

CS146 Project 3
Grading Rubric

Problem 1 (Autocomplete term)

_____/ 5

1. Performance Requirement:

- a. The string comparison functions should take time proportional to the number of characters needed to resolve the comparison.

Problem 2 (Binary Search Deluxe)

_____/ 5

1. Performance Requirement:

- a. The `firstIndexOf()` and `lastIndexOf()` methods should make at most $1 + d \log N$ compares in the worst case, where N is the length of the array. In this context,

2. Corner Cases:

- a. Each static method should throw a `java.lang.NullPointerException` if any of its arguments is null.

Problem 3 (Autocomplete)

_____/ 5

1. Performance Requirement:

- a. The constructor should make proportional to $N \log N$ compares (or better) in the worst case
- b. The `allMatches()` method should make proportional to $\log N + M \log M$ compares (or better) in the worst case,
- c. The `numberOfMatches()` method should make proportional to $\log N$ compares (or better) in the worst case

2. Corner Cases:

- a. The constructor and each method should throw a `java.lang.NullPointerException` if its argument is null .

Other Requirements

_____/ 5

- 1. Well formatted code (indentation)
- 2. Code compilation is successful
- 3. Code runs with no errors and meet the output

Meeting Deadline

On time: no penalty, 1 day late: (-20%), 2 days late -40%

Total Score:

_____/ 20

Graders Comments: