# Client-Side Web Technologies – Homework Assignment 4

Due: May 7th @ 11:59 PM

Value: 20% of total grade

Overview

In this assignment, you get some practice using AJAX (or Fetch API), JSON, and timers. You will use these technologies to create a very simple yet useful webpage that gives information about several different dog breeds. Here is a screenshot of how it should generally look:
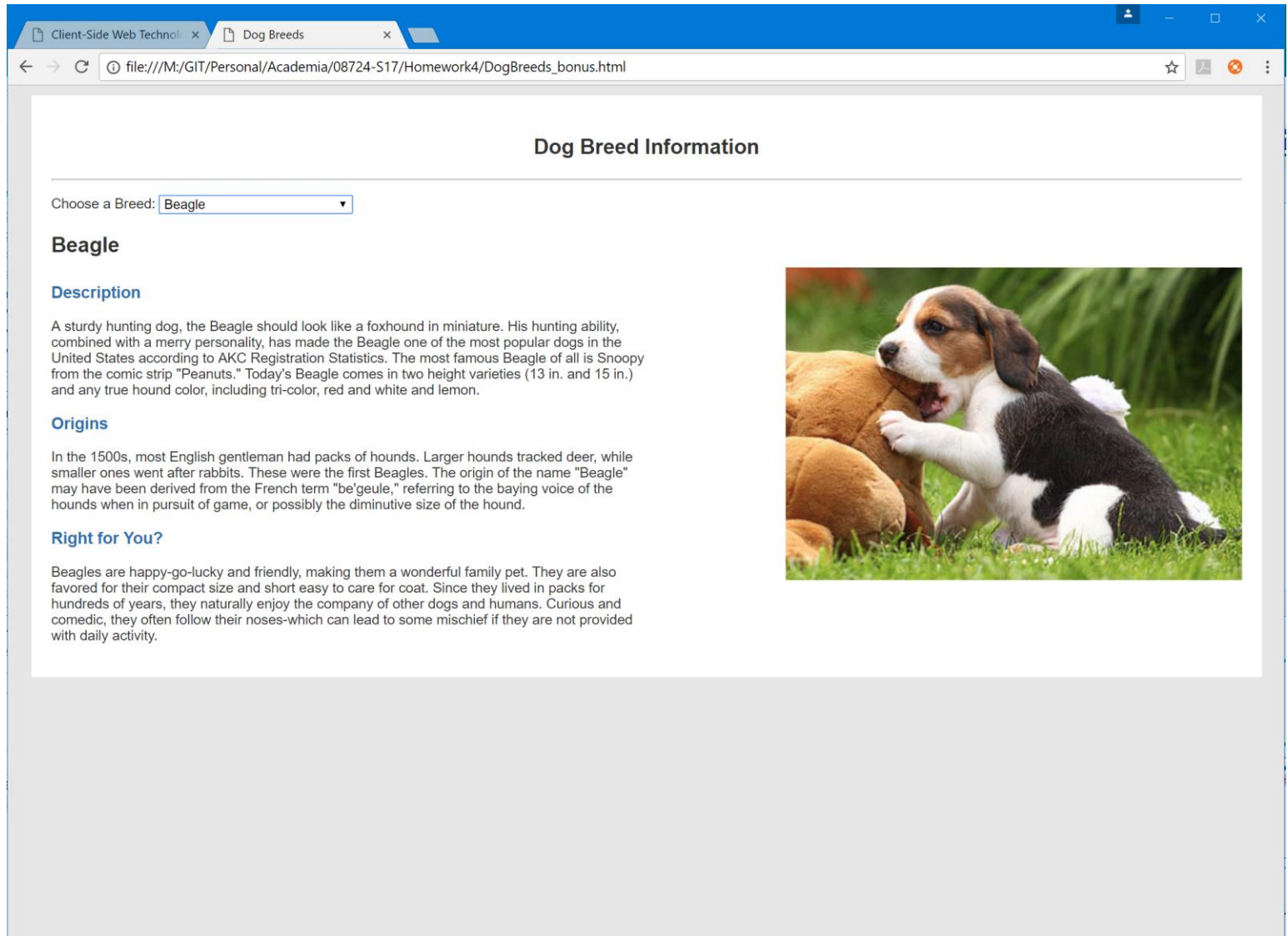

Feel free to use whatever fonts and colors that you want. Unless it would conflict with one of the requirements that are stipulated in the assignment, you are free to get as creative as you like with CSS.

