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SLOT-B

PYTHON PROGRAMMING FOR BLOCK CHAIN PROJECTS

CSA0815

## PROBLEM STATEMENT:

Write a program that checks if a given string is a palindrome (reads the same forward and backward). The program should ignore spaces and handle mixed-case inputs.
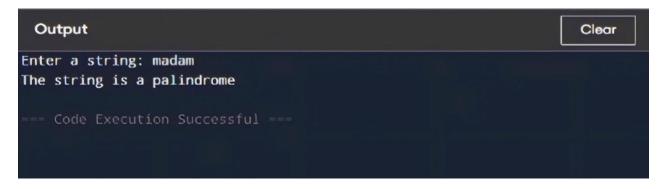
## FUNCTIONAL REQUIREMENTS:

- Accept a string as input.
- Check if the string is the same when reversed, ignoring spaces and case.
- Display whether the string is a palindrome or not.

## Code:

```python
def is_palindrome(text):
    # Remove spaces and convert to lowercase
    cleaned_text = ''.join(text.split()).lower()
    # Check if it's a palindrome
    if cleaned_text == cleaned_text[::-1]:
        print("The string is a palindrome")
    else:
        print("The string is not a palindrome")

# Example usage
user_input = input("Enter a string: ")
is_palindrome(user_input)
```

## SAMPLE TEST CASES:

### Palindrome (Normal Case):

```
Output                                          Clear

Enter a string: madam
The string is a palindrome

=== Code Execution Successful ===
```

### Palindrome (With Spaces):

```
Output                                          Clear

Enter a string: A man a plan a canal panama
The string is a palindrome

=== Code Execution Successful ===
```

### Non-Palindrome:

```
Output                                          Clear

Enter a string: hello
The string is not a palindrome

=== Code Execution Successful ===
```

## Palindrome (Mixed Case):

```
Output                                    Clear

Enter a string: Racecar
The string is a palindrome

=== Code Execution Successful ===
```