

PYTHON for FAST LEARNERS

1	WHY SHOULD YOU LEARN TO WRITE PROGRAMS
1.1	Creativity and Motivation
1.2	Python Editors and Installing Python
1.3	What is a Program?
1.4	The Building Blocks of Programs
1.5	Variables, Expressions and Statements
1.6	Operators and Operands
1.7	Expressions
1.8	Order of Operations
1.9	Words and Sentences (Keywords in Python)
1.10	String Operations
1.11	Asking the User for Input
1.12	Debugging
1.13	What Could Possibly Go Wrong?
1.14	Comments
1.15	Type Conversion Functions
1.16	Logical Operators
1.17	Conditional Execution
1.18	Alternative Execution
1.19	Chained Conditionals
1.20	Nested Conditionals
2	ITERATION
2.1	The while Statement
2.2	Definite Loops using for
2.3	Loop Patterns
2.4	Infinite Loops, break and continue
2.5	STRINGS
2.6	Reading and initializing strings
2.7	Getting Length of a String using len()
2.8	Traversal through String with a Loop
2.9	String Slices
2.10	Strings are Immutable(cannot be modified)
2.12	Looping and Counting
2.13	The in Operator
2.14	String Comparison
2.15	String Methods
3	LISTS
3.1	Initializing and accessing lists
3.2	Lists are Mutable(Modifying list)
3.3	Traversing a List
3.4	List Operations

3.5	List Slices
3.6	List Methods
3.7	Deleting List Elements
3.8	Lists and Functions
3.9	Lists and Strings
3.10	DICTIONARIES
3.11	Dictionary as a Set of Counters
3.12	Looping and Dictionaries Dictionaries and Files
3.13	TUPLES
3.14	Comparing Tuples
3.15	Tuple Assignment
3.16	Dictionaries and Tuples
3.17	Loop through a Tuple
3.18	Multiple Assignment with Dictionaries
3.19	Using Tuples as Keys in Dictionaries
3.20	Summary on Sequences: Strings, Lists and Tuples
4	FUNCTIONS
4.1	Function Calls
4.2	Built-in Functions
4.3	Random Numbers
4.4	Math Functions
4.5	Motivation for writing user defined function
4.6	Adding New Functions
4.7	Parameters and Arguments
4.8	Fruitful Functions and void Functions
4.9	Classes and Objects
4.10	Programmer-defined Types
4.11	Attributes
4.12	Classes and Funtions
4.13	Classes and Methods
4.14	General OOP Concepts
4.15	Properties of Objects
5	FILES
5.1	Why Files? (Persistence)
5.2	Creating Files
5.3	Opening Files
5.4	Reading Files
5.5	Writing Files
5.6	Searching through a File
5.7	Letting the User Choose the File Name
5.8	Using try, except to Open a File
5.9	Parsing Lines (using lists)
5.10	Aliasing
	Exercise Questions!!

<i><u>For Curious Minds:</u></i>
<ul style="list-style-type: none">• Formatting the output
<ul style="list-style-type: none">• Special parameters of print() – sep and end :
<ul style="list-style-type: none">• Short-Circuit Evaluation of Logical Expressions
<ul style="list-style-type: none">• Catching Exceptions using try and except