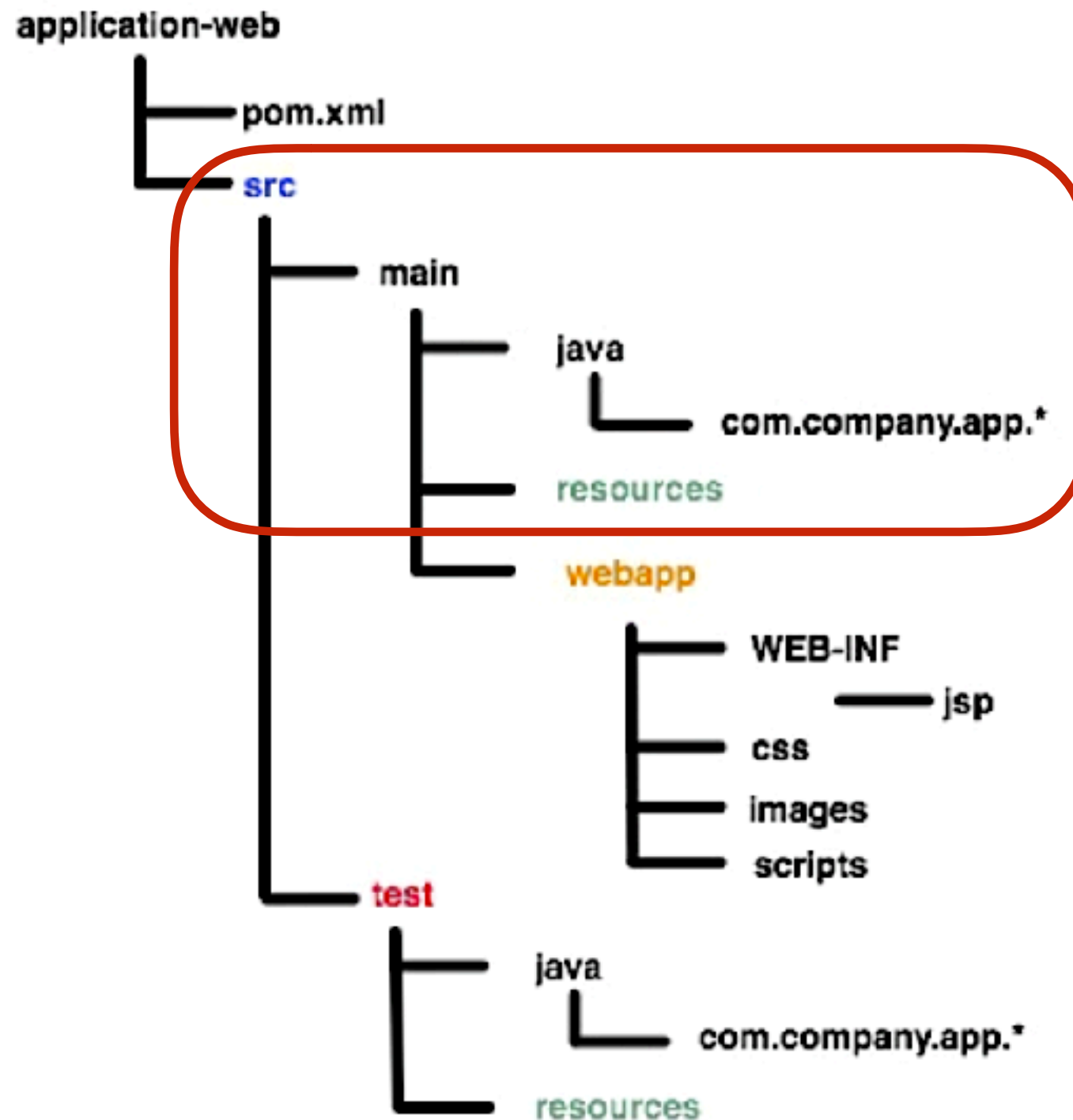
Maven project structure



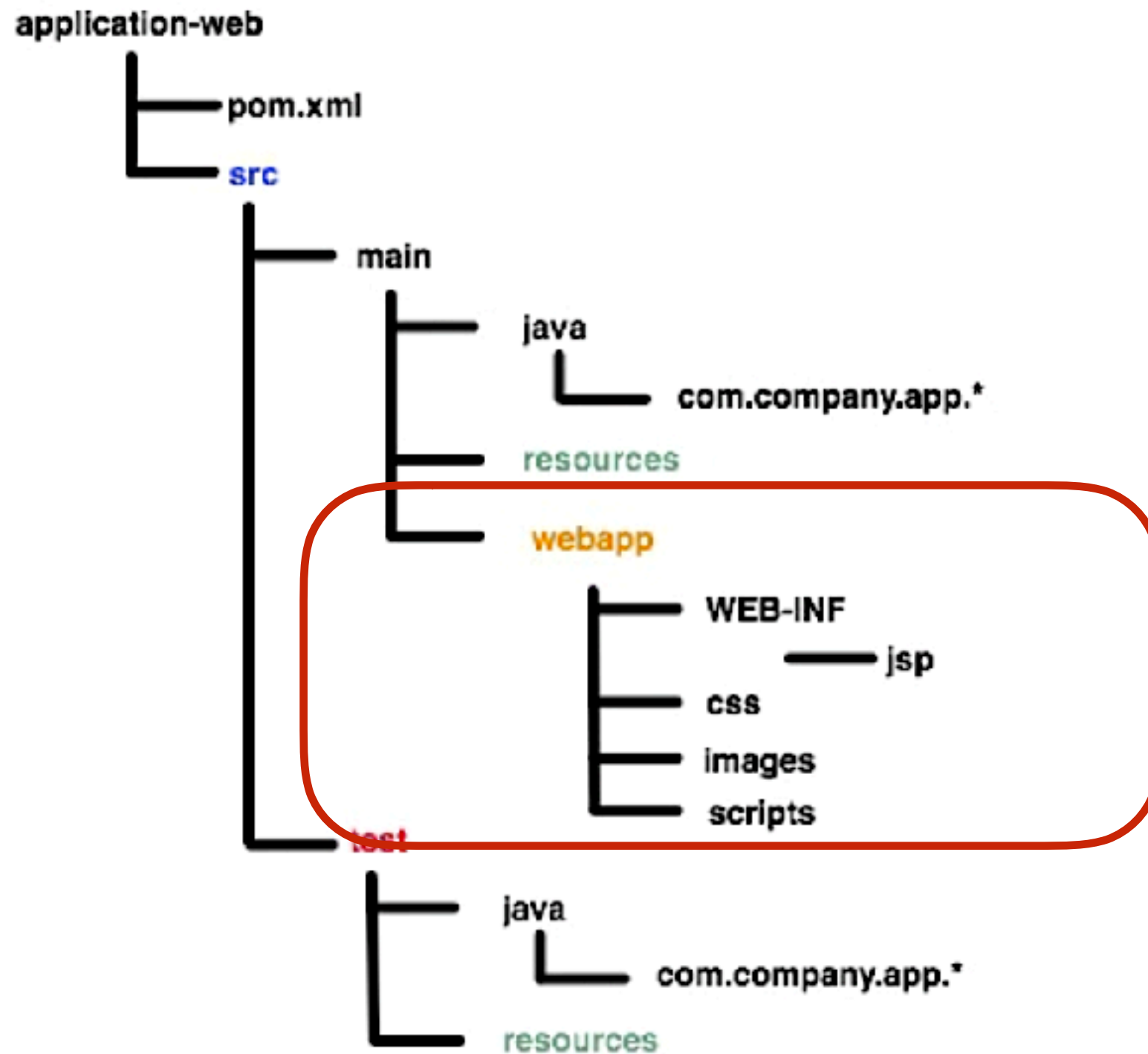
Maven project structure



Maven project structure



Maven project structure



Try by yourself

```
$git clone https://github.com/up1/demo-service.git
```

```
$cd demo-service
```

```
$cd user-service
```

```
$mvn clean package
```



Try by yourself

```
$java -jar ./target/user-service.jar
```

```

      .
     /\ /___'-----(-)-----\\ \ \ \ \
    (( )\___|'_||'_||'_|\_/_'\___| \ \ \ \
   \|/ ___)|_|_)||_|_|_|_|_|(|_|_|)))))
    '|_____|_.|_|_|_|_|_|_\_,|// // //
   =====|_|=====|_/=/_/_/_/_/

:: Spring Boot ::                (v1.3.5.RELEASE)

2017-01-09 23:58:07.623 INFO 83018 --- [           main] demo.UserServiceApplication : Starting
with PID 83018 (/Users/somkiat/data/university/kmitl/2560-soa-microservice/demo/demo01/user-service/target
university/kmitl/2560-soa-microservice/demo/demo01/user-service)
2017-01-09 23:58:07.627 INFO 83018 --- [           main] demo.UserServiceApplication : No act
2017-01-09 23:58:07.775 INFO 83018 --- [           main] ationConfigEmbeddedWebApplicationContext : Refreshing
EmbeddedWebApplicationContext@28050d20: startup date [Mon Jan 09 23:58:07 IT 2017]; root of context hierarc
2017-01-09 23:58:09.797 INFO 83018 --- [           main] s.b.c.e.t.TomcatEmbeddedServletContainer : Tomcat
2017-01-09 23:58:09.829 INFO 83018 --- [           main] o.apache.catalina.core.StandardService : Startin
2017-01-09 23:58:09.833 INFO 83018 --- [           main] org.apache.catalina.core.StandardEngine : Startin
2017-01-09 23:58:09.966 INFO 83018 --- [ost-startStop-1] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initia
2017-01-09 23:58:09.967 INFO 83018 --- [ost-startStop-1] o.s.web.context.ContextLoader            : Root W

```



Try by yourself

<http://localhost:9001/user>



A screenshot of a web browser window. The address bar shows the URL `localhost:9001/user`. The main content area displays a JSON object with the following structure:

```
{  
  id: 1,  
  firstname: "Firstname",  
  lastname: "Lastname"  
}
```



First service with