The page must contain a select element, as shown, that upon loading of the page must be populated with data retrieved via an AJAX (or Fetch) call described in the next section. The first breed in the collection returned by the call should be selected initially.

When the page loads and the select element is populated, another AJAX (or Fetch) call is made to obtain breed information for the initially selected breed. The returned data is used to populate the "Description", "Origins", and "Right for You" sections as well as the breed name and image slideshow.

Selecting a different breed will make the appropriate AJAX (or Fetch) call and update all three sections as well as update the breed name header and image slideshow:
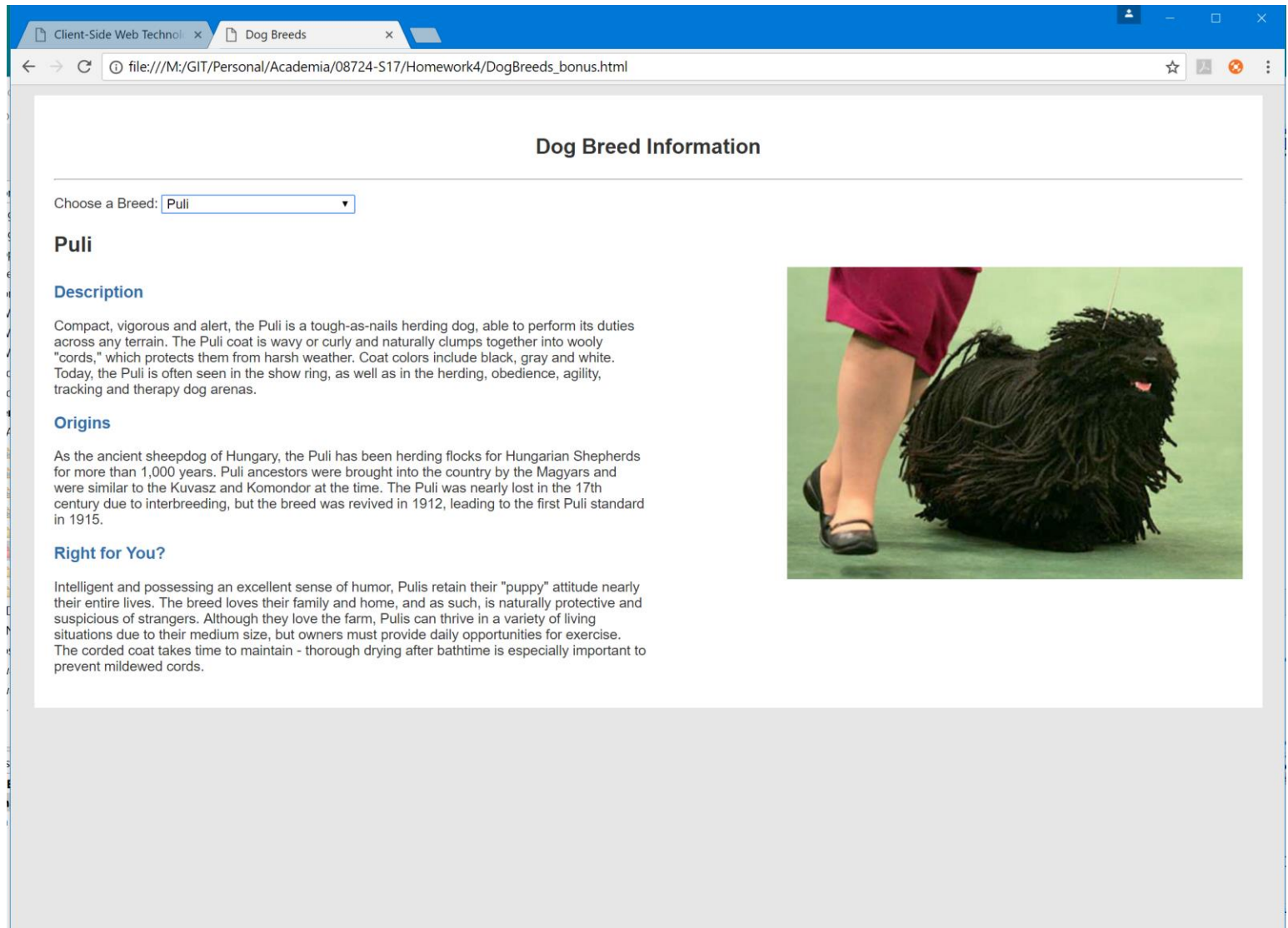
Requirements

There are several requirements. These are outlined below.

