

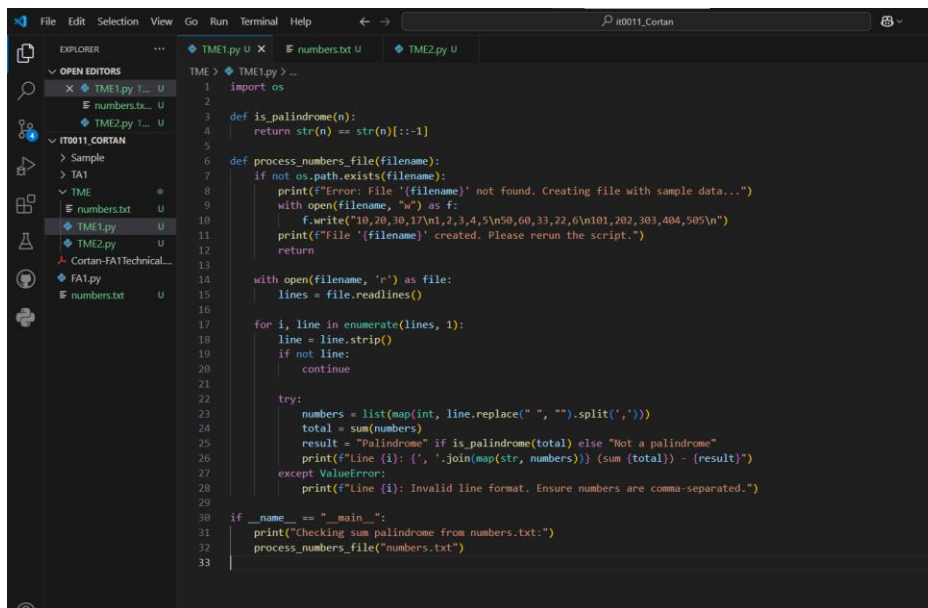
John Rosedel R. Cortan

TW23

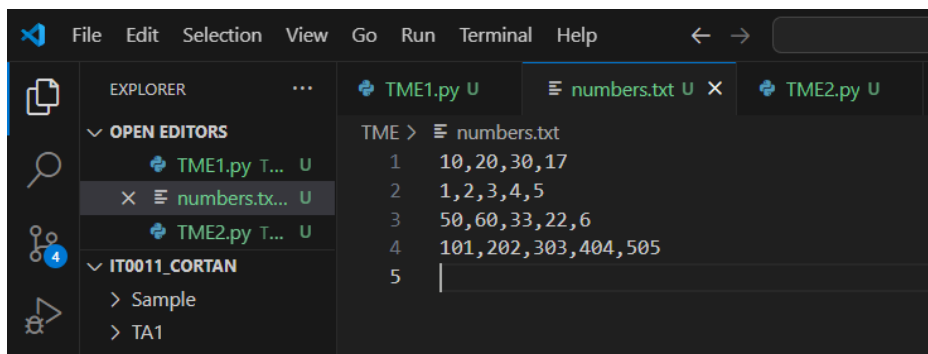
Technical Midterm Exam

1. Palindrome or Not Palindrome

Source Code:



```
1 import os
2
3 def is_palindrome(n):
4     return str(n) == str(n)[::-1]
5
6 def process_numbers_file(filename):
7     if not os.path.exists(filename):
8         print(f"Error: File '{filename}' not found. Creating file with sample data...")
9         with open(filename, "w") as f:
10             f.write("10,20,30,17\n1,2,3,4,5\n50,60,33,22,6\n101,202,303,404,505\n")
11         print(f"File '{filename}' created. Please rerun the script.")
12         return
13
14     with open(filename, "r") as file:
15         lines = file.readlines()
16
17     for i, line in enumerate(lines, 1):
18         line = line.strip()
19         if not line:
20             continue
21
22         try:
23             numbers = list(map(int, line.replace(" ", "").split(',')))
24             total = sum(numbers)
25             result = "Palindrome" if is_palindrome(total) else "Not a palindrome"
26             print(f"Line {i}: {', '.join(map(str, numbers))} (sum {total}) - {result}")
27         except ValueError:
28             print(f"Line {i}: Invalid line format. Ensure numbers are comma-separated.")
29
30 if __name__ == "__main__":
31     print("Checking sum palindrome from numbers.txt:")
32     process_numbers_file("numbers.txt")
33
```



```
TME > 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
```

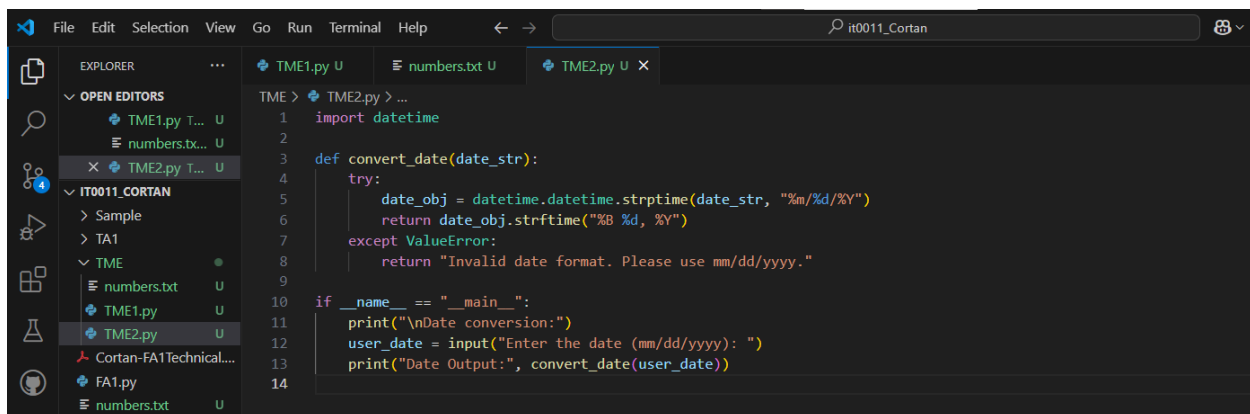
Result:

```
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:



```
File  Edit  Selection  View  Go  Run  Terminal  Help  ← →  it0011_Cortan

EXPLORER  ...
OPEN EDITORS
  TME1.py T... U
  numbers.tx... U
  TME2.py T... U
IT0011_CORTAN
  Sample
  TA1
  TME
    numbers.txt U
    TME1.py U
    TME2.py U
  Cortan-FA1Technical...
  FA1.py
  numbers.txt U

TME > TME2.py > ...
1  import datetime
2
3  def convert_date(date_str):
4      try:
5          date_obj = datetime.datetime.strptime(date_str, "%m/%d/%Y")
6          return date_obj.strftime("%B %d, %Y")
7      except ValueError:
8          return "Invalid date format. Please use mm/dd/yyyy."
9
10 if __name__ == "__main__":
11     print("\nDate conversion:")
12     user_date = input("Enter the date (mm/dd/yyyy): ")
13     print("Date Output:", convert_date(user_date))
14
```

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>
```