

Python Programming

Session 1: Beginning with Python

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| ✓ Installing Python, Introduction to Python | ✓ Data Types, Variables, Operators |
| ✓ Basic Syntax of Python Programming | ✓ Input/output, Your First Python Program |

Session 2: Control Statements and Looping

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| ✓ Flow of Control (Modules, Branching) | ✓ Nested Loops in Python, Control Structure |
| ✓ If, If-else, Nested of if-else | ✓ For and While Loop |
| ✓ Introduction to Looping in Python | ✓ Uses of Break and Continue |

Session 3: Working with Strings

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| ✓ Pass, Strings and Tuples, Accessing Strings | ✓ Basic Operations, Formatting Strings |
| ✓ Accessing Multiple Values at Once | ✓ String slices |

Session 4: Working with Dictionaries

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| ✓ Introduction to Dictionaries | ✓ Defining and Modifying Dictionaries |
| ✓ Introducing Dictionaries | ✓ Deleting Items from Dictionaries |

Session 5: Working with Lists

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| ✓ Working with Lists, Introducing Lists | ✓ Adding Elements to Lists, Searching Lists |
| ✓ Defining Lists, Declare, assign and retrieve values from the Lists | ✓ Deleting List Elements, Using List Operators |
| ✓ Accessing Lists, Operation in Lists | ✓ Mapping List, Joining Lists and Splitting Strings
Historical Note on String Methods |

Session 6: Working with Function

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| ✓ Function and Methods | ✓ Anonymous Func., Global and local variables |
| ✓ Defining a function, Calling a function | ✓ Using Optional and Named Arguments |
| ✓ Types of function, Function Arguments | ✓ Using type, str, dir, and Other Built-In Functions |

Session 7: Working with Tuples

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| ✓ Introducing Tuples, Accessing Tuples | ✓ Operations with Tuples |
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Session 8: Python with OOPS

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| ✓ Object Oriented Python, OOPs Concept | ✓ Object References, Class and Object |
| ✓ Object, Indenting Code, Native Data Types | ✓ Attributes, Inheritance, Overloading |
| ✓ Declaring Variables, Referencing Variables | ✓ Overriding, Data Hiding, Regular Expression |

Session 9: Exception Handling

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| ✓ Operations Exception | ✓ Try finally clause |
| ✓ Exception Handling, Except clause | ✓ User Defined Exceptions |

Session 10: Introduction to Tkinter

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| ✓ Working with Python GUI | ✓ Introduction to Tkinter Widgets |
| ✓ Working with Tkinter Events | ✓ Designing Tkinter Forms |
| ✓ Tkinter Widgets Attributes | ✓ Tkinter Menu, Combobox etc. |

Session 11: Working with Databases

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| ✓ Introduction to MySQL, SQL Introduction | ✓ Working with pymysql |
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