

# AI ASSISTED CODING

LAB EXAM:1

1. Write a comment prompt with 2-3 examples asking copilot / Gemini to generate a python function that checks wheather a string is a palindrome

The image shows a Google Colab notebook on the left and a Gemini chat interface on the right. The Colab notebook has two code cells. The first cell defines a function `is_palindrome(s)` that returns `s == s[::-1]` and then checks a list of strings: `["Prathyusha", "mom", "606"]`. The output shows that "Prathyusha" is not a palindrome, while "mom" and "606" are. The second cell finds the largest number in a list `[15, 22, 8, 30, 5, 1]`, which is 30. The Gemini chat interface on the right shows a prompt asking for a function to check if strings are palindromes. The Gemini response provides a detailed breakdown of the code logic, explaining each line of the function and the list iteration. The bottom of the image shows a Windows taskbar with various icons and the system clock indicating 9:59 AM on 26-08-2025.

Untitled8.ipynb - Colab

colab.research.google.com/drive/1luivlqB4Z0OhiN5Ah2hgctNQ41Z0pK9H#scrollTo=7773620f

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Untitled8.ipynb

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Commands + Code + Text Run all

Start coding or generate with AI.

```
[5] def is_palindrome(s):  
    return s == s[::-1]  
  
strings_to_check = ["Prathyusha", "mom", "606"]  
  
for s in strings_to_check:  
    if is_palindrome(s):  
        print(f'{s} is a palindrome')  
    else:  
        print(f'{s} is not a palindrome')
```

'Prathyusha' is not a palindrome  
'mom' is a palindrome  
'606' is a palindrome

```
numbers = [15, 22, 8, 30, 5, 1]  
  
largest_number = numbers[0]  
smallest_number = numbers[0]  
  
for number in numbers:  
    if number > largest_number:  
        largest_number = number
```

Variables Terminal

2 cm of rain Today

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9:59 AM Python 3

26-08-2025

Gemini

through a list of strings and prints whether each string is a palindrome or not based on the result of the function call.

Here's a breakdown:

- `def is_palindrome(s):`: This line defines a function named `is_palindrome` that takes one argument, `s` (which is expected to be a string).
- `return s == s[::-1]`: This is the core of the palindrome check.
  - `s[::-1]` creates a reversed version of the input string `s`.
  - `s == s[::-1]` compares the original string `s` with its reversed version. If they are the same, the function returns `True` (meaning the string is a palindrome), otherwise it returns `False`.
- `strings_to_check = ["Prathyusha", "mom", "606"]`: This line creates a list of strings that we want to check.
- `for s in strings_to_check:`: This loop iterates through each string in the `strings_to_check` list. In each iteration, the current string is assigned to the variable `s`.
- `if is_palindrome(s):`: This line calls the `is_palindrome` function with the current string `s`. If the function returns `True` (meaning the string is a palindrome), the code inside the `if` block is executed.
- `print(f'{s} is a palindrome')`: This line prints a message indicating that the current string `s` is a palindrome.
- `else:`: If the `is_palindrome(s)` call returns `False`, the code inside the `else` block is executed.
- `print(f'{s} is not a palindrome')`: This line prints a message indicating that the current string `s` is not a palindrome.

What can I help you build?

Gemini can make mistakes so double-check it and use code with caution. [Learn more](#)

2. Ask google copilot/Gemini to generate a python program that finds the largest and smallest numbers in a user-provided list. Then, ask gemini to explain how the code works

Untitled8.ipynb - Colab

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Commands + Code + Text Run all

0s

```
numbers = [15, 22, 8, 30, 5, 1]

largest_number = numbers[0]
smallest_number = numbers[0]

for number in numbers:
    if number > largest_number:
        largest_number = number
    if number < smallest_number:
        smallest_number = number

print(f"The largest number is: {largest_number}")
print(f"The smallest number is: {smallest_number}")
```

The largest number is: 30

The smallest number is: 1

Gemini

Here's a breakdown:

1. `numbers = [15, 22, 8, 30, 5, 1]` : This line initializes a list named `numbers` with several integer values.

2. `largest_number = numbers[0]` : This line initializes a variable `largest_number` with the first element of the `numbers` list. This assumes the first element is initially the largest, which will be compared against other elements in the list.

3. `smallest_number = numbers[0]` : Similarly, this line initializes a variable `smallest_number` with the first element of the `numbers` list, assuming it's initially the smallest.

4. `for number in numbers:` : This loop iterates through each element in the `numbers` list. In each iteration, the current number is assigned to the variable `number`.

5. `if number > largest_number:` : This condition checks if the current `number` is greater than the current value of `largest_number`.

6. `largest_number = number` : If the condition in step 5 is true, it means the current `number` is larger than the current `largest_number`, so `largest_number` is updated to the value of the current `number`.

7. `if number < smallest_number:` : This condition checks if the current `number` is smaller than the current value of `smallest_number`.

8. `smallest_number = number` : If the condition in step 7 is true, it means the current `number` is smaller than the current `smallest_number`, so `smallest_number` is updated to the value of the current `number`.

9. `print(f"The largest number is: {largest_number}")` : After the loop finishes, this line prints the final value of `largest_number`.

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Variables

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10:18 26-08-2025