

# WHAT YOU EXPECTED...

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*"You know you are  
working on clean code  
when each routine you  
read turns out to be  
pretty much what you  
expected..."*

-- Ward Cunningham



# Code “Smells”



- DRY
- Magic constants
- Loooooong methods
- Comments that explain “what”
- Confusing names
- High coupling (data envy)
- Low cohesion
- If Statements that check type (should be polymorphism?)
- Inconsistent conventions



Refactoring:  
Improving the Design of Existing Code  
by Martin Fowler, with Kent Beck