CodeQuest, July 16 - 20

Day 0

Let's talk about Code

Who

What

Where

When

Why

How

Code is a tool

Code is a social tool

Code is a psychological tool

Code is synonymous with Algorithm

Algorithms as optimizations

Traveling

Algorithms as optimizations

Image of baby crawling

If (necessaryStrength)
*Then crawl(*destination*)*

Algorithms as optimization

Image of young child walking

If (necessaryStrength and *canStand)*
*Then walk(*destination*)*

Algorithms as optimization

Point of view image of driving

If (significantDistance and *hasCar)*
*Then drive(*destination*)*

Algorithms as optimization

Image of vehicle with autopilot capabilities

If (significantDistance and *hasCar* and *carHasAutopilot)*
*Then sitAndRelax(*destination*)*

Eating?

What other factors need to be considered when attempting to eat?

Optimizations in life?

Code optimizes experiences and actions

Effects of Code

Images of technology

Image of like button
Image of heart
Image of fire

Constructive and destructive effects

Don't think "good/bad" "positive/negative"

Construction of connections and social interactions

Destruction of self-esteem and self-perception

Etc.

Image of laughing with tears emoji

Welcome to CodeQuest

You'll experience

HTML	Problem solving	Growth
CSS	Struggling	Awareness
Javascript	Lots of Googling	Optimization
jQuery	"Hi, how do I…?"	Algorithms
Chrome extensions	More Googling	Project lifecycle
Alexa skills	Databases	And more!

Instructor

Vivek Bhookya, UIUC 2020 cs + astronomy rising, junior

Experiences:

HTML/CSS. Scripts since 11th grade

First personal project - Freshman year of college

3 websites | 1 android app | 4 Alexa skills | 4 Chrome extensions

Ask me about: Anything (HTML/CSS/JS, Java/C++/C#/Python, jQuery, Alexa, Chrome ex., databases, algorithms)

Schedule

Hour zero: Review homework, demo and introduction of the day's topics, and instruction

Hour one: Continue instruction with hands-on work

-- Ten-minute break --

Hour two: Instruction ends, then project assignment. Independent work time and teacher meetings

Hour three: Continue development, all students present their progress near day end

Schedule

Day 0 (today) -- What is Code? What can Code do? Github, personal website

Day 1 -- Chrome extensions, task automation, jQuery

Day 2 -- Alexa skills, task automation

Day 3 -- Databases and CRUD. More Alexa

Day 4 -- Students present their projects

Only one thing to take away?

Code is a tool.
The impact of this tool is sometimes unknown.
Be conscious of how code affects you.
Code is never a solution -- rather, a supplement.
You decide what your code supplements.

If you can think it, it can be coded.

Github

Google Drive for code

Let's check it out

Github

- git clone *url nameOfFolder* = Clones a repository onto your machine in a folder named *nameOfFolder*
- git status = View what files are tracked by Git
- git pull = Update your local code with the latest code on the server
- git commit -m "*someMessage*" = Save your changes
- git push = Send your saved changes to the server

Demo with Git and Terminal

Your turn!

Make a Github. Clone the repo. Add your name.
Commit with -m your favorite dessert. Push!

Project

My first website

HTML/CSS

username.github.io

w3schools.com

Checklist

Change the background color

Add a link, "My favorite song," to a YouTube video of your favorite song

Use four different colors throughout your page

Use two different headers

Write one paragraph in orange about your favorite dessert

Add image of dessert under the paragraph

Homework

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?

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