

INTRODUCTION TO COMPUTER SCIENCE I

LAB 3

Providing wisdom

1 Providing user choices, but fancy-like

We have seen how to read in a value from the keyboard, and we will use that capability here. We may, however, want to be more clever about the options we present the user, and our interpretation of those values.

Imagine running a program named `Wisdom`, and seeing the following menu appear:

```
MENU:
      (  1) A joke
      ( 10) A haiku
     (100) A quote
    (1000) A koan
Enter a sum of the messages you want to see:
```

Now, you could enter any one of the choices and see the result:

```
Enter a sum of the messages you want to see: 10
-----
Zamboni summer
melts away last year's defeats --
fresh October ice
-----
```

But you may also **add** choices to select more than one:

```
Enter a sum of the messages you want to see: 101
-----
Alice: I know a great knock-knock joke.
Bob:   OK!
Alice: So, you start.
Bob:   Oh, so...Knock-knock?
Alice: Who's there?
Bob:   ...?!
-----
-----
You can observe a lot by just watching. --Yogi Berra
-----
```

How do we program such an interface?

2 Your assignment

Write a program, named `Wisdom`, as described in Section 1. That is, write a program that presents exactly the menu shown. The user should be able to enter a single integer that selects any number of the choices.¹

To get started, open a terminal (if you haven't already), make a directory for this lab, change into it, and grab some starting source code:

```
[sfkaplan@remus ~]$ mkdir lab-3
[sfkaplan@remus ~]$ cd lab-3
[sfkaplan@remus ~/lab-3]$ wget -nv -i https://goo.gl/SgjjwGk
[sfkaplan@remus ~/lab-3]$ emacs Wisdom.java &
```

You will find, in this source code, only the beginnings of this program. It prints the menu (notice the special use of *escape characters* like `\t` (*tab*) and `\n` (*newline*) to format the multi-line output. Also notice how components of the string, as well as the output, are formatted to be aligned, regular, and easy to read.

Complete this program according to the description *supra* in Section 1.

3 Submitting your work

Submit your `Wisdom.java` file with the CS submission system, using one of the two methods:

- **Web-based:** Visit the submission system web page.
- **Command-line based:** Use the `cssubmit` command at your shell prompt.

This assignment is due on Thursday, Sep-28, 11:59 pm.

¹Find or write your own joke, haiku, quote, and koan!