Python (30 Hours)

Topic	Subtopic
Introduction	
Input/Output Operators	Python Operators
	Ternary Operator in Python
	Division Operators in Python
	Operator Overloading in Python
	Any All in Python
	Operator Functions in Python | Set 1
	Operator Functions in Python | Set 2
	Difference between == and is operator in Python
	Python Membership and Identity Operators | in, not in, is, is not
Data Types	Strings, Lists, Tuples, Iterations)
	Python String
	Python Lists
	Python Tuples
	Python Sets
	Python Dictionary
	Python Arrays
Control Flow	Python if else
	Chaining comparison operators in Python
	Python For Loops
	Python While Loops
	Python break statement
	Python Continue Statement
	Python pass Statement
	Looping Techniques in Python
Functions	Functions in Python
	*args and **kwargs in Python
	When to use yield instead of return in Python?
	Generators in Python
	Python lambda
	Global and Local Variables in Python
	Global keyword in Python
	First Class functions in Python
	Python Closures
	Decorators in Python
	Decorators with parameters in Python
	Memorization using decorators in Python
Python OOP	Python Classes and Objects
	Constructors in Python

	Destructors in Python
	Inheritance in Python
	Types of inheritance Python
	Encapsulation in Python
	Polymorphism in Python
	Class or Static Variables in Python
	class method vs static method in Python
	Metaprogramming with Metaclasses in Python
Exception Handling	Python Exception Handling
	Python Try Except
	Errors and Exceptions in Python
	Built-in Exceptions in Python
	User-defined Exceptions in Python with Examples
	NZEC error in Python
File handling	File Handling in Python
	Open a File in Python
	How to read from a file in Python
	Writing to file in Python
Regex	Regular Expression in Python with Examples | Set 1
	Regular Expressions in Python – Set 2 (Search, Match and Find All)
	Python Regex: re.search() VS re.findall()
	Verbose in Python Regex
	Password validation in Python
Collections	Counters in Python | Set 1 (Initialization and Updation)
	OrderedDict in Python
	Defaultdict in Python
	ChainMap in Python
	Namedtuple in Python
	Deque in Python
	Heap queue (or heapq) in Python
	Collections.UserDict in Python
	Collections.UserList in Python
	Collections.UserString in Python
numPy	Python Numpy
	Numpy | ndarray
	Numpy | Array Creation
	Numpy | Indexing
	Basic Slicing and Advanced Indexing in NumPy Python
	Numpy | Data Type Objects
	Numpy | Iterating Over Array
	Numpy | Binary Operations
	Numpy | Mathematical Function
	Numpy | String Operations
	Numpy | Linear Algebra

	Numpy | Sorting, Searching and Counting
	Random sampling in numpy | randint() function
	Random sampling in numpy | random_sample() function
	Random sampling in numpy | ranf() function
	Random sampling in numpy | random integers() function
	Numpy ufunc | Universal functions
Pandas	Introduction to Pandas in Python
	How to Install Python Pandas on Windows and Linux?
	Python | Pandas DataFrame
	Creating a Pandas DataFrame
	Python | Pandas Series
	Creating a Pandas Series
	Python | Pandas Dataframe/Series.head() method
	Python | Pandas Dataframe.describe() method
	Dealing with Rows and Columns in Pandas DataFrame
	Python | Pandas Extracting rows using .loc[]
	Python | Extracting rows using Pandas .iloc[]
	Indexing and Selecting Data with Pandas
	Boolean Indexing in Pandas
	Pandas GroupBy
	Python | Pandas Merging, Joining, and Concatenating
	Python | Working with date and time using Pandas
	Python | Pandas Working With Text Data
	Python | Read csv using pandas.read_csv()
	Python | Working with Pandas and XlsxWriter | Set – 1