🔷 TASK 11: Regular Expressions for Data Validation

Tools:

- Python
- re module (built-in)
- VS Code / Jupyter
- Alternative: PyCharm Community

Hints / Mini Guide:

1. Create a Python file named regex_validation.py to centralize all validation logic.
2. Import the re module and understand pattern–string matching basics.
3. Write a regex pattern to validate email addresses following industry standards.
4. Create another pattern to validate Indian mobile numbers.
5. Add password validation logic using regex rules such as length, digits, and special characters.
6. Accept user input dynamically and validate it against patterns.
7. Display meaningful validation success or error messages.
8. Organize regex logic into reusable functions.
9. Test edge cases such as empty input, invalid formats, and partial matches.

Deliverables:

- Python script validating email, phone, and password

Final Outcome:

- Intern can perform input validation for real-world applications.

Interview Questions Related To Above Task:

- What are regular expressions?
- Difference between match, search, and findall?
- Why regex is preferred for validation?
- What are greedy and non-greedy patterns?
- Real-world use cases of regex?

📌 **Task Submission Guidelines**

- ⏰ **Time Window:**

Youcan complete the task anytime between 10:00 AM to 10:00 PM on the given day. Submission link closes at 10:00 PM

- 🔍 **Self-Research Allowed:**

Youare free to explore, Google, or refer to tutorials to understand concepts and complete the task effectively.

- 🛠️ **Debug Yourself:**

Tryto resolve all errors by yourself. This helps you learn problem-solving and ensures you don't face the same issues in future tasks.

- 💸 **No Paid Tools:**

Ifthe task involves any paid software/tools, do not purchase anything. Just learn the process or find free alternatives.

- 📁 **GitHub Submission:**

Create a new GitHub repository for each task.
Add everything you used for the task — code, datasets, screenshots (if any), and a short README.md explaining what you did.

📤 **Submit Here:**

After completing the task, paste your GitHub repo link and submit it using the link below:

- 👉 [Submission Link]