CSL202 | Assignment-3 | Due 16/Mar/2018 11:59 PM | 100 points

- Important instructions for coding submission are here: https://goo.gl/IMWvdF
- Grading scheme to be followed is available here: https://goo.gl/52D82g
- Assignment description may be underspecified to allow some room for exploration and creativity.
- Your submission should be packaged as a zip file named **exactly** in this format: CSL202-[your entry no.]-[assignment no.].zip.

You can make use of javap disassembler tool to infer program (i.e. Java class) information from compiled classes. Information about usage of javap can be found here: https://docs.oracle.com/javase/7/docs/technotes/tools/windows/javap.html

You need to write a program in Java which can process all classes available in a given jar file for finding the following information about each class:

1. Average, minimum, maximum and standard deviation of the constant pool size for the classes found in the jar.
2. Distribution of JVM instruction occurrences across all classes in the jar. You may consider only top 50 (in terms of occurrence frequency) JVM instructions.
3. Average number of methods in a class.

Your program should take as input the HTTP URL of a jar file (e.g. https://repo1.maven.org/maven2/aelfred/aelfred/1.2/aelfred-1.2.jar) and do the following:

1. Download the input jar file locally
2. Find out all the classes that are present in the jar
3. Invoke javap to get the information asked above for each class
4. Write the computed output (three things asked above) as a well formatted report in a text file.