Nikhil wiki:

CheckClassName:

Ensures that the class name in in pascal case with the limitation that only words in the dictionary can be checked

Inputs: A classNode string with the package/name of the class

Parts: A loader that loads a set full of words to check if all the words are capitalized

Algorithm: The package name is discarded, then the class name is split into capitalized chunks which is checked against the set to make sure that the capitalized chunk is a word

CheckDuplicateCode:

A check to see if the same method body is being used twice

Input: A ClassNode string with the package/name of the class

Parts: check duplicate method

Algorithm: A for loop that iterates over the method list which ignores the constructor and checks if 2 methods are duplicate by checking a bunch of attributes of the method nodes in a private method.

Observer Pattern Check:

A check to see if the observer pattern is being followed

Parts: This check is split into 2 parts, the check for observer part and the check for the subject part

Observer Part Check: this check checks for an interface contain Observer and a method called update using an abstraction of ASM ClassVisitor’s visit method and visitMethod method

Subject Part Check: this check checks for methods addObserver() and removeObserver() using visitMethod to check if these methods exist