

# Pre-Class Reading

## Static analysis with PMD and FindBugs

Here is a list of materials you will need to read in preparation for the next lab period. Read everything carefully to make sure you understand the concepts presented here. There will be a quiz on this material at the beginning of class.

## Reading

### FindBugs and PMD

A quick overview of our two new static analyzers (ignore Checkstyle)

<https://www.sparkred.com/blog/open-source-java-static-code-analyzers/>

## Pre-Class Assignment

Install FindBugs and PMD onto IntelliJ.

- 1) Open IntelliJ and click on File > Settings > Plugins (on Mac, select IntelliJ IDEA > Preferences... > Plugins)
- 2) Either click on the tab that says “Marketplace” at the top, or click the button that says “Browse Repositories...” at the bottom.
- 3) Use the search bar (the open area with the magnifying glass) to type in “pmd” and click on the result that **just says** “PMDPlugin”.
- 4) Click on the Install button, accept the notification that comes up about third parties, then click on the option that says restart IDE (Sometimes you may need to hit ok from your settings window to initiate the restart). You know you have installed the plugin correctly when your IDE restarts for you and there are no extra notifications about errors or warnings.
- 5) You should be able to right-click on your source code directory (it should be src for the majority of you), and find an option that says Run PMD. It should be near the bottom. If you do not see it, or if you ran into errors along the way, simply try again as the IDE is generally very forgiving.
- 6) Now install “FindBugs-IDEA”. Start by searching for it in plugins as you did for PMD. If you find it in the list, install it the same way you installed PMD. If you don’t find it in the list, download and install it manually by following these steps:
  - a) Do a Google search for “FindBugs-IDEA plugin”
  - b) Select “Get” from the FindBugs-IDEA page and download the latest version
  - c) Go back to plugins in IntelliJ (the same place where you installed PMD)

- d) Select the gear icon at the top of the dialog and select "Install Plugin from Disk..."
  - e) Browse to the file you downloaded and select it. Note: Select the ZIP folder that you downloaded.
  - f) Select "Restart IDE"
- 7) Right-click on your source directory and confirm you have a FindBugs menu item. It shows up more towards the top of the menu.