***Documentation Packet [ 02 30 08 24 ] Aug 30th 2024***

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| Student Name: |  |
| Goals:  1. Define ES6 and NodeJS 2. Accomplish basic tasks in a web page using JavaScript ES6 | Events:  1. DocPac Due *Next Tuesday* 2. No School Monday! |
| Included Documentation  1. JS Browser Calculator 2. ES6 and NodeJS Study | Required Documentation:  1. JS Browser Calculator 2. ES6 and NodeJS Study Reflection |
| Changes/Notes:  * DocPacs are now due on the first school day of the following week it was assigned.   + Submit your DocPacs before class starts | |

# JS Browser Calculator

In this week’s DocPac folder, create a new folder named “jscalc”. Inside of that new folder, create a file called “firstnamelastname.html” (use your names in all lowercase). In that file, accomplish the following:

1. Create two text input elements that only accept numbers and give them each an ID
2. Create a div layer that is empty and give it an ID
3. Create a drop-down menu that contains the options “+”, “-“, “\*”, “/” and “%”. Give it an ID
4. Create a button with an **onclick property** whose value is the function below
5. Create a JavaScript function that does the following:
   1. **Get** each text input **element** in the **document** by their **ID**, and store each of their **value** to variables.
   2. **Get** the drop-down **element** in the **document** by its **ID**, and store its **value** to a variable.
   3. Using a conditional statement, use the arithmetic operator selected in the drop-down menu on the two text box values, and save the result to a new variable.
      1. If the user is attempting to divide or modulus by 0, make the result “Error!”
   4. **Get** the div **element** in the **document** by its **ID**, and change its innerHTML **property** to the result above.
6. **Test your work thouroughly**

When complete, save your work and open a Pull Request to have your work accepted.

# ES6 and NodeJS Study

For each question, research/experiment the question, and answer each question in the box below *in your own words*.

1. What is ES6? How does it relate to NodeJS?

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1. What is the difference between using JavaScript in a Web Browser and in NodeJS?

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1. What is something you can do with JavaScript in a Web Browser that you cannot do in NodeJS?

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1. What is something you can do with JavaScript in NodeJS that you cannot do in a Web Browser?

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1. How would Web Browsers and Nodejs work together?

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1. What is something you did in the JS Browser Calculator that cannot be done in NodeJS alone?

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# Reflection

**How did you use AI to assist you with assignments this week? Do you think it was helpful in retaining the information long-term, and why?**

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**What is one project you think you can accomplish using what you learned this week if you just learned a little bit more? What would you need to research?**

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**Did you practice anything programming related over the weekend? If so, what? If not, how can you create an incentive to do so?**

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**How do you feel about the pace and structure of this class? Do you think it’s good or bad for your learning? How could it be modified to work better?**

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# A picture containing text, monitor, screen, clipart Description automatically generatedGrading

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| 10 | You went above and beyond expectations. You applied knowledge that was not taught in this class in addition to what was taught. Additional rewards are given | * ***If the assignment does not have its own rubric, it will default to the rubric on the left.*** * All assignments start at 10/10 possible points * 1 point is deducted per infraction   + Lateness   + Mistakes   + Unprofessionalism   + Not following instructions * Outstanding submissions, or submissions on assignments not marked in “Required Documentation” can reward pogs |
| 10 | You performed as well as can be expected for this class. You show a complete understanding and made no mistakes. You have mastered the subject. |
| 8 | Assignment is complete. You show a good understanding of the subject, but there are mistakes or minor incorrect details. You are ready to move to new subjects. |
| 7 | You show and understanding of the subject, but there are serious errors, or there are pieces you can practically use without understanding them. Remediation needed. |
| 6 | Assignment is incomplete but/or you showed that you understand at least the fundamentals of the subject. Assignment is low effort. Serious need of remediation. |
| 5 | You show minimum effort, assignment is incomplete, or have serious mistakes. You did not demonstrate that you understand the content or purpose of the submission. |
| 0 | The work was not submitted, damaged, seriously incorrect, or unprofessional. The submission is rejected. |
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# JS Browser Calculator

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| Correct file location and name | Pull Request Accepted | Everything meets program specifications | Code is readable |

# ES6 and NodeJS Study

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| Answered in your own words | Answers were factual | Spelling and Handwriting |  |

# Reflection

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| Selected an answer for the first question that is unique to you and this week | Answered every question in each prompt | Answers were not repeats of previous weeks | Answers were not copies of assigned work this week |