

What is a Palindrome?

A **palindrome** is a word or phrase that reads the **same forward and backward**.

✓ Examples:

- "madam"
- "racecar"
- "level"
- "radar"

✗ Not palindromes:

- "hello"
- "python"
- "banana"

Step 1: Ask for user input

```
word = input("Enter a word: ").lower()
```

Step 2: Create an empty string to build the reversed word

```
reversed_word = ""
```

Step 3: Use a **for** loop to reverse the word

```
for char in word:  
    reversed_word = char + reversed_word
```

Step 4: Compare the original and reversed word

```
if word == reversed_word:
    print("It's a palindrome!")
else:
    print("Not a palindrome.")
```

Your completed code should look like this

```
word = input("Enter a word: ").lower()
reversed_word = ""

# Reverse the string using a loop
for char in word:
    reversed_word = char + reversed_word # build it backwards

print("Reversed word:", reversed_word)

if word == reversed_word:
    print("It's a palindrome!")
else:
    print("Not a palindrome.")
```

Additional Questions/Challenges:

Will the current program still work when there is space (i.e. nurses run)? Why or why not?