

**10.WRITE A PROGRAM TO CHECK WHETHER A GIVEN STRING IS PALINDROME OR NOT USING RECURSION.**

**PROGRAM:**

```
def is_palindrome(s):  
    s = s.lower().replace(" ", "") # Convert to lowercase and remove spaces  
    if len(s) <= 1:  
        return True  
    if s[0] != s[-1]:  
        return False  
    return is_palindrome(s[1:-1])
```

**# Test the function**

```
input_string = "A man a plan a canal Panama"
```

```
if is_palindrome(input_string):
```

```
    print(f'{input_string} is a palindrome.')
```

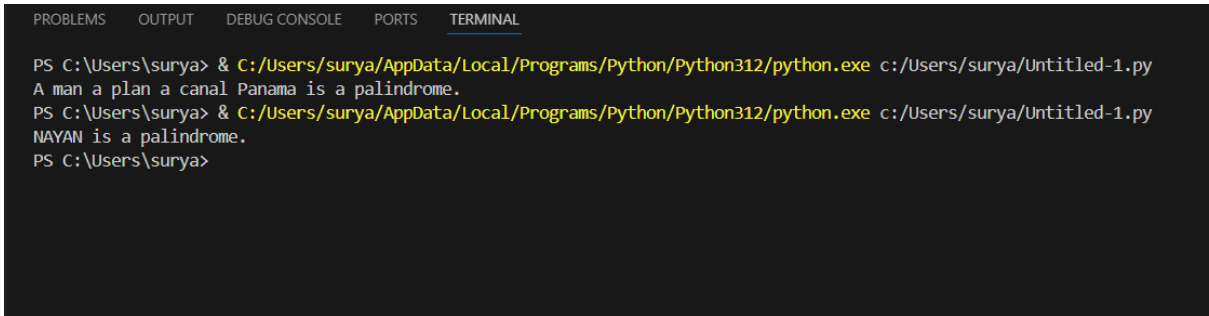
```
else:
```

```
    print(f'{input_string} is not a palindrome.')
```

**TIME COMPLEXITY:O(n)**

**INPUT:NAYAN**

**OUTPUT:**



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  PORTS  TERMINAL  
PS C:\Users\surya> & C:/Users/surya/AppData/Local/Programs/Python/Python312/python.exe c:/Users/surya/Untitled-1.py  
A man a plan a canal Panama is a palindrome.  
PS C:\Users\surya> & C:/Users/surya/AppData/Local/Programs/Python/Python312/python.exe c:/Users/surya/Untitled-1.py  
NAYAN is a palindrome.  
PS C:\Users\surya>
```