JMS 302: HACKING THE MEDIA

CLASS 14: 10/07/2014

TODAY'S TASKS

- Review Quiz Exercises

- New exercise

- Interactive Zen Garden

QUIZ REVIEW

- <u>Welcome to Hacking HTML</u>

- <u>Grade Calculator</u>

HAMMING DISTANCE

Write a program that can calculate the Hamming difference between two DNA strands.

A mutation is simply a mistake that occurs during the creation or copying of a nucleic acid, in particular DNA. Because nucleic acids are vital to cellular functions, mutations tend to cause a ripple effect throughout the cell. Although mutations are technically mistakes, a very rare mutation may equip the cell with a beneficial attribute. In fact, the macro effects of evolution are attributable by the accumulated result of beneficial microscopic mutations over many generations.

The simplest and most common type of nucleic acid mutation is a point mutation, which replaces one base with another at a single nucleotide.

By counting the number of differences between two homologous DNA strands taken from different genomes with a common ancestor, we get a measure of the minimum number of point mutations that could have occurred on the evolutionary path between the two strands.

This is called the 'Hamming distance.

GAGCCTACTAACGGGAT

CATCGTAATGACGGCCT

From exercism (we'll revisit and see original later).

Our work in class: https://github.com/timreganporter/JMS-302/blob/master/exercises/class_13/hamming.rb

Interactive

CSS Zen Garden

INTERACTIVE CSS ZEN

- We're going to write a ruby script that asks the user specific questions to determine the look of the page and then write that out to a css file. Use methods to do discrete tasks.

- Start simple. Work backwards.

- Ask for: background color, link color, underline links

- Extra credit: Make the first character of the preamble a drop-cap.

- Make sure you have the index.html file from csszengarden.com. Look at the CSS file for ideas. Copy or rename to save original.
- edit html to point to root css
- File name. Hash. write_file.
- ask
- format css, view html
- copy original css, modify background
  - http://www.csszengarden.com/tr/en/001/ (basis for sample css)
  - base url: http://www.csszengarden.com/001/ — we can put this in the css for anything with a url value
- add questions
- Bonus: look for preamble, add special css. You'll need float (left) to make this look right.

Our uncommented code so far: https://github.com/timreganporter/JMS-302/blob/master/exercises/class_13/icsszen/icsszen.rb

IT'S NOT MAGIC

What we do in the class, for the most part, will not be as much "hard" as it will be "new." That will cause it to feel hard at times, but stick with it and you'll get used to it.