

# Software Eng

Using third party Code cleanly

# Admin

- Look at time remaining
- Assignment: put the project, the issues (with links or issue numbers) into a single slack post and pin the post.

# Third Party Code

- Why do we use third party code in our projects?

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# Third Party Code

- Why do we use third party code in our projects?
  - Code reuse
  - Don't reinvent the wheel
  - Intellectual property issues
    - If they own the patent and only allow some implementations what'syagonnado?
  - Industry standards
  - Get product to market in less time
  - Etc.

# Third Party Code

- When writing a library
  - Library writers want to write wide coverage
    - Writing for everyone.
- When using third party code
  - Use only what you need.
    - Opposite of what the library writers want
  - Isolate it from the rest of your system.
  - Just like any other work we want clean boundaries.

# But Whhhhyyyyyyy??

- So why isolate your third party dependancies?

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- So why isolate your third party dependancies?
  - Companies go out of business – or change focus
    - My experiences library builder
  - Other vendors get better – standards change
  - Technology changes
    - Banyon Vines networking anyone?
    - Or even Novell?
  - Language support changes
    - python2->python3
    - Perl required non-backwards compatible update

# But I use Java

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- Huge user base, Maintained by large corporation
  - It will never change right?



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- Ok sure, but if I want a GUI I'll still have access to SWING
  - Of course what about android java?

# Isolate isolate isolate

- When using third party code cleanly
  - Most of your code shouldn't even know it is there
  - And the parts that do should only be able to use the third party code in ways that you approve.
  -

# Using third party code: Learning it

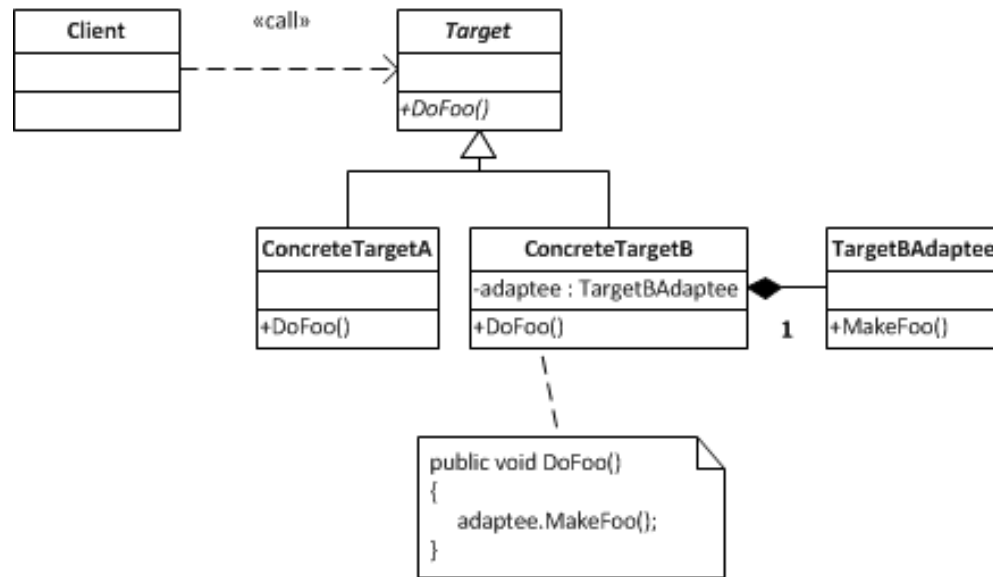
- Use unit tests as an aid to learning 3<sup>rd</sup> party libraries
  - Whether the docs are good or not
  - Now you have unit tests for the parts of the library that you will use
  - What does this buy you?

# Using third party code: Learning it

- Use unit tests as an aid to learning 3<sup>rd</sup> party libraries
  - Whether the docs are good or not
  - Now you have unit tests for the parts of the library that you will use
  - What does this buy you?
  - Now you have a set of tests to make sure that any new version of the library won't break your code

# The adaptor pattern

- The adaptor pattern



- Image from [brian-driscoll.com](http://brian-driscoll.com)
- Your code is the client
- TargetBAdaptee is third party code
- Target is either interface or abstract class

# Adaptor bonus

- As a bonus
  - Adaptor allows you to write code when the third party code isn't available.
  - Reference to figure 8-2 (page 119) or back to previous



# Plan for change

- Plan for change – isolate code at boundaries

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# Reading

- Read chapter 8 in clean code.
- Install Slack
  - <https://slack.com/>
  - See web page.