

# Python 30 Days Course for Beginner

## Why Python?

- **Widely Used:** Popular in industry, used by major companies like Google and Netflix.
- **Versatile:** Ideal for web development, AI, data science, automation, and more.
- **User-Friendly:** Simple syntax and readability make it beginner-friendly.
- **Powerful Libraries:** Extensive libraries for various applications (e.g., TensorFlow, Django, Pandas).
- **Strong Community:** Large, active community with abundant resources and support.

## Syllabus

### Week 1: Introduction to Python

- **Topics:**
  - Overview of Python and its applications
  - Setting up the Python environment (installation and IDEs)
  - Basic syntax and data types (integers, floats, strings, booleans)
- **Learning Objectives:**
  - Understand Python's role in programming
  - Install Python and set up the development environment
  - Write simple Python programs

### Week 2: Control Structures

- **Topics:**
  - Conditional statements (if, elif, else)
  - Loops (for, while)
  - Loop control statements (break, continue, pass)
- **Learning Objectives:**
  - Implement control flow in Python programs
  - Use loops to iterate over data structures

### Week 3: Functions and Modules

- **Topics:**
  - Defining and calling functions
  - Function arguments and return values
  - Importing and using modules

- **Learning Objectives:**
  - Create reusable code with functions
  - Organize code using modules

## **Week 4: Data Structures**

- **Topics:**
  - Lists, tuples, sets, and dictionaries
  - List comprehensions
  - Working with built-in functions for data structures
- **Learning Objectives:**
  - Choose appropriate data structures for different tasks
  - Manipulate and iterate through data collections

## **Notes**

The notes are completely based on Programiz, which has perfect notes for beginners. All the code we write and the notes will be uploaded to GitHub daily.

## **Conclusion**

This syllabus provides a roadmap for mastering Python programming through structured learning and practical application. Note that this course is completely free and designed for beginners. We will delve deeply into the material, discussing and implementing everything we learn. From here, you can start your journey as a developer.