G1: Multiple Languages in One Source File G2: Obvious Behavior Is Unimplemented G3: Incorrect Behavior at the Boundaries G4: Overridden Safeties G5: Duplication List include many Martin Fowler (book "Refactoring") smell and adds many mor G6: Code at Wrong Level of Abstraction C1: Inappropriate Information G7: Base Classes Depending on Their Derivatives C2: Obsolete Comment G8: Too Much Information C3: Redundant Comment Comments G9: Dead Code C4: Poorly Written Comment G10: Vertical Separation C5: Commented-Out Code G11: Inconsistency E1: Build Requires More Than One Step **Environment** G12: Clutter E2: Tests Require More Than One Step G13: Artificial Coupling F1: Too Many Arguments G14: Feature Envy F2: Output Arguments **Functions** G15: Selector Arguments F3: Flag Arguments G16: Obscured Intent F4: Dead Function G17: Misplaced Responsibility J1: Avoid Long Import Lists by Using Wildcards G18: Inappropriate Static 12: Don't Inherit Constants Java General G19: Use Explanatory Variables J3: Constants versus Enums CleanCode: G20: Function Names Should Say What They Do Smells and N1: Choose Descriptive Names heuristics G21: Understand the Algorithm N2: Choose Names at the Appropriate Level of Abstraction G22: Make Logical Dependencies Physical N3: Use Standard Nomenclature Where Possible G23: Prefer Polymorphism to If/Else or Switch/Case N4: Unambiguous Names Names G24: Follow Standard Conventions N5: Use Long Names for Long Scopes G25: Replace Magic Numbers with Named Constants N6: Avoid Encodings G26: Be Precise N7: Names Should Describe Side-Effects G27: Structure over Convention T1: Insufficient Tests G28: Encapsulate Conditionals T2: Use a Coverage Tool! G29: Avoid Negative Conditionals T3: Don't Skip Trivial Tests G30: Functions Should Do One Thing T4: An Ignored Test Is a Question about an Ambiguity G31: Hidden Temporal Couplings **Tests** T5: Test Boundary Conditions G32: Don't Be Arbitrary T6: Exhaustively Test Near Bugs G33: Encapsulate Boundary Conditions T7: Patterns of Failure Are Revealing G34: Functions Should Descend Only One Level of Abstraction T8: Test Coverage Patterns Can Be Revealing G35: Keep Configurable Data at High Levels T9: Tests Should Be Fast G36: Avoid Transitive Navigation