

Assignment 11 – The Container classes

Problem 1

In `ClosestNumber.java`, write a program which repeatedly prompts the user for numbers until they enter -1. The program should then prompt the user for one more number, and then tell them which of the initial numbers they entered was closest. A sample run of the program might appear

```
Enter a number (or -1 to continue): 2
Enter a number (or -1 to continue): 20
Enter a number (or -1 to continue): 28
Enter a number (or -1 to continue): 15
Enter a nubmer (or -1 to continue): -1
Enter one last number: 18
The number you entered closest to 18 was 20.
```

If several numbers are tied for closest, you may output any of them.

Problem 2

In `AlphabeticalWords.java`, write a program which prints out all the words in the file `scrabble.txt` which are at least six letters long and whose letters appear in alphabetical order. To check your answer, the first few lines of the output should appear

```
abbess
abhors
accent
accept
```

Hints: recall that if `s` is a `String`, then `s.charAt(i)` returns the character at position `i`. Further, note that chars can be compared using standard comparison operators, so for example the expression `('a' < 'c')` evaluates to `true`.

Project

If you finish early, then continue to work on your final robotics project.