

Lec08 Exercises

A few exercises from lecture 08 on 9/16/22 for practicing JavaScript.

Content Covered

Expressions, Statements, Variables, Functions, and Selection Statements in JavaScript

Exercise 1

Define a function named `totalCost` which takes a two numerical arguments, a price and a quantity. The price is the price of a single item, and the quantity is the number of that item being purchased. The function should return the total cost of these items.

You can assume that price will be a non-negative number, and that quantity will be a non-negative whole number.

For example: `totalCost(3, 4)` must return 12.

Exercise 2

Now let's extend our previous example to handle the case where an item may be on sale. Define a function named `saleCost` which accepts three arguments, the price of an item, the quantity being purchased, and a boolean value indicating if there is a sale.

If the third argument is `false`, then there is no sale, and you can return the total cost as normal.

If the third argument is `true`, then there is a "buy one get one free" sale, so you only have to pay for half of the items. If you buy 2 items, you only have to pay for 1. If you buy 5 items, two of them will be free so you only have to pay for 3 of them.

Try to come up with your own test cases for this example that test the different cases that can arise before writing your function.

Hint: The `%` operator returns the remainder when dividing two numbers and can be useful for this exercise.
