PYTHON PROGRAMMING

LAB-20 ANSWERS

HAREESHA H M

AF0364330

1. Calculate the total revenue generated by two product categories in a store

Input: category1\_revenue = np.array([500, 600, 700, 550])

category2\_revenue = np.array([450, 700, 800, 600])

Output: Total Revenue: [ 950 1300 1500 1150]

Code:

import numpy as np #importing numpy as np.

first\_array = np.array([500, 600, 700, 550]) # inputing the first array.

second\_array = np.array([450, 700, 800, 600]) # inputing the second array.

total\_revenue = first\_array + second\_array # adding first\_array and second\_array.

print("Total Revenue:", total\_revenue) #printing the final result as total\_revenue.

Output:

Total Revenue: [ 950 1300 1500 1150]

2. Calculate the profit made by a company

 Input: revenue = np.array([10000, 12000, 11000, 10500])

expenses = np.array([4000, 5000, 4500, 4800])

Output: Profit: [6000 7000 6500 5700]

Code:

import numpy as np #importing numpy as np.

first\_array = np.array([10000, 12000, 11000, 10500]) # inputing the first array.

second\_array = np.array([4000, 5000, 4500, 4800])  # inputing the second array.

final\_result= np.subtract(first\_array, second\_array) # substracting of first\_array with second\_array.

print("Profit:", final\_result) # printing the final result as final\_result.

Output:

Profit: [6000 7000 6500 5700]

3. Determine which products in a store are out of stock (quantity is 0).

Input: inventory = np.array([10, 0, 5, 0, 20, 0])

Output: Out of Stock Products: [0 0 0]

Code:

import numpy as np #importing numpy as np.

array = np.array([10, 0, 5, 0, 20, 0]) # inputing array of elements.

out\_of\_stock\_products = inventory == 0

print("Out of Stock Products:", inventory[out\_of\_stock\_products]) #printing final result.

Output:

Out of Stock Products: [0 0 0]

4.Calculate the total cost of items in a shopping cart, considering the quantity and price per item.

Input: quantity = np.array([2, 3, 4, 1])

price\_per\_item = np.array([10.0, 5.0, 8.0, 12.0])

Output: Total Cost of Items: [20. 15. 32. 12.]

Code:

import numpy as np # importing numpy as np.

First\_list = np.array([2, 3, 4, 1]) # inputing array of list.

Second\_list = np.array([10.0, 5.0, 8.0, 12.0]) # inputing array of list.

total\_cost = np.multiply(First\_list,Second\_list)# multiplaying two array lists.

print("Total Cost of Items:", total\_cost) # printing the final result as total\_cost.

Output:

Total Cost of Items: [20. 15. 32. 12.]