refocus

Home Assignment. Package Delivery

Mentor-review | Level: Advanced | 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 are working for a package delivery service provider, and your team is tracking each delivery time in seconds. Your task is to create a program that will convert the duration of each delivery from seconds to a readable format. For example, 5212 seconds should be converted to 1 hour, 26 minutes, and 52 seconds.

Task 1: Convert Seconds to Hours

Goal

You will learn to make your code easier by creating three functions. Let's start with the first one. Create a function that will convert seconds to hours and return the value of an object with two keys: "hours" and "remainder."

Instructions

To complete the task, follow these steps:

1. Open VS Code, and create a new file. Save it as "javascript_function2.js."
2. Define a function named "toHours" with one parameter named "seconds."
3. Create a variable named "hours." Set its value to:

```
Math.floor(seconds / 3600);
```

Hint: We haven't discussed the use of the "Math" object and its functions in JavaScript yet, but we will tackle them in our future lessons.

4. Create another variable named "remainder" and set its value to a statement that computes the remainder of "seconds" divided by 3600.
5. Use the "return" keyword to set the function output as an object with two key-value pairs. The first key is "hour" set to the "hour" variable. The second key is "remainder" set to the "remainder" variable.

Hint: To compute the remainder, use the modulus operator (%).

Hint: The returned value should be of the object data type. Here's an example how it can look: return {field1: variable_value1, field2: variable_value1}.

Task 2: Convert Seconds to Minutes

Goal

Create the second function that will convert seconds to minutes and return the values of an object with two keys: "minutes" and "remainder."

Instructions

To complete the task, follow these steps:

1. Define a function named "toMinutes" with one parameter named "seconds."
2. Create a variable named "minutes." Set its value to:

```
Math.floor(seconds / 60);
```

3. Create another variable named "remainder" and set its value to a statement that computes the remainder of "seconds" divided by 60.
4. Use the "return" keyword to set the function output as an object with two key-value pairs. The first key is "minutes" set to the "minutes" variable. The second key is "remainder" set to the "remainder" variable.

Task 3: Print the Converted Duration

Goal

Create the third function that will call the two previous functions to convert seconds to minutes and hours. This function should return a string with a human readable format of the computed duration.

Instructions

To complete the task, follow these steps:

1. Define a function named "humanDuration" with one parameter named "duration."
2. Create a new variable inside the "humanDuration" function, and name it "hoursObject." Set the value of "hoursObject" by calling the function "toHours" with "duration" as an argument.
3. Create another variable, and name it "minutesObject." Set its value by calling the function "toMinutes" with "duration" as an argument.
4. Create another variable, and name it "seconds." Set its value as "minutesObject.remainder." By doing this, you get the computed remainder of "minutesObject" and set it as the "seconds" variable's value.
5. Use the "return" keyword to set the function output as:

```
`The formatted duration of ${duration} is ${hoursObject.hours} ${hoursObject.hours > 1? "Hours": "Hour"}, ${minutesObject.minutes} ${minutesObject.minutes > 1? "Minutes": "Minute"} and ${seconds} ${seconds > 1? "Seconds": "Second"}.`
```

Task 4: Print the Output

Instructions

Explore the list of deliveries, for which you need to compute the duration in a convenient format.

Delivery #	Duration in seconds
1	4800
2	5212
3	300

To complete the task, follow these steps:

1. Call the "humanDuration" function with an argument set to 4800, and print its returned value.
2. Call the "humanDuration" function again with an argument set to 5212, and print its returned value.
3. Call the "humanDuration" function again with an argument set to 300, and print its returned value.
4. Run your code.

Expected Outcome

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

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   JUPYTER   Code
[Running] node "c:\Users\Dar1 Jed\Documents\JS_Homework\javascript_function2.js"
The formatted duration of 4800 seconds is 1 Hour, 20 Minutes and 0 Second.
The formatted duration of 5212 seconds is 1 Hour, 26 Minutes and 52 Seconds.
The formatted duration of 300 seconds is 0 Hour, 5 Minutes and 0 Second.

[Done] exited with code=0 in 0.347 seconds
```

How to upload completed tasks

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