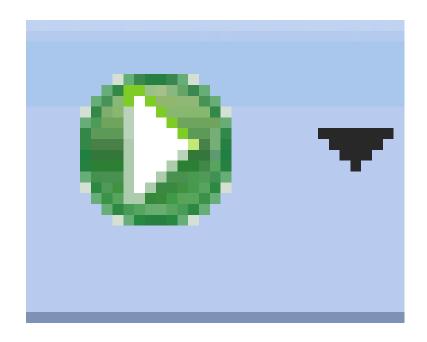
Building projects

Using ANT

No more play button



Building a project

The build process is long and tedious

```
mkdir -p build/classes build/jar src
vim src/HelloWorld.java
javac -sourcepath src -d classes src/HelloWorld.java
java -cp classes HelloWorld
```

Introducing ANT

A command line tool to build your projects



Get Ant

```
Check if you have ant by typing the command:
ant -version
Get ant from: <a href="http://ant.apache.org/bindownload.cgi">http://ant.apache.org/bindownload.cgi</a>
Extract the files to a location of your choosing then add it to your path variable
```

Get Ant

Current Release of Ant

Currently, Apache Ant 1.9.6 is the best available version, see the release notes.

Note

Ant 1.9.6 was released on 02-Jul-2015 and may not be available on all mirrors for a few

Tar files may require gnu tar to extract

Tar files in the distribution contain long file names, and may require gnu tar to do the ex

.zip archive: apache-ant-1.9.6-bin.zip [PGP] [SHA1] [SHA512] [MD5]

Name	Size	Туре
apache-ant-1.9.6	36.5 MB	Folder

Creating an Ant file

Create a file called Build.xml in the root of your project

Name	Date modified	Туре	Size
📗 .settings	2014-10-30 12:26	File folder	
📗 bin	2014-10-30 12:26	File folder	
	2014-10-30 12:26	File folder	
classpath	2014-10-30 12:26	CLASSPATH File	1 KB
project	2014-10-30 12:26	PROJECT File	1 KB
Build.xml	2014-11-04 4:20 PM	XML File	1 KB

Dissecting an ANT file

Go to the AStarExample and find the build file

Running an ant File

```
abbir@SHABBIR-LAPTOP ~/Documents/code/university/ecse321tutorials/AStarExample (master)
$ ant clean
Buildfile: c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\build.xml
clean:
   [delete] Deleting directory c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\bin
BUILD SUCCESSFUL
Total time: O seconds
    bbir@SHABBIR-LAPTOP ~/Documents/code/university/ecse321tutorials/AStarExample (master)
$ ant compile
Buildfile: c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\build.xml
clean:
compile:
     [mkdir] Created dir: c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\bin
[javac] c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\build.xml:10: warning: 'includeantro
[javac] Compiling 9 source files to c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\bin
BUILD SUCCESSFUL
Total time: 2 seconds
 habbir@SHABBIR-LAPTOP ~/Documents/code/university/ecse321tutorials/AStarExample (master)
 ant makejar
Buildfile: c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\build.xml
makeiar:
     [mkdir] Created dir: c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\bin\jar
[jar] Building jar: c:\Users\Shabbir\Documents\code\university\ecse321tutorials\AStarExample\bin\jar\Astar.jar
BUILD SUCCESSFUL
Total time: 0 seconds
```

Exercise

Create ANT build file for your group project that can generate a jar file.

Generate ANT file

Right click on your project Export General->ant build file Hit okay

References

Rami Sayar Tutorial:

https://github.com/sayar/talks/blob/master/ecse321/tutorial9/ant_tutorial.md

Integrating ANT into eclipse: http://help.eclipse.org/luna/index.jsp?
http://help.eclipse.org/luna/index.jsp?
http://help.eclipse.org/luna/index.jsp?
http://help.eclipse.org/luna/index.jsp?
http://help.eclipse.org/luna/index.jsp?
topic=%2Forg.eclipse.platform.doc.user%2FgettingStarted%2Fqs-93
<a href="mailto:topic="mail