Source Code Analysis

Munster Technological University

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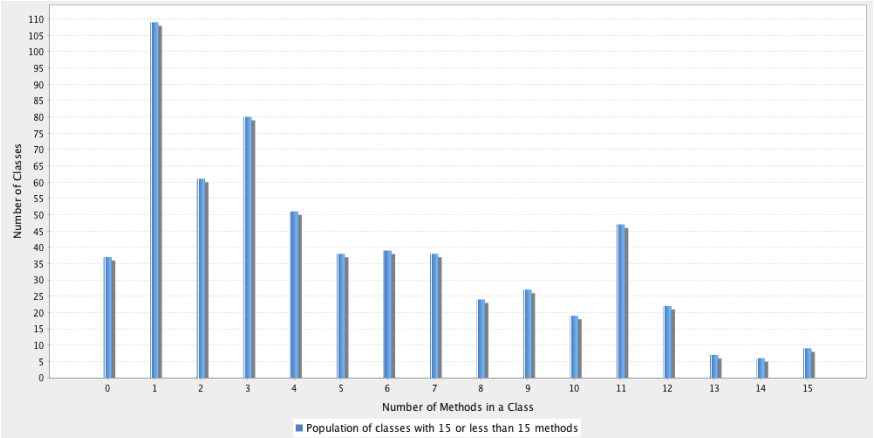

Figure 1: Visualization sample to illustrate the distribution of classes based on the number of methods they contain.

1 Lab Assignment

Extend your project from Lab1 and create a new package and call it Lab2 and add all the required code for this lab in that package.

1. Find JavaParser library from Maven repository and complete the POM.xml
2. Use JHotDraw project (JHotDraw.zip, available under week 2 unit in Canvas) as the subject system and parse the project using recursive functions.
3. (Task1) Use visitors in JavaParser and identify all the classes. For each class, count the number of methods and only select those classes that have 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 or 15 methods. Use a bar chart to visualize the distribution of classes based on the number of methods they contain (e.g., how many classes have no methods, how many classes have 1 method, how many classes have 2 methods .... how many classes have 15 methods). See Figure 1.
4. (Task2) Use findAll() or visitor functionality in JavaParser and identify those classes with more than 10 class fields and more than 10 methods.

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