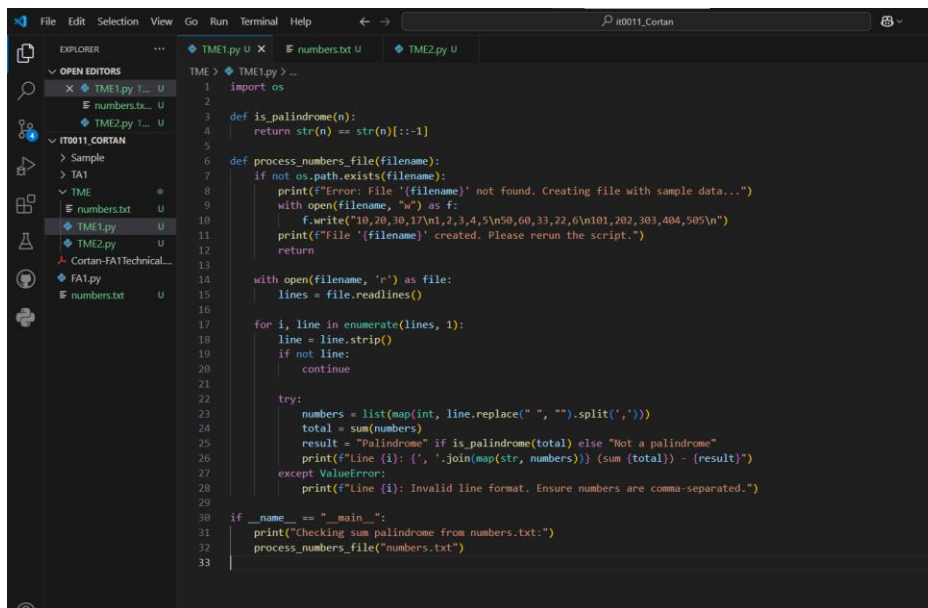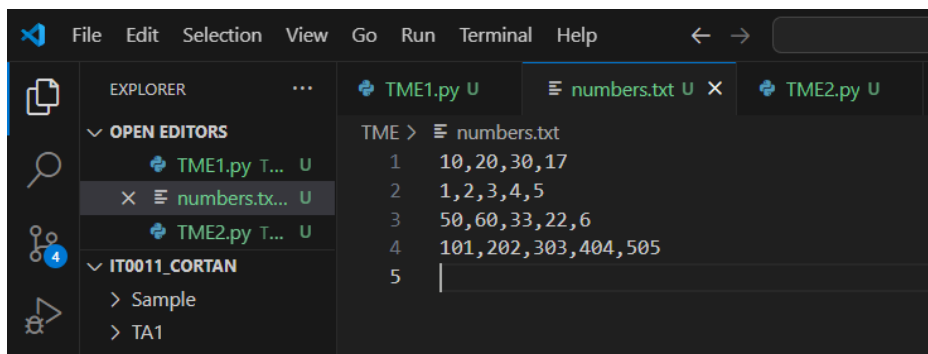**John Rosedel R. Cortan**

TW23

Technical Midterm Exam

1. **Palindrome or Not Palindrome**

Source Code:


```python
import os

def is_palindrome(n):
    return str(n) == str(n)[::-1]

def process_numbers_file(filename):
    if not os.path.exists(filename):
        print(f"Error: File '{filename}' not found. Creating file with sample data...")
        with open(filename, "w") as f:
            f.write("10,20,30,17\n1,2,3,4,5\n50,60,33,22,6\n101,202,303,404,505\n")
        print(f"File '{filename}' created. Please rerun the script.")
        return

    with open(filename, 'r') as file:
        lines = file.readlines()

    for i, line in enumerate(lines, 1):
        line = line.strip()
        if not line:
            continue

        try:
            numbers = list(map(int, line.replace(" ", "").split(',')))
            total = sum(numbers)
            result = "Palindrome" if is_palindrome(total) else "Not a palindrome"
            print(f"Line {i}: {', '.join(map(str, numbers))} (sum {total}) - {result}")
        except ValueError:
            print(f"Line {i}: Invalid line format. Ensure numbers are comma-separated.")

if __name__ == "__main__":
    print("Checking sum palindrome from numbers.txt:")
    process_numbers_file("numbers.txt")
```



```
numbers.txt
1   10,20,30,17
2   1,2,3,4,5
3   50,60,33,22,6
4   101,202,303,404,505
5   |
```
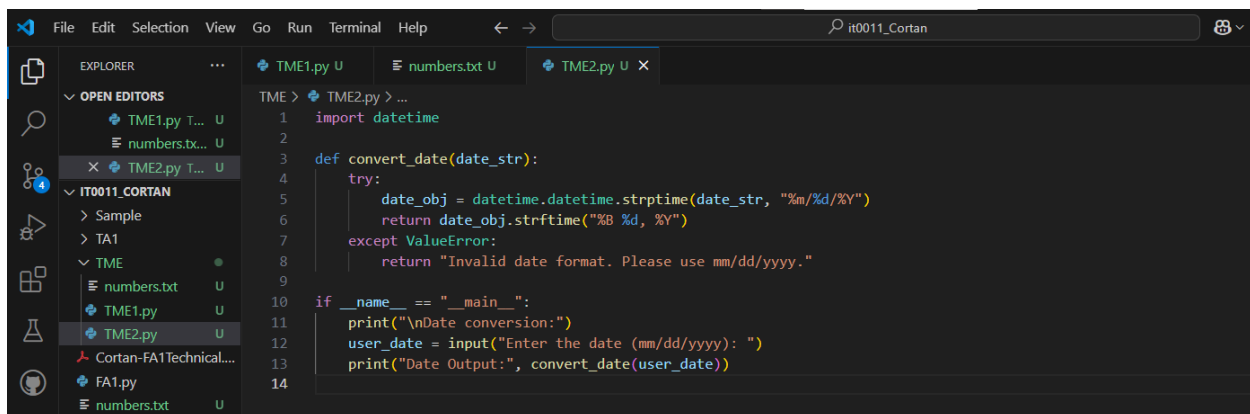
Result:

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   COMMENTS

PS C:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan> python -u "c:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan\TME\TME1.py"
Checking sum palindrome from numbers.txt:
Line 1: 10, 20, 30, 17 (sum 77) - Palindrome
Line 2: 1, 2, 3, 4, 5 (sum 15) - Not a palindrome
Line 3: 50, 60, 33, 22, 6 (sum 171) - Palindrome
Line 4: 101, 202, 303, 404, 505 (sum 1515) - Not a palindrome
PS C:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan>
```

2. Date Format

Source Code:

Result:

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   COMMENTS

PS C:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan> python -u "c:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan\TME\TME2.py"

Date conversion:
Enter the date (mm/dd/yyyy): 07/24/2003
Date Output: July 24, 2003
PS C:\Users\John John\OneDrive\Documents\GitHub\it0011_Cortan>
```