Recipro Skills

Python Beginner - Syllabus

1. **Introduction to Python**
   - What is Python?
   - Installing Python and Setting Up Environment
   - Writing and Running Python Scripts
   - Basic Syntax and Structure
2. **Variables and Data Types**
   - Variables and Assignment
   - Numeric Data Types (int, float, complex)
   - String Data Type and String Manipulation
   - Boolean Data Type
   - Type Conversion
3. **Operators in Python**
   - Arithmetic Operators (+, -, *, /, %, //, **)
   - Comparison Operators (==, !=, >, <, >=, <=)
   - Logical Operators (and, or, not)
   - Assignment Operators
   - Identity and Membership Operators
4. **Control Flow - Conditional Statements**
   - `if`, `if-else`, `if-elif-else` Statements
   - Nested `if` Statements
5. **Loops in Python**
   - `for` Loop
   - `while` Loop
   - Loop Control Statements (`break`, `continue`, `pass`)

6. **Functions in Python**
    - Defining and Calling Functions
    - Function Arguments (Positional, Keyword, Default)
    - Return Statement
    - Lambda Functions
7. **Lists and Tuples**
    - Introduction to Lists
    - List Methods and Operations
    - Introduction to Tuples
    - Tuple Methods and Properties

8. **Dictionaries and Sets**
    - Dictionary Keys and Values
    - Dictionary Methods
    - Introduction to Sets
    - Set Operations (Union, Intersection, Difference)
9. **String Handling**
    - String Indexing and Slicing
    - String Methods (`lower()`, `upper()`, `replace()`, `split()`, `join()`, etc.)
    - String Formatting (`f-strings`, `format()`)
10. **File Handling in Python**
- Reading from a File (`open()`, `read()`, `readline()`)
- Writing to a File
- Working with Different File Modes (`r`, `w`, `a`, `r+`)
11. **Exception Handling**
- Understanding Errors and Exceptions
- Using `try-except` Blocks
- Handling Multiple Exceptions
- Using `finally` Block

*We suggest you to Follow this Syllabus - Recipro Skills