CSCI 1015 – Programming Assignment 4
Loops

Learning Outcomes

- Use loops for repetition and input validation.

Required Reading

Savitch - Sections

Instructions

In the last assignment you implemented a dog age calculator. For this assignment you will modify the dog age calculator so it does the following:

- Prompts for the name of the dog and uses the dog's name when displaying the results. (You may assume the dog's name does not contain spaces)
- Uses a loop to validate that the age of the dog is in the correct range.
- Uses a loop to validate that the weight of the dog is not less than zero
- Uses a loop to repeatedly prompt the user for input until they want to exit the program.

Example Input and Output

Here is a sample of output for a single run of the program

```
Welcome to Nicholas Coleman's Dog Age Calculator!

Please enter the name of your dog: Fluffy
Please enter the actual age of your dog (1-16): 3
Please enter your dog's weight in pounds: 15

Fluffy's age in human years is 28

Would you like to calculate the age of another dog? (Y/N): Y
Please enter the name of your dog: Iggy
Please enter the actual age of your dog (1-16): 8
Please enter your dog's weight in pounds: 45

Iggy's age in human years is 51
```

```
Would you like to calculate the age of another dog? (Y/N): Y
Please enter the name of your dog: Sadie
Please enter the actual age of your dog (1-16): 28
Error: age is out of range
Please enter the actual age of your dog (1-16): 14
Please enter your dog's weight in pounds: 90

Sadie's age in human years is 105

Would you like to calculate the age of another dog? (Y/N): Y
Please enter the name of your dog: Rolf
Please enter the actual age of your dog (1-16): 7
Please enter your dog's weight in pounds: -13
Error: weight must not be negative
Please enter your dog's weight in pounds: 13

Rolf's age in human years is 44

Would you like to calculate the age of another dog? (Y/N): N
Thank you for using the dog age calculator!
```

Notes and Comments

Upload your Java source file to the dropbox named **Program 4**. The name of the source file must be your last name followed by `Program4` with the extension `.java`. For example, mine would be `ColemanProgram4.java`.

Make sure to include comments with your name, a description of what the program does, the course (CSCI 1015), and the assignment name (Program 4) at the beginning of your source file.

Make sure you only hand in the source file for your assignment, not the class file, or any other files that NetBeans creates.

Your programs must compile without errors in order to be graded. Once your program compiles make sure to test it using **multiple test cases** to see if it meets the requirements of the assignment.