
Most Common Checkstyle Violation Rules

Formatting & Style

Rule	Description
Indentation	Incorrect indentation (tabs/spaces, or wrong depth)
LineLength	Line exceeds max length (usually 100–120 characters)
WhitespaceAround	Missing spaces around operators or keywords
WhitespaceAfter	Missing space after if, for, while, etc.
EmptyLineSeparator	Missing empty lines between class members
NoLineWrap	Wrapping code lines inappropriately
TrailingWhitespace	Line ends with whitespace
FinalNewline	File does not end with a newline
FileTabCharacter	Tabs used instead of spaces (or vice versa)

Naming Conventions

Rule	Description
TypeName	Class names must be PascalCase
MethodName	Methods must be camelCase
ParameterName	Parameters must be camelCase
LocalVariableName	Local variables must be camelCase
MemberName	Fields should follow naming rules
ConstantName	Constants must be UPPER_CASE
PackageName	Package names must be lowercase

Code Quality

Rule	Description
MagicNumber	Using hardcoded numbers instead of constants
CyclomaticComplexity	Method is too complex (too many branches)
NestedIfDepth	Too many levels of nested if statements
BooleanExpressionComplexity	Complex boolean logic
MethodLength	Method is too long
ClassFanOutComplexity	Class depends on too many other classes
JavadocMethod	Missing or incomplete Javadoc comments
JavadocVariable	Missing Javadoc for class variables
JavadocType	Class/interface missing documentation
TodoComment	// TODO found — used to track incomplete code

Code Structure

Rule	Description
MissingSwitchDefault	switch statements must have a default
FallThrough	Case in a switch falls through without comment
RedundantImport	Unused or duplicate imports
ImportOrder	Incorrect order or grouping of imports
VisibilityModifier	Explicit access modifier required (public, private, etc.)
IllegalThrows	Avoid throwing generic Exception or Throwable
EqualsHashCode	Override equals() without overriding hashCode()
EmptyBlock	Empty blocks like {} are discouraged
ReturnCount	Too many return statements in a method
IllegalCatch	Catching generic exceptions like Exception or Throwable

