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In [ ]: #control_structures.py
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In [20]: def classify_number(n):  
    if n % 2 == 0:  
        return "even" # Proper indentation  
    else:  
        return "odd"  
    user_input = int(input("Enter an integer: "))  
    print(f"The number {user_input} is {classify_number(user_input)}.")  
  
    even_numbers = [num for num in range(1,51) if num % 2 == 0]  
    print("Even numbers from 1 to 50:", even_numbers)  
  
    print("Counting down from 1 to 10: ")  
    num = 10  
    while num >= 1:  
        print(num, end=" ")  
        num -= 1  
    print()
```

The number 45 is odd.

Even numbers from 1 to 50: [2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50]

Counting down from 1 to 10:

10 9 8 7 6 5 4 3 2 1

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