Lab 07 – Javascript Functions with Optional Arguments

Objectives

- Writing Javascript functions that take some optional arguments

What to do in Lab?

1. Log in to the computer. If you are reading this, you must have done this already.
2. Create CPSC1045\Lab07 folder
3. Download the file Lab07.zip from D2L to your system. Unzip the contents into your Lab07 folder.
4. Open the included HTML document named **lab7.html** in Google Chrome by either double clicking (if Chrome is the default browser) or by right clicking on it in your file explorer and then selecting Open With -> Google Chrome. The document looks as follows:

Lab 07 – Writing Javascript Functions with Optional Arguments

Part 1: Fortune Teller

Your predicted future will be shown here

Click here and I will predict your future

Part 2: Dog Age Finder

Your Dog's age will be shown here

Click here and I will tell your Dog's age

5. Now open the **lab7.html** file using your favorite HTML editor such as <u>Brackets</u> or <u>VS Code</u>, so that you can edit the code. You will need to create a JS file named **lab7.js** in which you can write your functions and link it to **lab7.html**.

Part 1 (5 marks)

6. Why pay a fortune teller when you can just program your fortune yourself?

   Write a function named **fortuneTeller** that:
   - takes 2 required arguments: job title (X) and geographic location (Y).
   - takes 2 optional arguments: partner's name (Z) and number of children (N).
   - outputs your fortune to the screen as: "You will be a X in Y and not married to anyone." if you pass to the function just the two required arguments and no optional arguments
   - outputs your fortune to the screen as: "You will be a X in Y, and married to Z with no kids." if you pass to the function the two required arguments and one optional argument

- outputs your fortune to the screen as: "You will be a X in Y, and married to Z with N kids." if you pass in all four arguments to the function
- writes the output to both the console as well as to the "div2" id.

Part 2 (5 marks)

7. You know how old your dog is in human years, but what about dog years? Let's calculate it!

   Write a function named **calculateDogAge** that:
   - takes 1 required argument: your puppy's age.
   - takes 1 optional argument: your puppy's age factor.
   - calculates your dog's age based on the conversion rate of 1 human year equals 7 multiplied with dog years if the **factor** argument is not passed or 1 human year equals **factor** multiplied with dog years if the factor argument is passed
   - outputs the result to the screen as: "Your doggie is NN years old in dog years!"
   - writes the output to both the console as well as to the "div3" id.

   Hint: You can write some code within <script> tags in your html document so you can pass your arguments to your functions defined in the external JS file. You will need the prompt function to get all inputs. If the user presses the ESC key in response to a prompt, that would make the variable undefined.

   The finished document should look as follows:

Lab 07 – Writing Javascript Functions with Optional Arguments

Part 1: Fortune Teller

You will be a CEO in France and not married to anyone

Click here and I will predict your future

Part 2: Dog Age Finder

Your doggie is 120 years old in dog years!

Click here and I will tell your Dog's age

Submission: What to hand in

Zip the folder Lab07 which contains your source code (the edited file **lab7.html** and the **lab7.js** file you created) and upload it to D2L.

Submission: When to hand in

At the end of the lab period.