Project Description

This project will aim to create a web based hypergeometric calculator. The calculator will take in user input, enter the input into one of several formulas, and then display the results to the screen.

https://github.com/itdev160-sp2025/brian-valin-p2.git

Features

Table to align data

Input for population size

Label for input field

Var for population size

Input for number of successes in population

Label for input field

Var for successes in population size

Input sample size

Label for input field

Var for sample size

Input for number of successes in sample

Label for input field

Var for successes in sample

Output for the exact number of successes

Label for input field

Var for exact

Output for fewer successes

Label for input field

Var for fewer

Output for fewer or equal number of successes

Label for input field

Var for fewer or equal

Output for more successes

Label for input field

Var for successes in more

Output for more or equal number successes

Label for input field

Var for more or equal

Button for initiating a new calculation

Load results graph to page

Technical Tasks

Button functionality

Get element: button

Event listener for clicking button

Get page elements

Get element for all input and output fields

Set input field values to variables

Store variables in array

Write calculated values to output fields

Geometric calculation function

H = (k!/(x!\*(k-x)!)) \* ((N-k)!/((n-x)!\*((N-k)-(n-x))!)) / (N!/(n!\*(N-n)!)

Factorial calculation function

For loop to multiply numbers up to n

Fewer successes function

For loop to run geometric calculation for success numbers less than input

Greater successes function

For loop to run geometric calculation for success numbers greater than input

Inject results graph into website

Use static image to represent “results”

Styles

Import text style

Align header to center

Align table text to right

Align button to center