

CodeQuest, July 16 - 20

Day 1

Homework review

Yesterday's homework

HTML: Make a new file, `aboutMe.html`, and add a paragraph about your hobbies and etc

CSS: Use a container (Google is your friend) to make a nice little menu at the top of your site. It should have a link to the `aboutMe.html` page and a link to the `index.html` (homepage)

Add a button that, when clicked, *alerts* the user “Hi! Welcome to my site!” -- add the function in a file, `functions.js`

JS: Make an array/list of positive messages. Add a new button that alerts the user of a randomly selected message

Hard: Make a new array of phone numbers your favorite restaurants. Now, when you click another button, open a Google hangouts call with a random phone number (open in a new tab is fine).

Pre-req: setup a free <https://voice.google.com/> account

Hint: Experiment by making phone calls in the Hangouts site. Maybe you can find a piece of data related to the phone number dialed?

JavaScript

Variables

```
let name = 'Vivek';  
var year = 2018;
```

'let' = This variable exists only for the life of the function that created it

'var' = This variable exists for the life of the *entire file*

Arrays/lists

```
let nameOfList = [  
  'Blah',  
  'Blah2',  
  'Blah3'  
];
```

Flat braces ([]) are used, and each item is separated by commas

```
let phNumbers = [  
  124134,  
  134243,  
  4488484  
];
```

Quotations not necessarily needed for numeric values

Maintain same syntax!

`let phNums = [309444, '2342', 233];` will not
create a list!

Instead, this creates an “Object”

Objects?

Objects can represent “multi-dimensional” data

Anything with multiple attributes that needs to be stored.

For example, here is an object that contains data about what species I’m a part of, my age, what school I currently attend, my favorite dessert, and if I am currently alive:

```
let Vivek = [  
  'Human', 20, 'UIUC', 'Ice-cream', true  
]
```

Accessing data:

```
console.log('Vivek[0]: ' + Vivek[0]); prints Vivek[0]: Human
```

```
console.log('Vivek[4]: ' + Vivek[4]); prints Vivek[4]: true
```

**Access console in Chrome by rightclick > Inspect element > “Console” in the top navigation menu

Without any description, it can be difficult to figure out what the contents of an Object mean

Dictionaries

Think, “Objects with labels”

```
let Vivek = [  
  'Race': 'Human',  
  'Age': 20,  
  'School': 'UIUC',  
  'Dessert': 'Ice-cream',  
  'Alive': true  
]
```

Accessing data:

```
console.log('Vivek[1]: ' + Vivek[1]); prints  
Vivek[1]: undefined
```

```
console.log('Vivek[Age]: ' + Vivek['Age']); prints  
Vivek[Age]: 20
```

List of dictionaries

```
var humans = [  
  "Vivek": [ "age": 20, "school": "UIUC", "alive": true],  
  "Pranav": [ "age": 10, "school": "NorthPoint", "alive": true],  
  "Mother Teresa": [ "age": "Deceased", "school": undefined, "alive": false, "benevolent": true],  
  "Spiderman": [ "fictional": true]  
];
```

Accessing data:

```
humans["Vivek"] => [ "age": 20, "school": "UIUC", "alive": true]
```

```
humans["Vivek"]["alive"] => true
```

Chrome extensions

ChrX

Extends the Chrome user and browsing experiences -- *I want to hide likes on FB...I can do this with a Chrome extension!*

Themes, popups, background scripts, tabs

Can't do: mine bitcoin with your users' computers

Can do: just about everything else

ALL JAVASCRIPT MUST BE IN SEPARATE FILES -- Chrome will not allow extensions to host scripts inside the html (<script src=""></script> is your friend)

HTML/CSS/JS

Theme demo

Any generic theme extension is fine to check out

Tab demo

Tab for a Cause extension used

Background script demo

LikeFree extension used

Popup demo

SpeedDial (in development at time of publish) extension used
PorNo! extension can be used

Hello world

Take your random messages code and make a little popup that displays a random message upon open

Hello, chrX

Manifest.json -- Birth certificate of the extension

jquery.min.js -- jQuery

popup.html -- The user interface/menu for the extension

scraper.js -- JavaScript goes in here

Take your random messages code and make a little popup that displays a random message upon open

Web scraping and automation

We will build a chrX that scrapes the web
and displays info we commonly search
for

Let's gather the phone numbers of all the
Dairy Queens in the USA

Let's go faster with jQuery and the
console

tinyscraper demo

<https://github.com/mrvivacious/tinyscraper>

Quick Info demo

Will end up on Github at some point

Project

What info do you sometimes go out of your way to look for?

Sports teams' scores, Facebook/social media notifications, weather, views on your YouTube videos, users for your apps...etc

Collect and display at least three unique pieces of info in the popup

Checklist

Figure out what sites we want

Is there a way to get the html of a website without visiting it???

How do we get to the data we want?

Can we somehow clean up/split up all this unorganized data?

Are we collecting data for convenience, or is there a risk of becoming a chronic-extension checker because we're looking for volatile data (likes, views, community feedback, etc) ? *The effects of our Code*

Homework

Homework

Add 1 more piece of data to the extension for string manipulation practice

Do the alexa tutorial on my github:

https://github.com/mrvivacious/AWS_Lambda_and_SNS

Tasks: Text yourself through Alexa commands (skill can be tested in “Test” in the dev console)

Text me sometime before class tomorrow with your skill



**AWS free limits only allow 100 msgs per month -- feel free to text all the people you want while keeping an eye on your usage :)

https://www.w3schools.com/howto/tryit.asp?filename=tryhow_js_todo

<https://developer.chrome.com/extensions/storage>