Practice with Static Analysis: Homework 1

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This is an individual/pair assignment. You can work alone or you can, optionally, work in a pair. If you work in a pair, your pair partner for this assignment does <u>not</u> need to be the same person you will pair with for the team project.

Choose some small program that you personally worked on in the past where you have the source code readily available and the program still builds, executes, and more-or-less "works"; in particular, it should not immediately crash (test this!). This program should do something more substantial than print 'hello world', but it need not be a complicated system, e.g., a data structures programming assignment is fine. If you do not have any available source code, then use some publicly available code, e.g., someone's submission to some previous **Google code jam**   (https://code.google.com/codejam) . (In the case of a pair, both of you should choose a program, i.e., some program for person A and another program for person B. That is, an individual student should pick one program and a pair should pick two programs.)

Find some freely available code smell detector or bug checker that applies to your programming language. (In the case of a pair, these might be two different languages, that's fine.) There is a long list of such tools for many languages at **https://github.com/mre/awesome-static-analysis**   (https://github.com/mre/awesome-static-analysis) ; it is ok to use a tool that is not on the list.

Run the analyzer on your program, and obtain the results. (In the case of a pair, do this for both programs.)

Submit a single file that states your name(s) and uni(s), which analyzer(s) you used and discusses what the analyzer(s) found. Were you surprised? Include the actual analysis results as an appendix. You do <u>not</u> need to submit the code itself. (In the case of a pair, the same single file should discuss the analyses for both programs.) Submit the file in canvas (**https://courseworks2.columbia.edu/**), do not submit anything by email or on paper.

In addition to including your name(s) and uni(s) *inside* the file, the name of the file itself should *also* include your uni(s) - so that after we download the files for the whole class, we do not have any filename clashes and we can check who submitted by scanning the file names in the folder. For example, gek1-homework1.txt for a solo student or jbh2019_ras2105_homework1.doc for two students. (Do not submit a file named just homework1!) You should submit as soon as possible after you have are done, you do not need to wait for the deadline. If relevant, you can resubmit repeatedly until the deadline.

Points	4
Submitting	a file upload
File Types	doc, docx, pdf, txt, xls, and xlsx

Due	For	Available from	Until
Sep 20, 2016	Everyone	Aug 23, 2016 at 12am	Jan 31 at 11:59pm

➕ **Rubric**