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# Your Code Might be D.A.N.G.E.R.O.U.S.

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**DANGER IS MY**



**MIDDLE NAME**

memegenerator.net

- Every programmer ever
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# Dead Code

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# Dead Code

## Smells

- Commented out code
- Code that can't be executed
- Code that isn't executed

## Fixes

- Remove commented out code
  - Run static code analysis during your CI build
  - Check with business/colleagues if you suspect code isn't being used
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# Attempts to Reinvent the Wheel

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# Attempting to Reinvent the Wheel

- Don't try to solve problems that have already been solved
  - Reading/writing XML/JSON



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# Named Poorly

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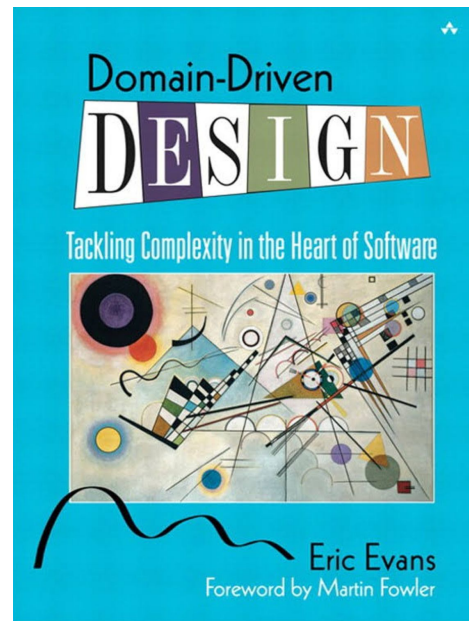
# Named Poorly

## Smells

- Names don't provide meaning
- Names are different from business usage

## Fixes

- Use IDE to give meaningful names to code constructs
- Talk with business partners/co-workers on injecting business meaning into names





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# God Class

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# God Class

## Smells

- Very large class or method
- Class or method that is handling multiple responsibilities

## Fixes

- Use IDE tools to break apart large classes/methods
  - Break apart classes by functionality and/or domain
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# Eats Exceptions

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# Eats Exceptions

## Smells

- Exception is not being written to system log
- Exception is not being propagated back up through the stack
- Wrapping and rethrowing an exception

## Fixes

- Handle the exception at its point of origin
  - Log that an exception occurred
  - If a fault condition, propagate the exception up the stack
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# Replicates Code

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# Replicates Code

## Smells

- Copying and pasting code
- Classes or methods that perform very similar functionality

## Fixes

- Refactor code into common classes/methods
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# Over Engineered

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# Over Engineered

## Smells

- Early optimization
- Adding functionality “because you’ll need it later”

## Fixes

- KISS
  - YAGNI
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# Untested

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# Untested

## Smells

- No automated tests
- Automated tests are unstable
- Automated tests aren't actually asserting behavior

## Fixes

- Write automated tests!
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# Spaghetti Code

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# Spaghetti Code

## Smells

- Poorly defined API/interfaces
- Methods having multiple exit points
- Poor package structure/class location

## Fixes

- Clearly define hand off between client and server
  - Methods should have only one exit point
  - Make sure code is structured in a logical fashion
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# Additional Reading

Trisha Gee's code smells series:

<https://blog.jetbrains.com/idea/2017/08/code-smells-null/>

