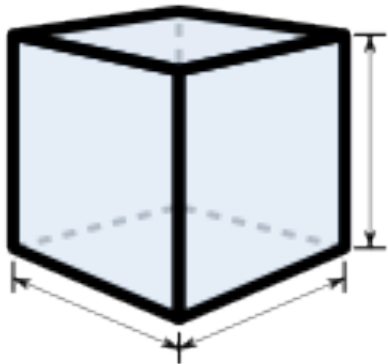




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Take the best Maven on
your side.

Very fast introduction and basic principles to Maven

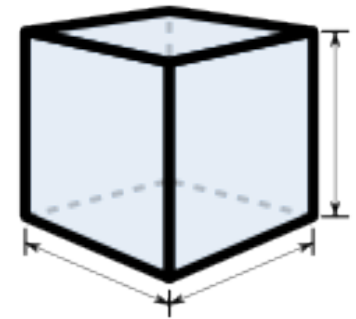
Maven

- Maven is a project **development management** and comprehension tool.
- Based on the concept of a **project object model**:
 - **builds**
 - **dependency** management
 - **documentation** creation
 - site **publication**
- Maven can be extended by plugins to utilize a number of other development tools for **reporting** or the **build process**.



Project Object Model

- Maven is based around the central concept of a **build lifecycle**. What this means is that the process for building and distributing a particular artifact (project) is **clearly defined**.
- For the person building a project, this means that it is only necessary to **learn a small set** of commands **to build** any Maven project, and the POM will ensure they get the results they desired.
- There are three built-in build lifecycles:
 - **Default** / Install (handles your project deployment)
 - **Clean** (handles project cleaning)
 - **Site** (creation of your project's site documentation)



Dependencies

- **Dependency management** is one of the features of Maven that is **best** known to users and is one of the areas where Maven **excels**.
- There is not much difficulty in managing dependencies for a single a project, but when you start getting into dealing with multi-module projects and applications that consist of tens or hundreds of modules this is where Maven can help you a great deal in maintaining a high degree of control and stability.
- An artifact id defined by:

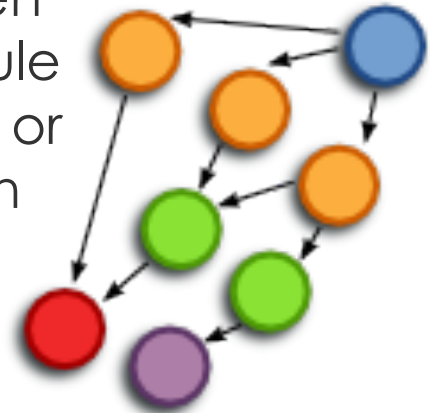
<dependency>

<groupId>*dependencies-group***</groupId>**

<artifactId>*dependency-name***</artifactId>**

<version>*dependency-version***</version>**

</dependency>



POM File

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://  
www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://  
maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/  
maven-4.0.0.xsd">
```

```
  <modelVersion>4.0.0</modelVersion>
```

```
  <groupId>it.domain.project-name</groupId>
```

```
  <artifactId>artifact-name</artifactId>
```

```
  <version>1.0</version>
```

```
  <packaging>jar</packaging>
```

```
  <dependencies>
```

```
    <dependency>
```

```
      <groupId>org.twitter4j</groupId>
```

```
      <artifactId>twitter4j-stream</artifactId>
```

```
      <version>4.0.1</version>
```

```
    </dependency>
```

```
    .
```

```
    . More Dependencies
```

```
    .
```

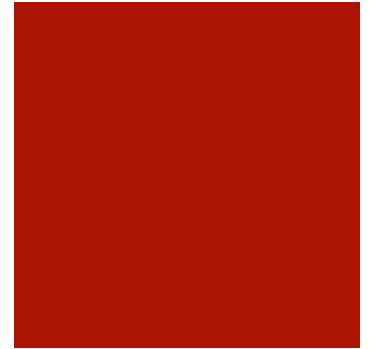
```
  </dependencies>
```

```
</project>
```



Excercise

- **Install** or check that your IDE support **Maven**, *Netbeans* (suggested) have native support.
- **Create** a maven **project** and use the following libraries as **dependencies** (search the web for the needed snippets):
 - **twitter4j-core**
 - **twitter4j-stream**



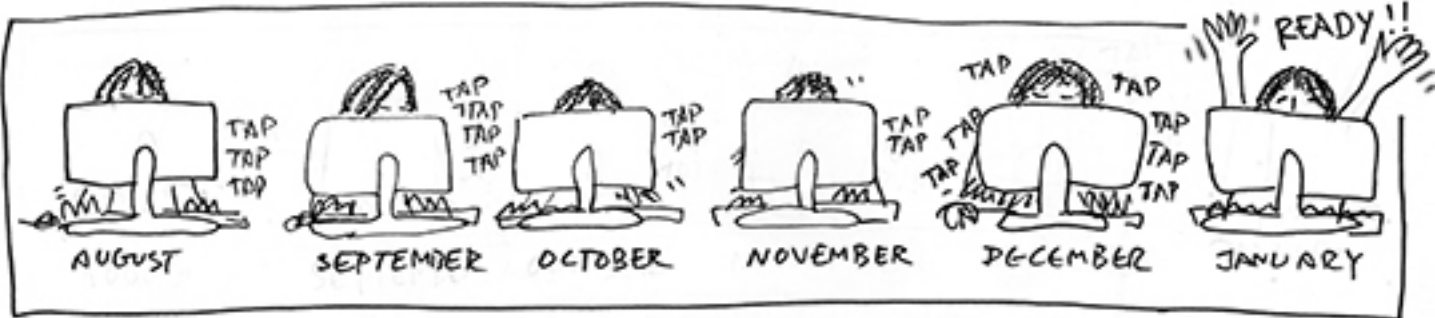
Proxy ~/.m2/settings.xml



```
<settings xmlns="http://maven.apache.org/SETTINGS/1.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/SETTINGS/1.0.0
http://maven.apache.org/xsd/settings-1.0.0.xsd">
...
<proxies>
  <proxy>
    <id>myproxy</id>
    <active>true</active>
    <protocol>http</protocol>
    <host>151.100.17.8</host>
    <port>3128</port>
    <username>USERNAME</username>
    <password>PASSWORD</password>
    <nonProxyHosts>*.google.com | ibiblio.org</nonProxyHosts>
  </proxy>
</proxies>
...
</settings>
```



Let's Try?!?!



Preparing Next Lesson

- Register to Twitter as common User
- Goto: <https://apps.twitter.com/>
- Login with credentials and generate new app.
- Generate all keys:
 - Consumer Key (API Key)
 - Consumer Secret (API Secret)
 - Access Token
 - Access Token Secret

