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| **College of Engineering**  **Computer Science & Eng. Dept.**  **Course:** CMP 257 Web Application Programming (Lab)  **Date**: 23rd and 25th September, 2024  **Location**: ESB-1010 |  | **Lab Instructor**: Mr. Ali Reza Sajun  **Email**: asajun@aus.edu |

**Lab 4: Introduction to GitHub and JavaScript**

* **Objectives:** 
  + Introduction to GitHub
  + Introduction to JavaScript

# Exercise 1: Github [3 marks]

Use the project you’ve been working on the last few labs for this exercise.

Using the accompanying document with GitHub instructions, create a repository for your website. Add your lab partner to the repository and then have him/her clone your repository, make a small change and push.

Pull the updated code on your side.

Give screenshots of all the steps you followed including creating the repo, cloning, committing, pushing and pulling.

# Exercise 2: JavaScript [7 marks]

Solve the below exercises using any JavaScript compiler of your choice. You can use the console within your browser or online compilers such as <https://jsbin.com/>

For each sub exercise paste the code and a screenshot of your output.

**2a. How Many Pizzas?**

* Imagine you have **3 slices of pizza**, but you’re really hungry and order **2 more pizzas**. Each pizza has **8 slices**. You want to calculate the total number of slices you have.
* Create a program that initializes variables for initial and final number of slices and calculates how many pizza slices you have in total.
* Print out a message to the console informing the user of the number of slices eg. "I have X slices of pizza. Time for a pizza party!"

**2b. The Procrastination Timer**

* Write a function that takes the number of minutes you’ve already studied as input.
* If you’ve studied for more than 60 minutes, log "Wow! You deserve a break! Go scroll through some reels!"
* If you’ve studied for less than 60 minutes, log "Keep going! The course is long and full of terrors!"

**2c. Coffee Addiction Tracker**

* You need to stay awake for **5 days** of finals week, and you drink **3 cups of coffee per day** to survive.
* Write a while loop that calculates how many cups of coffee you’ll drink in total over the 5 days.
* Display an alert like "You’ll need X cups of coffee to survive finals week!”

**2d. The Bot**

Since you love talking to AI, let’s create a simple bot.

* Create a program that simulates a conversation with your AI bot.
* Use a prompt to get a question from the user.
* Use a switch statement to give different responses based on what you ask:
* If you ask "What’s for dinner?", the bot says, "I’m a robot. I don’t eat, but how about pizza?"
* If you ask "What time is it?", the bot says, "It’s time to learn JavaScript!".
* If you ask anything else, the bot responds, "Sorry, I only care about food and coding."
* Use the includes() method to check for keywords.

**2e. Superheroes!**

* + Create a JavaScript object called superhero with properties name, power, and city.
  + Add a method introduce that logs a message introducing the superhero.
  + Log the superhero’s introduction to the console.

**2f. Guess the number**

* Prompt the user to guess your favorite number.
* Use a strict equality (===) check to compare their guess with the correct number.
* Log a different message based on whether they guessed correctly or not.

**Submission:**

Upload the following to iLearn:

* A word document containing screenshots from exercise 1 and code and screenshots of all problems in exercise 2.