Layout

Your page should be laid out similar to how it is shown in the screen shot. There is a heading at the top titled "Dog Breed Information". There is a select element under the heading with the label "Choose a Breed". Under that is where the breed's name should be shown. Under the breed name are three sections – "Description", "Origins", and "Right for You?". These should have the appropriate headings as shown. To the right of those sections is the breed image slideshow. As the width of the viewport gets smaller you may show the image below the "Right for You?" section or you may keep the image on the right and add horizontal scrolling. It is up to you.

Populating the Select Element

The select element must be populated with the option data received from the following URL:

http://csw08724.appspot.com/breeds.ajax

A GET request to this URL will return JSON. The JSON will be a serialized array of objects. Each object contains two properties: "id" and "name". The "id" property is a number that represents the id of the breed. The "name" property is a string that represents the name of the breed. Here is a subset of what the JSON looks like:

```
[
  {"id":1,"name":"Beagle"},
  {"id":2,"name":"Vizsla"}
]
```

You must use this JSON data to create the options for the select element. You must make an AJAX (of Fetch) call to do this whenever your web page loads. Do NOT hardcode the JSON into your solution. Your code should work even if I add more breeds (which I WILL do to evaluate your assignment).

Upon initially loading the select element options, you must make an additional AJAX (or Fetch) call to obtain the data for the first breed option (as if a user had selected the first breed). This is discussed in the next section. Do NOT hardcode the breed for this call. You should programmatically determine the first breed in the select list.

Selecting a Breed from the Select Element

When a user selects a breed from the select element (or in the case of the page initially loading) you must retrieve the necessary data from the following URL and update the page accordingly:

http://csw08724.appspot.com/breed.ajax

Notice that it is very similar to the one above but uses "breed" instead of "breed**s**". There is an additional requirement to this URL as you MUST provide an "id" query string parameter. The id used will be one of the ids from the select element. For example, to retrieve data for the Beagle one would make a GET request to this URL:

http://csw08724.appspot.com/breed.ajax?id=1

A GET request to this will return a JSON object. This object will have several properties:

- a "name" property that is a string to use to update the breed name header below the select element
- a "description" property that is a string used to update the content of the "Description" accordion section
- an "origins" property that is a string to update the content of the "Origins" accordion section
- a "rightForYou" property that is a string to update the content of the "Right for You?" accordion section
- a "imageUrls" property that is an array of strings representing the relative paths to the images on the server for the breed – you will use these for the image slideshow (discussed below)
- an "id" property that is a number representing the breed id

Here is what the JSON object from the above URL would look like:

```
{
  "name":"Beagle",
  "description":"A sturdy hunting dog, the Beagle should ...",
  "origins":"In the 1500s, most English gentleman had ...",
  "rightForYou":"Beagles are happy-go-lucky and friendly ...",
  "imageUrls":["img/beagle.jpg","img/beagle_2.jpg","img/beagle_3.jpg","img/beagle_4.jpg",
    "img/beagle_5.jpg"],
  "id":1
}
```

The image paths are relative to "http://csw08724.appspot.com/" so the full URL for the first beagle image, for example, is http://csw08724.appspot.com/img/beagle.jpg.

Image Slideshow

You will use all 5 images to create a slideshow. Every 5 seconds (timing is of course not guaranteed in Javascript but it should be close), the image should change. The time between image changes should definitely not be < 5 seconds (unless the user changes breeds which of course then you will need to change the image). The slideshow should cycle through all 5 images and start over. The order of the images is up to you. The slideshow should continue until another breed is selected, in which case the slideshow would start playing the images for the newly selected breed.

Submission

To submit your assignment, add all of your files to a ZIP archive, name the ZIP file **Homework4_[andrewid].ZIP**, and upload to Blackboard under Assignment 4 by the due date/time above. For example, my ZIP file name would be **Homework4_jmussits.ZIP**.

Grading Rubric

This assignment is worth 100 points (20% of your total grade). The following is how the assignment will likely be scored:

- The page is laid out correctly **[20 points]**
- The select element is populated correctly when the page loads **[20 points]**
- The breed name header is updated correctly when the page loads and when a breed is selected **[5 points]**
- The "Description" section is updated correctly when the page loads and when a breed is selected **[10 points]**
- The "Origins" section is updated correctly when the page loads and when a breed is selected **[10 points]**
- The "Right for You?" section is updated correctly when the page loads and when a breed is selected **[10 points]**
- The image slideshow works correctly **[25 points]**