

6. Write a program for to copy one string to another using recursion

Code:

```
def copy_string_recursive(source, destination='', index=0):  
    if index == len(source):  
        return destination  
    destination += source[index]  
    return copy_string_recursive(source, destination, index + 1)  
  
source_string = input("Enter the source string: ")  
copied_string = copy_string_recursive(source_string)  
print(f"Copied string: {copied_string}")
```

Output:

```
Enter the source string: hello  
Copied string: hello
```

Time Complexity:

- $T(n) = O(n)$