

Smells and Heuristics

Comments
C1: Inappropriate Information
C2: Obsolete Comment
C3: Redundant Comment
C4: Poorly Written Comment
C5: Commented-Out Code
Environment
E1: Build Requires More Than One Step
E2: Tests Require More Than One Step
Functions
F1: Too Many Arguments
F2: Output Arguments
F3: Flag Arguments
F4: Dead Function
General
G1: Multiple Languages in One Source File
G2: Obvious Behavior Is Unimplemented
G3: Incorrect Behavior at the Boundaries
G4: Overridden Safeties
G5: Duplication
G6: Code at Wrong Level of Abstraction
G7: Base Classes Depending on Their Derivatives
G8: Too Much Information
G9: Dead Code
G10: Vertical Separation
G11: Inconsistency
G12: Clutter
G13: Artificial Coupling
G14: Feature Envy
G15: Selector Arguments
G16: Obscured Intent
G17: Misplaced Responsibility
G18: Inappropriate Static
G19: Use Explanatory Variables
G20: Function Names Should Say What They Do
G21: Understand the Algorithm
G22: Make Logical Dependencies Physical
G23: Prefer Polymorphism to If/Else or Switch/Case

G24: Follow Standard Conventions
G25: Replace Magic Numbers with Named Constants
G26: Be Precise
G27: Structure over Convention
G28: Encapsulate Conditionals
G29: Avoid Negative Conditionals
G30: Functions Should Do One Thing
G31: Hidden Temporal Couplings
G32: Don't Be Arbitrary
G33: Encapsulate Boundary Conditions
G34: Functions Should Descend Only
G35: Keep Configurable Data at High Levels
G36: Avoid Transitive Navigation
Java
J1: Avoid Long Import Lists by Using Wildcards
J2: Don't Inherit Constants
J3: Constants versus Enums
Names
N1: Choose Descriptive Names
N2: Choose Names at the Appropriate Level of Abstraction
N3: Use Standard Nomenclature Where Possible
N4: Unambiguous Names
N5: Use Long Names for Long Scopes
N6: Avoid Encodings
N7: Names Should Describe Side-Effects.
Tests
T1: Insufficient Tests
T2: Use a Coverage Tool!
T3: Don't Skip Trivial Tests
T4: An Ignored Test Is a Question about an Ambiguity
T5: Test Boundary Conditions
T6: Exhaustively Test Near Bugs
T7: Patterns of Failure Are Revealing
T8: Test Coverage Patterns Can Be Revealing
T9: Tests Should Be Fast