CIS 215 Week 9 Guided Notes

Lecture 1: JavaScript Vs PHP

Midterm

Midterm Stats
Practice Midterm

Project 2

Project 2
Communication
  - You should use **discussion boards** to communicate with your group members.
This Week
Individual Grading
  - Don't **wait till the last minute**! This may impact your grade negatively.
Helpful Resources
  - You may get extra credit if you use **jira**

What is JavaScript?

What is JavaScript?
  - JS is a **scripting** language usually used for **front end** development
Progressive Enhancement
  - **In your own words, what is progressive enhancement?**
    Progressive enhancement is making sure that all basic components of a website are easily usable/accessible for as many types of users as possible.
JavaScript Documentation
  - **Put a link to the JS Documentation here:**
    [JavaScript | MDN](#)
JavaScript: Separate Files (.js)

Syntax Differences

C Family
Getting Started & Comments
Commenting Etiquette

- **JSDoc** is a standard for commenting JavaScript Code

Language
- Instructional lines of code are known as **statements.**

Types & Variables
- **What are the differences between JS and PHP in terms of types and variables?**
  Some different types are undefined, number, BigInt and Symbol. Variables don't have to start with a dollar sign, but they can if you want. You can use let, const and var as keywords.

Examples: Types & Variables (let/var/const)

Let vs Var vs Const
- **In your own words, how should you decide between let, var, and const? Typically you should use const whenever it is possible. But you should also keep in mind whether or not changes will need to be made in the future. As constant strings are unchangeable.**

Conditionals / Equality

Post Prompt: Try using comparison operators in JS with different types!

Examples: Conditionals / Equality

Loops
- **For of** is the closest equivalent to the foreach loop

Arrays
- There are 2 ways to create an array: **constructor arrays** or **literal arrays**

Example: Arrays

Example: More Array Stuff

Arrays: Slice and Splice
- **How would you use slice to get the beginning element of an array? What about splice?**
  I would use slice by putting in the start and end point into the array, with a specified portion of what I want returned which would just be the starting element. I would use splice by inserting the start point, then have the delete count number be everything but the start point so that it returns only the starting element.

Important Built-In Functions

Functions

Example: Functions

Post Prompt: Try recreating any function you wrote in PHP, in JavaScript.

Debugging

Activity: Practice

Post Prompt: Complete 3 of the "You Do"s that involved writing code from Week 2 or Week 3, but use JS this time.

Scope
- The 3 main scopes are **global**, **function**, and **block**
Example: Scope
Example: Scope & let
*Post Prompt: What does this code output? What happens if you add a let in front of the x=2 statement?

```
let x = 1;
if(x===1){
        x = 2;
        console.log(x);
}
console.log(x);*
```

Lecture 2: JavaScript Basics

Objects

Objects
Objects: Where are they found?
- Anything that is not of primitive type is an **type object**
Objects: Creation
Objects: Adding Attributes
- There are 2 ways of adding attributes: **bracket notation** or **dot notation**
Objects: Accessing Attributes
Objects: Adding/Accessing Methods
Objects: Parameters in Methods
Objects: Curly Brackets
Objects: Curly Brackets
Objects: Practice
Post Prompt: Create your own simple object. Give it at least 3 attributes and at least 2 methods.

Prototypes

Prototypes
Prototypes: No Prototype?
- An array has prototype **array**, which has prototype **object**, which has prototype **null.**
Objects & Prototypes
Suggested Exercises

Homework 5

Homework 5
- **Do you have any questions about Homework 5?**