

Looping Labs

Utilizing the Beginning Visual C# Programming book by Wrox, chapter 4, as a reference for looping logic to perform the following labs:

1. For Loop Labs

- a. **Create a loop that will count and print to the screen the numbers 1-20**
 - i. Change the loop to count by 2's (even numbers 2-20)
 - ii. Change the loop to count by 3's (3-18)
 - iii. Change the loop to count by 2's (odd numbers up to 19 only)
- b. **Create a loop that will count from 1-20 and add that value to a running total variable, which you will then print out after it is finished (210 output)**
 - i. Change the loop to count by even numbers (output 110)
 - ii. Change the loop to count by 3's (output 63)
 - iii. Change the loop to count by odd numbers (output 100)

2. ForEach Loop Labs

- a. **Create an array of numbers `int[] numbers = new int[] { 10, 20, 30, 40, 50, 60, 70, 80, 90, 100};`**
- b. Using a foreach loop, **determine the number of values in the array and print it to the screen** (answer is 10)
- c. Using a foreach loop, **determine the sum of all the values in the array and print it to the screen** (answer is 550)
- d. **Challenge – Repeat step c, but only for integers divisible by 3** (answer is 180)

3. While Loop Labs

- a. **Create a while loop that asks a user whether they want to keep going. Repeat the question until the user opts out.**
- b. **Create a while loop that will repeat while a value is less than 100**
 - i. Have the code inside the while loop print the value every time the loop code executes
 - ii. Make sure to add your update statement to the loop to increment the counter value

4. Do While Loop Labs

- a. **Create a menu of 3-4 simple options for a user using the do while loop.**
One option should be the option to exit the loop
 - i. When the user chooses the exit option, have it end your loop, otherwise print some relevant text for the option they did choose and allow the loop to continue