

# **My Personal Diary**

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**Selected Entries: 1**

# PYTHON

Date: 2025-04-12 | Mood: (pensive\_face)

Tags: Challenges

## ■ Introduction to Python

### What is Python?

**BOLDBLOCK0** is a **BOLDBLOCK1**, **BOLDBLOCK2**, and **BOLDBLOCK3** programming language.

It is known for its **BOLDBLOCK0**, **BOLDBLOCK1**, and wide range of **BOLDBLOCK2**.

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### ■ Why Learn Python?

- Easy to learn for beginners
- Used in web development, data science, AI, automation, and more
- Large community and library support
- Works on all platforms

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### ■ Basic Python Syntax

```
# Print to the console print("Hello, Python!")
```

```
# Variables name = "Ayesha" age = 25 is_student = True
```

```
# Conditional Statements if age > 18: print("Adult") else:  
print("Minor")
```

```
# Loops for i in range(5): print("Iteration", i)
```

```
# Functions def greet(name): return f"Hello, {name}!"  
print(greet("Ayesha"))
```

```
# Lists fruits = ["apple", "banana", "cherry"]
fruits.append("mango") print(fruits)
```

```
# Dictionaries student = { "name": "Ali", "age": 20, "grade": "A" }
print(student["name"])
```

```
# Exception Handling try: x = 10 / 0 except ZeroDivisionError:
print("You can't divide by zero!")
```

```
# Classes & Objects class Person: def __init__(self, name):
self.name = name def greet(self): print(f"Hello, my name is
{self.name}") p = Person("Hamza") p.greet()
```

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## ■ Applications of Python

| Domain | Examples |

|-----|-----|

| Web Development | Django, Flask |

| Data Science | Pandas, NumPy, Matplotlib |

| AI/ML | TensorFlow, PyTorch, Scikit-learn |

| Automation | Scripting, Web scraping, Task bots |

| Game Dev | Pygame |

| Desktop Apps | Tkinter, PyQt |

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## ■ Final Tip

Keep practicing small Python projects like:

- Calculator
- To-Do App
- Weather App
- Quiz App
- Chatbot
- Web scraper

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Happy Coding! ■■



Attached Image