ICS4U1 – Java Review Quiz – Practice

1. Ms. Jackson would like to know the percentage of days her husband and her are working during the year (which has 365 days). Write a complete Java program that lets Ms. Jackson enter the number of days each of them works.
   The program will then output the following information:
   a) The percentage of days each of them works.
   b) Average between the percentages of days the couple works.
   Do not worry about rounding.   [5 marks]

Sample output:

```
# of days worked
Ms. Jackson: 292
Mr. Jackson: 219

Ms. Jackson: 80%
Mr. Jackson: 60%
Average: 70%
```

2. Write a Java program segment that allows the user to enter a list of characters. User enters 's'
    or "S" to indicate the end of the list ('s' or 'S' is not part of the list). The program then outputs
    the number of characters in the list that are upper case alphabets and the character that is the
    largest lexicographically (largest ASCII code).   [5 marks]

Sample output:

```
Enter 's' or 'S' to exit!
Enter a character: B
Enter a character: a
Enter a character: d
Enter a character: A
Enter a character: s

2 characters are upper case alphabet.
The largest character is d
```

3. A 1D array is used to store the name of each province and territory in Canada (13 in total) and a 2D array is used to keep track of the average temperature of the corresponding province or territory on each month of year 2016.

				Month				
				0	1	2	...	11
0	**Alberta**		0	-12.5	-8.9			
1	**B.C.**		1	**4**	**5**			
:	:	Province / Territory	:					
12	**Yukon**		12					

Assume the following constants have been declared:

```
final int MONTH = 12;
final int PROVINCE = 13;
```

Write a Java program segment that does the following.
a) Declare and create the two arrays [2 marks]
b) Assume the array storing names has been filled. Prompt user for the average temperature of each province (identified by the name) on each month (specified by the index) to fill in the array. [3 marks]
c) Prompt user for the name of a province, an output the month (by number, 1 for January, 2 for February, etc) that the province has the coldest temperature; or output "Province not found!" [5 marks]

Name: _____

Reference

Scanner Class

public char **nextLine**()
    Returns the current line, excluding any line separator at the end.

String Class

public char **charAt**(int index)
    Returns the character at the specified index. An index ranges from 0 to length() - 1. The first character of the sequence is at index 0, the next at index 1, and so on, as for array indexing.