

Programming Assignment 8

Due at your recitation session on October 28-November 1

Reading

Read Chapter 22 in the textbook.

Programming

In this assignment, you will design, write, and run test cases for the compression methods. You must use JUnit or a similar unit test harness.

All methods must be tested individually. In particular, all protected and private methods must be tested individually. In other words, you cannot test a private or protected method solely by invoking the public methods that call it. Instead, you need to write test cases that invoke the private or protected method directly.

For each method, the test cases have to exhaust the typology described in Section 22.3: structured basis and (if any) data-flow, boundary, compound boundaries, bad data, and good data.

The tests must be **labelled**: add a comment to each test case stating the category(ies) to which the test belongs (for example, a test case could be labeled: “structured basis, data flow, good data”, another as “boundary”, etc.). Additionally, the test suite must include at least one stress test. Some tests may be based on the examples that you formulated in assignment 7. All test cases must be committed on git.

Your tests must match your code. That is, you must give the true outputs of your program. If your program gives an incorrect result, submit the tests with the incorrect results and/or error messages.

For extra credit, develop test cases using object mocks with a mocking framework such as Mockito.

Discussion Guidelines

The class discussion will focus on the design, implementation, and completeness of the test cases.