………………………………………………….Assignment……………………………………………………………..

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])

//code

Import numpy as np

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

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

total\_revenue = category1\_revenue + category2\_revenue

print(“Total revenue:”,total\_revenue)

output: Total revenue: [950 1300 1500 1150]

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2. Calculate the profit made by a company

Input:

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

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

//code

import numpy as np

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

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

profit = revenue - expenses

print("Profit:", profit)

output: Profit: [6000 7000 6500 5700]

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

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

//code

import numpy as np

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

out\_of\_stock = np.where(inventory == 0)[0]

print("Out of Stock Products:", out\_of\_stock)

output: Out of Stock Products: [1 3 5]

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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])

//code

import numpy as np

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

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

total\_cost = quantity \* price\_per\_item

print("Total Cost of Items:", total\_cost)

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

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