

# Introduction to Python

Day 1 - Python Basics

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# Agenda

Python Online Free Ramzan Course 2025  
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1 What is Python?

2 Why learn Python?

3 Installing Python and setting up  
the environment

4 Writing your first Python program

5 Basic syntax and rules

6 Hands-on practice

# What is Python?

- **Definition:** Python is a high-level, easy-to-learn programming language.
- **Created by:** Guido van Rossum in 1991.
- **Uses:**
  - Web development
  - Data analysis
  - Artificial Intelligence
  - Automation
  - Game development
- **Why Python?**
  - Simple and readable syntax
  - Large community support
  - Cross-platform (works on Windows, macOS, Linux)

# Why Learn Python?

- **Beginner-friendly:** Easy to learn and understand.
- **Versatile:** Used in many fields (web, data, AI, etc.).
- **High demand:** Python developers are in high demand in the job market.
- **Fun:** You can build games, automate tasks, and more!

# Installing Python

- **Step 1:** Download Python from [python.org](https://python.org).
- **Step 2:** Run the installer and check "Add Python to PATH."
- **Step 3:** Verify installation:
  - Open Command Prompt (Windows) or Terminal (macOS/Linux).
  - Type `python --version` and press Enter.
  - You should see the installed Python version (e.g., Python 3.13.2).

# Setting Up the Environment

- **Python IDLE:** Comes with Python installation.
- **VS Code:** A popular code editor.
  - Install VS Code from [code.visualstudio.com](https://code.visualstudio.com).
  - Install the Python extension in VS Code.
- **Other options:** PyCharm, Jupyter Notebook, etc.

## Writing Your First Python Program

- Open Python IDLE or VS Code.
- Type the following code:

```
print("Hello, World!")
```
- Save the file with a .py extension (e.g., `hello.py`).
- Run the program:
  - In IDLE: Press F5 or go to Run > Run Module.
  - In VS Code: Right-click and select "Run Python File."
  - Terminal: Run "Python filename.py"

# Basic Syntax and Rules

- **Indentation:** Python uses indentation (spaces or tabs) to define code blocks.

```
if 5 > 2:  
    print("Five is greater than  
two!")
```

- **Comments:** Use # for single-line comments.

```
# This is a comment  
print("Hello, World!")  
Triple Quotes for multi-line comment
```

- **Case Sensitivity:** Python is case-sensitive (print is not the same as Print).



# Hands-On Practice

- **Task 1:** Write a program to print your name.

```
print("My name is [Your Name]")
```

- **Task 2:** Write a program to print a message in Pashto.

```
print("ستاسو نوم څه دی؟")
```

- **Task 3:** Write a program to print multiple lines.

```
print("Hello!")
```

```
print("Welcome to Python.")
```

# Recap

- What is Python?
- Why learn Python?
- How to install Python and set up the environment.
- Writing your first Python program.
- Basic syntax and rules.

# Homework

- **Install Python on your computer if you haven't already.**
- **Install VS Code**
- **Write a Python program to print your favorite quote.**
- **Explore Python IDLE or VS Code and get familiar with the interface.**

# Q&A

- Do you have any questions?
- Share your thoughts.

# Closing

**Next class: Variables and Data Types.**