

ASSESSMENT 3: PROGRAMMING PRINCIPLES AND CONCEPTS: RESEARCH REPOSITORY

Assessment Overview:

For this assignment, you're expected to create a research repository that explores programming principles and concepts. Your repository must include:

- a collection of your own codes
- codes that you've been inspired by or practiced (with comments)
- programming principles and concepts that you think are interesting or just don't understand (with commentary and analysis)

My Code and Explanation below:

```
C: > Users > juras > OneDrive > All Python > Helpful Python Code > ShoppingCart.py > ...
1  foods = []
2  prices = []
3  total = 0
4
5  while True:
6      food = input("Enter a food to buy (q to quit): ")
7      if food.lower() == "q":
8          break
9      else:
10         price = float(input(f"Enter the price of a {food}: $"))
11         foods.append(food)
12         prices.append(price)
13
14     print("----- YOUR CART -----")
15
16     for food in foods:
17         print(food, end=" ")
18
19     for price in prices:
20         total += price
21
22     print()
23     print(f"Your total is: ${total}")
```

Above is a screenshot of my own code that I tried out in Visual Studio Code. I found this code particularly intriguing compared to others. What intrigued me the most was the outcome in the terminal. Initially, I believed that Python couldn't perform calculations or mathematical operations unless explicitly coded. However, when I added items to my 'Shopping cart,' I discovered that I had the freedom to set prices and add as many items as I wanted, no matter how absurd it might seem, and the program still executed without errors and gave the correct total outcome.

The main point I'm trying to make is that it wasn't just the code that surprised me; rather, it's how the program can execute actions I didn't anticipate.