AI ASSISTED CODING
LAB TEST-1 (26-08-2025)

TASK-1:

PROMPT: write a simple python code to generate and check the given string is palindrome or not using function.

Code:

1.py

```python
#write  a simple python  code to generate and check the given string is palindrome or not using function
def is_palindrome(string):
    cleaned = string.replace(" ", "").lower()
    return cleaned == cleaned[::-1]

def main():
    print("Palindrome Checker")
    print("=" * 20)

    test_cases = ["racecar", "hello", "Madam", ]

    for test in test_cases:
        result = is_palindrome(test)
        print(f"'{test}' -> {result} Palindrome" if result else f"'{test}' -> {result} Not Palindrome")

    while True:
        user_input = input("\nEnter a string (or 'quit'): ").strip()
        if user_input.lower() == 'quit':
            break
        if user_input:
            result = is_palindrome(user_input)
            print(f"'{user_input}' -> {result} Palindrome" if result else f"'{user_input}' -> {result} Not Palindrome")

if __name__ == "__main__":
    main()
```

Output:

```
PS C:\ai exam>  & 'c:\Users\Poojasree\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\Poojasree\.cursor\extensions\
ms-python.debugpy-2025.6.0-win32-x64\bundled\libs\debugpy\launcher' '58561' '--' 'C:\ai exam\1.py'
Palindrome Checker
==================
'racecar' -> True Palindrome
'hello' -> False Not Palindrome
'Madam' -> True Palindrome

Enter a string (or 'quit'): lol
'lol' -> True Palindrome

Enter a string (or 'quit'):
```

Explanation:

Palindrome Checker - Short Note

Function: `is_palindrome()` removes spaces, converts to lowercase, and checks if string equals its reverse using `string[::-1]`.

Test Cases: Automatically tests "racecar", "hello", "Madam", and "12321" to show results.

Output Format: Displays "True Palindrome" for palindromes and "False Not Palindrome" for non-palindromes.

Interactive Mode: Continuously accepts user input, checks if palindromes, and shows results until user types 'quit'.

Execution: Uses `if __name__ == "__main__":` to run main function only when script is executed directly.

TASK-2:

PROMPT: Generate a python program to find the largest and smallest numbers in a list provided by user.

Code , output,explanation: