**Lesson 8 - JavaScript: Objects and Scope**

**Homework pt 2**

**Project Description**

We are going to be adding search functionality to the pokemon cards. This should be very similar to the navigation that we built yesterday. Start by creating the object, adding empty “stub” methods that describe what the object should do. Then, we’ll go one-by-one, adding functionality to each of the methods, “fleshing out the stubs” or “wiring up each stub.” Once you’re all done, you’ll have an object called pokemonCards which is responsible for hiding and showing cards, getting all of the cards, getting a specific card’s title, and filtering the cards down based on a search term.

**Bonus Challenge**

If you’re feeling particularly ambitious, once you have completed the project for this lesson below, you could do attempt to do the following.

1. Add a banner to the index.html page underneath the banner that reads “my favorite pokemon by type”
   1. Use css and html to build this banner
   2. The banner will be quite a bit smaller than the page title banner
   3. This new banner will serve as a toolbar
   4. I suggest making it dark-gray with a black border, and about half the height of the title
2. Inside of the newly created tool bar, add a search input
   1. <input type=”text” id=”searchBox” />
   2. Style that shit with css so it doesn’t look like garbage
3. Inside of the newly create toolbar, add a button
   1. <button type=”button” id=”searchButton”>Search</button>
   2. Style that shit with css so it doesn’t look like garbage
4. In Index.js, create a new object called searchTool
   1. Give search tool the following methods
      1. getSearchText
         1. Should return the text that is currently in the searchBox
         2. Returns the text as a string
      2. Search
         1. Should make a call to getSearchText
         2. Should make a call to pokemonCards.search()
      3. Init
         1. Should initialize the button click event
         2. When the button is clicked, call this.Search()

**Project Description**

1. In the **Lesson008/solution** directory create a new JavaScript file called **Index.js** and add it to the end of the **<body>** tag
2. Create a new object called **pokemonCards**
3. Create all of the method stubs
   1. Create a method in **pokemonCards** called **getAllPokemonCards**
      1. For now, just create an empty function (a stub) with a console.log(‘getAllPokemonCards’);
      2. We’ll add more functionality in here later
      3. Use the google chrome debugger to make sure that this method is working properly
   2. Create a method in **pokemonCards** called **getCardTitle**
      1. This method should take **pokeCard** as input
      2. For now just create an empty function ( a stub )
      3. Inside of this newly created function…
         1. console.log(‘getCardTitle’);
         2. console.log(pokeCard);
      4. Use the google chrome debugger to make sure that this method is working properly
   3. Create a method in **pokemonCards** called **compareStrings**
      1. This method should take 2 parameters as input
         1. titleText
         2. searchText
      2. For now just create an empty function ( a stub)
      3. Inside of this newly created function….
         1. console.log(‘searchTitleText’);
         2. console.log(titleText);
         3. console.log(searchText);
      4. Use the google chrome debugger to make sure that this method is working properly
   4. Create a method in **pokemonCards** called **search**
      1. This method should take **searchText** as input
      2. For now just create an empty function ( a stub)
      3. Inside of this newly created function….
         1. console.log(‘search’);
         2. console.log(searchText);
      4. Use the google chrome debugger to make sure that this method is working properly
   5. Create a method in **pokemonCards** called **hidePokemonCard**
      1. This method should take **pokeCard** as input
      2. For now just create an empty function ( a stub)
      3. Inside of this newly created function….
         1. console.log(‘hidePokemonCard’);
         2. console.log(pokeCard);
      4. Use the google chrome debugger to make sure that this method is working properly
   6. Create a method in **pokemonCards** called **showPokemonCard**
      1. This method should take **pokeCard** as input
      2. For now just create an empty function ( a stub)
      3. Inside of this newly created function….
         1. console.log(‘showPokemonCard’);
         2. console.log(pokeCard);
      4. Use the google chrome debugger to make sure that this method is working properly
4. Let’s build the methods!
   1. **getAllPokemonCards**
      1. We want to get all of the elements on the page that have the class “pokeCard”
      2. This might be just one line of code!
      3. You’ll know things are working if this method returns an array of <div>
      4. Use the google chrome debugger to make sure that this method is working properly
   2. **getCardTitle**
      1. This method takes a pokemon card as input - that is, this method expects that a <div class=”pokeCard”></div> will be passed into it
      2. Get the H2
         1. This one’s on me!
         2. var h2 = pokeCard.getElementsByTagName(“h2”)[0];
      3. Return the text that is inside of the <h2> element
         1. innerHtml will help you here
      4. You’ll know this is working well if when you call the method, it returns the pokemon card’s title as a string
         1. You can probably use getAllPokemonCards to get all the cards
         2. Get the first card from that list
         3. Then pass it to the newly created getCardTitle method to make sure everything is working
      5. Use the google chrome debugger to make sure that this method is working properly
   3. **hidePokemonCard**
      1. This method takes a pokemon card as input - that is, this method expects that a <div class=”pokeCard”></div> will be passed into it
      2. We want to hide the pokeCard that was passed in
      3. pokeCard.style.display = “none”;
      4. Use the google chrome debugger to make sure that this method is working properly
   4. **showPokemonCard**
      1. This method takes a pokemon card as input - that is, this method expects that a <div class=”pokeCard”></div> will be passed into it
      2. We want to show the pokeCard that was passed in
      3. pokeCard.style.display = “inline-block”;
      4. Use the google chrome debugger to make sure that this method is working properly
   5. **compareStrings**
      1. Recall that this method takes 2 parameters as input
         1. searchText
         2. titleText
      2. Let’s assume that they’ll both be strings
      3. We want to return true if…
         1. If the the search text is contained within the title text
         2. Or if the search text is an empty string
         3. Otherwise, return false
      4. <http://www.w3schools.com/js/js_string_methods.asp>
      5. Use the google chrome debugger to make sure that this method is working properly
   6. **search**
      1. You should have everything you need already built to build this method!
      2. Using this, make a call to getAllPokemonCards()
      3. Loop through all of the cards that you just retrieved
         1. Get the pokemon card at position i
         2. Get the title for the pokemon card that we’re looping through
            1. You can do this by making a call to getCardTitle()
         3. Compare the title of the pokemon card vs the incoming search string
            1. You can do this by making a call to compareStrings()
         4. If compareStrings is true
            1. hidePokemonCard
         5. If compareStrings is false
            1. showPokemonCard
      4. Use the google chrome debugger to make sure that this method is working properly