

Python Basic 1 (Level 1)

Session 1: Introduction to Python

1. Overview of Programming Concepts:

- Introduction to programming and its importance.

2. What is Python?

- Explanation of Python and its uses.

3. Installing Python:

- Step-by-step guide to installing Python on different operating systems.

4. Writing Your First Python Program:

- Introduction to Python syntax.
- Writing and running the first program: `print("My first python code")`.

5. Variables:

- Definition of variables.
- Variable assignment and usage.
- Variable naming rules.

Session 2: Python Basics Part 1

1. Data Types:

- Overview of basic data types: integer, float, string, boolean.

2. Data Casting:

- Converting data types using `float()`, `str()`, and `int()`.

3. User Input:

- Taking input from the user using `input()` function.

Session 3: Python Basics Part 2

1. Basic Operators:

- Definition and types of operators.

2. Arithmetic Operators:

- Using `+`, `-`, `*`, `/`, `//`, `%`, and `**`.

3. Comparison Operators:

- Using `==`, `!=`, `>=`, `<=`, `<`, and `>`.

4. Logical Operators:

- Using `and`, `or`, and `not`.

Session 4: Control Flow Part 1

1. Conditional Statements:

- Definition and purpose of conditional statements.

2. If Statement:

- Using if to make decisions in code.

3. If-Else Statement:

- Adding an else clause for alternative actions.

4. If-Elif-Else Statement:

- Handling multiple conditions with elif.

Session 5: Control Flow Part 2

1. Loops:

- Definition and types of loops.

2. For Loop:

- Iterating over sequences with for.

3. Range Function:

- Using range() to generate sequences of numbers.

Session 6: Control Flow Part 3

1. While Loop:

- Repeating actions with while.

2. Control Flow Statements:

- Using break and continue to control loop execution.

3. Final Project:

- Applying learned concepts to create a comprehensive project.