Python Challenge 🐍

DAY 12

Topic: "Validating Gmail using Regex in Python 🚀"

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What is Regex?"

- It is a powerful pattern-matching tool used to **search, validate**, or **manipulate text** based on defined rules.

- It's like giving Python a template to recognize specific text formats.

- Widely used in **data validation, web scraping, and text processing.**

- Python provides the built-in **re module** to work with regular expressions easily.

- It makes complex string operations **faster** and **more efficient** than manual methods.

💻 Python Code

EXPLORER   ···   fnum.py   🐍 8charpassword.py   🐍 countwords.py   🐍 car.py   🐍 electriccar.py   🐍 read

∨ 30   🐍 gmail.py > ...

🐍 8charpassword.py   1   import re
📊 30_days_Python_LaxmiPras...   2
🖼 30daypython.png   3   def validate_gmail(email):
🐍 arofrectangle.py   4   pattern = r'^[a-zA-Z0-9._%+-]+@gmail\.com$'
🐍 car.py   5   return bool(re.match(pattern, email))
🐍 countwords.py   6
📕 DataAnalystRoadmap.pdf   7   email = input("Enter your Gmail address: ")
☰ datamap.txt   8
🖼 day2.jpeg   9   if validate_gmail(email):
🖼 day3.png   10   print("Valid Gmail address!✅")
🖼 day4.jpeg   11   else:
🖼 day5.jpeg   12   print("Invalid Gmail address❌. Please enter a valid Gmail ID.")
🖼 day5code.png   13
🖼 day6.jpeg
🖼 day6code.png
🖼 day7.jpeg
🖼 day7code.png

🔍 How It Works

Import & Regex Pattern

- **import re** brings in Python's regex module.

- A regex pattern (^[a-zA-Z0-9._%+-]+@gmail\.com$) is defined to match valid Gmail addresses.

Function Definition

- validate_gmail(email) checks if the input email matches the **pattern** using re.match() and returns True or False.
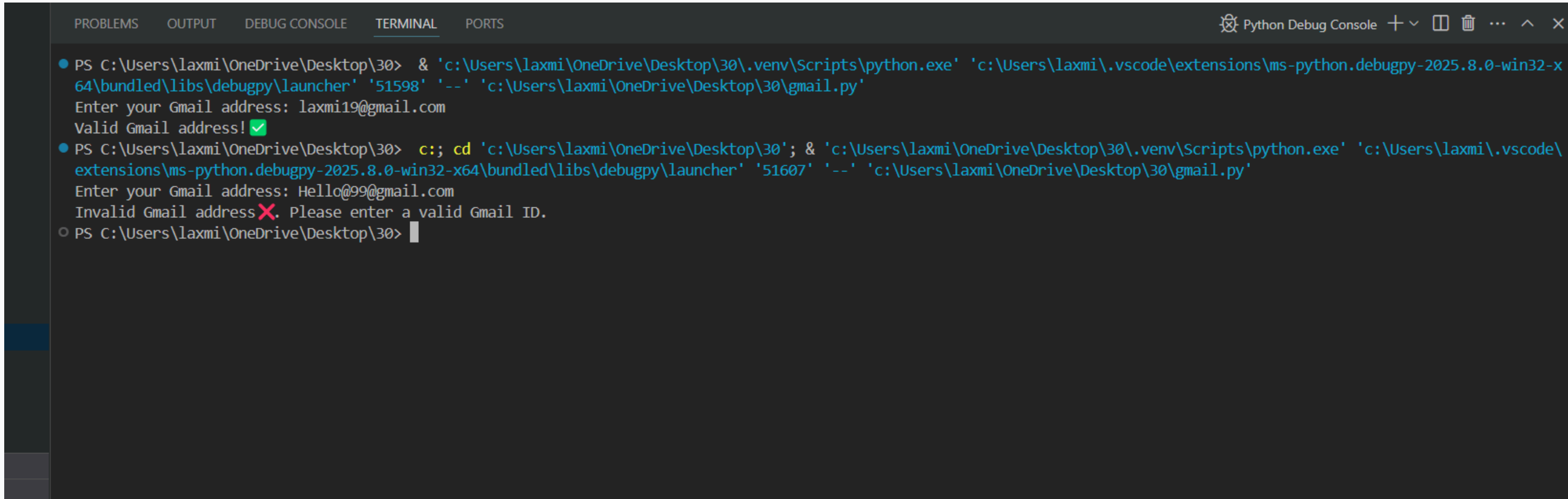
User Input

- The program takes an email address from the user via input().

Validation Output

- It prints ✅ if the input is a valid Gmail address, or ❌ if not.

Output Example

```
PS C:\Users\laxmi\OneDrive\Desktop\30>  & 'c:\Users\laxmi\OneDrive\Desktop\30\.venv\Scripts\python.exe' 'c:\Users\laxmi\.vscode\extensions\ms-python.debugpy-2025.8.0-win32-x
64\bundled\libs\debugpy\launcher' '51598' '--' 'c:\Users\laxmi\OneDrive\Desktop\30\gmail.py'
Enter your Gmail address: laxmi19@gmail.com
Valid Gmail address!✅
PS C:\Users\laxmi\OneDrive\Desktop\30>  c:; cd 'c:\Users\laxmi\OneDrive\Desktop\30'; & 'c:\Users\laxmi\OneDrive\Desktop\30\.venv\Scripts\python.exe' 'c:\Users\laxmi\.vscode\
extensions\ms-python.debugpy-2025.8.0-win32-x64\bundled\libs\debugpy\launcher' '51607' '--' 'c:\Users\laxmi\OneDrive\Desktop\30\gmail.py'
Enter your Gmail address: Hello@99@gmail.com
Invalid Gmail address❌. Please enter a valid Gmail ID.
PS C:\Users\laxmi\OneDrive\Desktop\30>
```

What I Learned Today

✓ Basics of regex and how patterns work
✓ How to validate Gmail addresses using Python
✓ Power of the re module for text automation