🐍 Python Scripting Notes – हिंदी में (with Examples)

1 Python की शुरुआत (Getting Started)

⬥ **Python क्या है?**

Python एक high-level, interpreted language है जो automation, web dev, scripting, AI सबमें use होती है।

⬥ **Python चलाने के तरीके:**

- IDLE (Python का inbuilt editor)
- VS Code / PyCharm
- Command Line: `python script.py`

2 Variables & Data Types

```python
name = "Tarun"        # String
age = 21              # Integer
price = 99.99         # Float
is_admin = True       # Boolean
```

3 Input और Output

```python
name = input("तुम्हारा नाम क्या है? ")
print("Hello,", name)
```

4 Conditional Statements (if-else)

```python
age = int(input("Age? "))
if age >= 18:
    print("Adult")
else:
    print("Minor")
```

5 Loops (for, while)

```python
# For loop
for i in range(5):
```

```python
    print("Hello", i)

# While loop
i = 0
while i < 5:
    print(i)
    i += 1
```

6 Functions (def keyword)

```python
def greet(name):
    print("Hi", name)

greet("Lucy")
```

7 Lists, Tuples, Dictionaries

```python
# List
fruits = ["apple", " "banana", "mango"]
print(fruits[0])

# Tuple (immutable)
colors = ("red", "green", "blue")

# Dictionary
person = {"name": "Tarun", "age": 21}
print(person["name"])
```

8 File Handling

```python
# Write to file
with open("data.txt", "w") as f:
    f.write("Hello file!")

# Read from file
with open("data.txt", "r") as f:
    print(f.read())
```

9 Error Handling (Try-Except)

```python
try:
    x = 10 / 0
except ZeroDivisionError:
    print("Zero से divide नहीं कर सकते!")
```

🔟 Modules और Libraries

```python
import math
print(math.sqrt(16))

import datetime
print(datetime.datetime.now())
```

🔁 Useful Libraries for Scripting

Library	Use
os	File & folder handling
sys	System commands
subprocess	Terminal commands run करना
time	Time delays
json	JSON handle करना
requests	HTTP requests भेजना

🤖 Automation Script Example:

```python
import os

def create_folders():
    for i in range(5):
        os.mkdir(f"Folder_{i}")
        print(f"Folder_{i} created")

create_folders()
```

🛠️ Bonus Tips

- .py फ़ाइल बना कर scripts सेव करो
- chmod +x script.py (Linux में executable बनाने के लिए)

- Shebang line: `#!/usr/bin/env python3`
- Scripts को schedule करने के लिए cronjob (Linux) या Task Scheduler (Windows) use करो

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