refocus

Home Assignment. Calculation Functions

Mentor-review | Level: Basic | JavaScript

Estimated time of completion: 1 hour

You need to submit this task for review.

Watch the video lessons to complete this task. If you have any questions, you may ask your mentor's help via the use the real time chat on the learning platform. You can find it on the down right corner of your screen.

After you submit the completed task, mentors will review it and send their feedback via email. Don't worry if your work is not approved: you can always retake the assignment, and it won't affect your final grade.

Goal

You will have an object with two numbers and the results of their calculation:

- Sum
- Difference
- Product
- Quotient

You need to create three functions:

- One function should print all the object data on the screen.
- Another function should calculate the sum, difference, product, and quotient.
- The third function should update the initial two numbers so that calculations can be conducted for any numbers.

Task 1: Create an Object Variable

Instructions

To complete the task, follow these steps:

1. Open VS Code, and create a new file. Save it as "javascript_function.js."
2. Create a variable named "obj" using the "let" declaration. Set its key-value pairs as:

```
num1: 100,
num2: 50,
sum: 150,
difference: 50,
product: 500,
quotient: 20
```

Task 2: Print the Object Data

Instructions

To complete the task, follow these steps:

1. Create a function named "showData" with a parameter named "obj."
2. Use the "console.log()" command several times to print each piece of data from the "obj" variable.

Expected Outcome

After completing the task, you should see the following output:

```
============================
First Number: 100
Second Number: 50
The sum is: 150
The difference is: 50
The product is: 500
The quotient is: 20
```

Task 3: Create Functions for Calculations

Instructions

To complete the task, follow these steps:

1. Create a function named "add" with two parameters: "num1" and "num2." The function should return the sum of its parameters.
2. Create a function named "subtract" with two parameters: "num1" and "num2." The function should return the difference of its parameters.
3. Create a function named "multiply" with two parameters: "num1" and "num2." The function should return the product of its parameters.
4. Create a function named "divide" with two parameters: "num1" and "num2." The function should return the quotient of its parameters.

Task 4: Update the Object Data

Instructions

To complete the task, follow these steps:

1. Create a function named "newSetOfNumbers" with two parameters: "num1" and "num2."
2. In the body of the "newSetOfNumbers" function, create a statement that will set the value of "obj.num1" to "num1" and the value of "obj.num2" to "num2."
3. In the body of this function, create a statement that will set the value of "obj.sum," "obj.difference," "obj.product," and "obj.quotient." To do that, use the functions we have created in task 3.

Task 5: Call the Functions

Instructions

To complete the task, follow these steps:

1. Call the "showData" function, and use "obj" as its argument.
2. Call the "newSetOfNumbers" function, and use 200 and 10 as its arguments.
3. Call the "showData" function again, and use "obj" as its argument.
4. Call the "newSetOfNumbers" function again, and use 500 and 20 as its arguments.
5. Call the "showData" function again, and use "obj" as its argument.
6. Run your code.

Expected Outcome

After completing the task, you should see the following output:

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   JUPYTER   Code
[Running] node "c:\Users\Darl Jed\Documents\JS_Homework\javascript_function.js"
============================
First Number: 100
Second Number: 50
The sum is: 150
The difference is: 50
The product is: 500
The quotient is: 20
============================
First Number: 200
Second Number: 10
The sum is: 210
The difference is: 190
The product is: 2000
The quotient is: 20
============================
First Number: 500
Second Number: 20
The sum is: 520
The difference is: 480
The product is: 10000
The quotient is: 25
```

Summary

In this assignment, you can clearly see the importance of using functions. Without them, you would need to manually update all the data in the "obj" variable multiple times. Not only is it time-consuming, but it also makes your code long and messy.

How to upload completed tasks

To upload the assignment, make a ".zip" archive containing all the necessary files, and upload the file here.