

## Homework 2 (5 points)

For this homework, you will send your final output to **console.log()** unless you choose to do the bonus. Since this will be output to the Console, **please be sure to remove any additional debugging statements so that I only see the final output for this project** when I open the JavaScript Console in Chrome.

You will need to create a simple **index.html** file to load this JavaScript on to a web page. Call your JavaScript file **homework2.js**, and save it in a folder named **YourLastName\_Homework2**. Compress this into a ZIP file called **YourLastName\_Homework2.zip** and upload to your blog 6AM of the next class day.

Questions that have an "A" and a "B" part are worth half a point per part. The final question, number 4&5, is worth 2 points, and the point breakdown can be found in the question. The bonus is worth 1 additional point.

1a. Create a **Person** class where the constructor function creates a new object with the following properties:

- A **name** property that is initialized using a value passed to the constructor function
- A **pets** property that is initialized as an empty Array

1b. Create a **Pet** class with a constructor function that has the following properties:

- A **name** property that is initialized using a value passed to the constructor function
- A **species** property that is initialized using a value passed to the constructor function

2a. Using the **new** keyword, create a **Person** named **Mary**. Then create a **Pet** named **Fluffy**, which is of the species **cat**.

2b Write a function called **assignPetToPerson**, which takes a **Pet** object and a **Person** object as parameters. The function should add the passed **Pet** object to the end of the **pets** array for the passed **Person**. Test this function by assigning Fluffy (the Pet that you created in Step 2) to Mary (the Person who you created in Step 2).

3a. Create two more people, naming them however you want. Create two new Pets for the second person, also naming them whatever you want making them of whatever species you want.

3b. For the third person, assign him or her the same **Pet** object that Mary has (so they co-own Fluffy). Then create two new Pets for the third person, also making them whatever you want, so that the third person has a total of three pets.

5a. After the code for all of the above, change Mary's pet's name to **Mittens**.

4&5. Write a **reportPets** function that takes a **Person** object as a parameter and outputs to the console the person's name followed colon followed by a comma-separated list of pets with the species of pet in parentheses after each pet. For example, your output for **Mary** should look like this:

**Mary: Mittens (cat)**

Your output for **Person2** (whatever you named him/her) should be:

**Person2: Pet1 (species1), Pet2 (species2)**

Your output for **Person3** (whatever you named him/her) should be:

**Person3: Mittens (cat), Pet2 (species2), Pet3 (species3)**

Note that there should only be a comma if there's another pet name following. Your answer will be considered partially incorrect if you have an extra comma at the end of the line. (You will score 1 point for getting the data for all three people correct and 1/2 point for correct formatting as specified here.)

**Hint 1:** Rather than putting a comma AFTER the first pet name, use a conditional statement to see if you're on the 2nd or greater pet in a list, and then put a comma and space BEFORE the next pet's name.

**Hint 2:** You may find it easier to compose your output string before you send it to console.log. For example, you might write something like:

```
outputString = person.name + ": (" + person.pets[0] + ")"
```

to handle the first pet, and then add to this string if there's a second or third pet.

Note: I will be testing your code by adding a fourth person who has more pets, so make sure that your code isn't limited to just the cases I've outlined here. This test is worth the final 1/2 point on the assignment.

**BONUS QUESTION (1 point):** Instead of sending the output to console.log(), create a table and output the people and their pets to it as I did in the gradebook you studied in Workshop 2. Your table should display one person per row and as many pets per row (each in their own cell) as that person owns!