

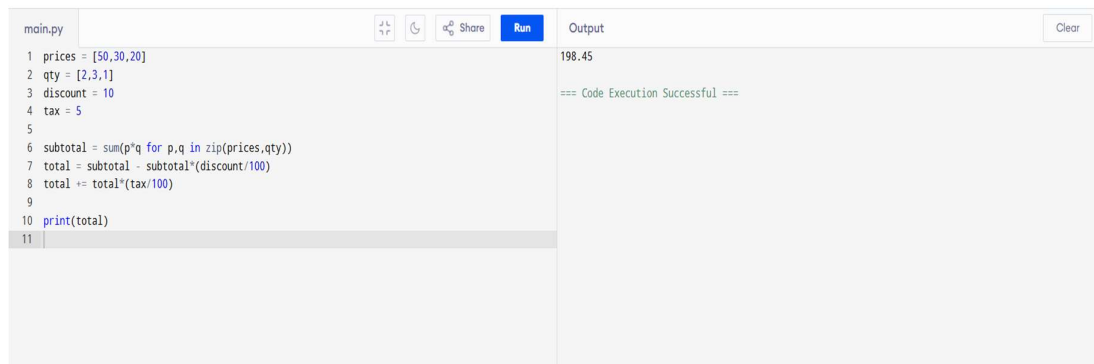
Scenario: You are a cashier at a grocery store and need to calculate the total cost of a customer's purchase, including applicable discounts and taxes. You have the item prices and quantities in separate lists, and the discount and tax rates are given as percentages. Your task is to calculate the total cost for the customer.

Question: Use arithmetic operations to calculate the total cost of a customer's purchase, including discounts and taxes, given the item prices, quantities, discount rate, and tax rate?

AIM: To calculate the total cost of items purchased by applying the given discount and tax to the subtotal amount using basic arithmetic operations in Python.

PROCEDURE:

1. Store the item prices, quantities, discount percentage, and tax percentage in variables.
2. Calculate the subtotal by multiplying each price with quantity and summing them.
3. Apply the discount on the subtotal to get the discounted amount.
4. Add the tax to the discounted total and print the final amount.



The screenshot shows a Python code editor with a file named 'main.py'. The code defines two lists: 'prices' with values [50, 30, 20] and 'qty' with values [2, 3, 1]. It also sets 'discount' to 10 and 'tax' to 5. The code calculates the subtotal by summing the product of each price and quantity. It then applies a 10% discount to the subtotal and adds a 5% tax to the result. Finally, it prints the total cost, which is 198.45. The output window on the right shows the result '198.45' and a message '=== Code Execution Successful ==='.

```
main.py
1 prices = [50,30,20]
2 qty = [2,3,1]
3 discount = 10
4 tax = 5
5
6 subtotal = sum(p*q for p,q in zip(prices,qty))
7 total = subtotal - subtotal*(discount/100)
8 total += total*(tax/100)
9
10 print(total)
11
```

Output

198.45

=== Code Execution Successful ===