

Description of smells and anti-patterns used in the search

Smell	Description
Feature Envy	A method making too many invocations to methods of another class
Lazy Class	A class that has very few methods and fields and its methods tend to have little complexity
Speculative Generality	Unspecialized abstract class (usually is not needed)
Data Clumps	Clusters of data items (e.g., parameters) that are always found together
Shotgun Surgery	A change (even small) in a class results in the need to make a lot of other changes in several related classes
Divergent Change	A class is changed in different ways for different reasons
Large Class	A class that has at least one large method, usually measured in term of LOCs
Long Method	A class that has a method that is excessively long, in term of LOC, compared to other methods in the class
Duplicated Code	Fragments of source code that appear in more than one place in the program
Refused Bequest	Subclasses inherit methods and data of their parents, but they just use a few of them
Data Class	A class with an interface that exposes data members, instead of providing any substantial functionality
Switch Statements	Suspicious switch statement Usage (conditionals depending of type should be changed by polymorphism.)
Message Chain	An operation that accesses a sequence of data exposers members from other classes to hop between multiple objects
Middle Man	A class that delegates most of its work to other classes (does not contain enough logic to justify its own existence)
Parallel Inheritance	Two or more class hierarchies evolve by adding code to both classes at the same time
Blob	A large class that takes too much responsibilities
Spaghetti Code	A class with small structure that declares long methods without any parameters and uses global variables
Temporary Field	A variable that is used in different contexts, implying that it is not consistently used
Complex Class	A class with high level of complexity (mostly measured in term of cyclo-matic complexity)