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Assignment 4

1. Postfix and Prefix Notations

- a. True
- b. OUTPUT:
 - i. "The value of z is 19"
 - ii. "The Value of y is 18"
- c. The issue is that the "++" is not connected to a variable. You can not increment an expression.

2. Different Types of Loops

- a. Convert the following while loop to a do-while loop.

```
int x = 1;
do
{
    cout << "enter a number: ";
    cin >> x;
}
while (x > 0);
```

- b. Convert the following while loop to a for loop.

```
int count = 0;
for (count; count < 50; count)
{
    cout << "count is " << count << endl;
}
```

3. Sum of Numbers

- a.

```
Enter a positive integer: 100
The sum of all positive EVEN integers from 2 to 100 is: 2550
```

4. Grocery List

```
*****GROCERY LIST*****
1. Wal-Mart
2. Hometown Market
3. Sam's Club
4. Done
Select a menu option: 1
*****WALMART*****
Enter your first item: Apple
Enter your second item: Banana
Enter your third item: Orange
Enter your fourth item: Oreos
Enter your fifth item: Rice
*****GROCERY LIST*****
1. Wal-Mart
2. Hometown Market
3. Sam's Club
4. Done
Select a menu option: 2
*****Hometown Market*****
Enter your first item: Apple
Enter your second item: Banana
Enter your third item: Orange
Enter your fourth item: Oreos
Enter your fifth item: Rice
*****GROCERY LIST*****
1. Wal-Mart
2. Hometown Market
3. Sam's Club
4. Done
Select a menu option: 3
*****Sam's Club*****
Enter your first item: Apple
Enter your second item: Banana
Enter your third item: Orange
Enter your fourth item: Oreos
Enter your fifth item: Rice
*****GROCERY LIST*****
1. Wal-Mart
2. Hometown Market
3. Sam's Club
4. Done
Select a menu option: 4
Walmart
Apple
Banana
Orange
Oreos
Rice

Hometown Market
Apple
Banana
Orange
Oreos
Rice

Sam's Club
Apple
Banana
Orange
Oreos
Rice
```

a.

5. Using Files – Numeric Processing

```
There are 32 numbers in the file.
The average of the first 22 numbers is: 42968.5
The sum of the first 15 numbers is: 629961
The minimum value found in the file is: 14692
The maximum value found in the file is: 83015
```

a.

6. Stock Market Bar Chart

```
PS C:\Users\Value
2021|*****
2020|*****
2019**|
2018|***
2017|*****
2016|*****
2015|*****
```

a.

7. Improving past code

```
Windows PowerShell
PS C:\Users\Valued Customer\OneDrive\Desktop\Development\CS317\CS317\Ass
Enter first competitor: Stefen

Enter second competitor: Blake

Enter third competitor: Cory
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
4. Final Results
5. EXIT
1
Enter the number of stones Stefen was able to lift for attempt 1:
6
Enter the number of stones Blake was able to lift for attempt 1:
5
Enter the number of stones Cory was able to lift for attempt 1:
5
Enter the number of stones Stefen was able to lift for attempt 2:
5
Enter the number of stones Blake was able to lift for attempt 2:
6
Enter the number of stones Cory was able to lift for attempt 2:
7
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
4. Final Results
5. EXIT
2
Enter the number of seconds Stefen took to complete attempt 1:
16.45
Enter the number of seconds Blake took to complete attempt 1:
20.58
Enter the number of seconds Cory took to complete attempt 1:
22.38
Enter the number of seconds Stefen took to complete attempt 2:
16.78
Enter the number of seconds Blake took to complete attempt 2:
19.71
Enter the number of seconds Cory took to complete attempt 2:
21.94
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
4. Final Results
5. EXIT
3
Number of pounds Stefen lifted in attempt 1:
380
Number of pounds Blake lifted in attempt 1:
300
Number of pounds Cory lifted in attempt 1:
340
Number of pounds Stefen lifted in attempt 2:
408
Number of pounds Blake lifted in attempt 2:
345
Number of pounds Cory lifted in attempt 2:
375
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
4. Final Results
5. EXIT
4
```

a.

```
Windows PowerShell
2. Farmers Frame Medley
3. Axle Deadlift
4. Final Results
5. EXIT
2
Enter the number of seconds Stefen took to complete attempt 1:
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Enter the number of seconds Blake took to complete attempt 1:
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Please select which event you would like to enter data for (1-3):
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Number of pounds Cory lifted in attempt 1:
340
Number of pounds Stefen lifted in attempt 2:
408
Number of pounds Blake lifted in attempt 2:
345
Number of pounds Cory lifted in attempt 2:
375
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
4. Final Results
5. EXIT
4
***** Stone Over Bar *****
Competitors    Stones Lifted    Points    Place
Stefen         8                2         2
Blake          5                2         2
Cory           6                3         1
***** Farmers Frame Medley *****
Competitors    Seconds    Points    Place
Stefen         16.45      3         1
Blake          19.71      2         2
Cory           21.94      1         3
***** Axle Deadlift *****
Competitors    Pounds    Points    Place
Stefen         8          3         1
Blake          5          1         3
Cory           6          2         2
***** FINAL *****
Stefen         1          8
Blake          3          5
Cory           2          6
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
4. Final Results
5. EXIT
|
```

b.