Python – Day wise syllabus

Duration: 60 hours

S.no	Topics
1	**Introduction to Python**
2	Why Python?
3	Python Feature
4	Python Software Installation
5	Python Program Syntax
6	**Python Basics**
7	The print statement
8	Comments in python
9	Python Data Structures & Data Types
10	String Operations in Python
11	Simple Input & Output
12	Operators in python
13	**Python Control Flow Statement**
14	If statement
15	If-else statement
16	Elif - else if
17	Nested if statement
18	The while loop
19	The for loop
21	Break &Continue statement

22	Pass statement
23	**Functions in Python**
24	Create your own functions
25	Functions Parameters& Variable Arguments
26	Function Argument Types(Default,Keyword,Arbitrary)
27	Functions-Recursion
28	Lambda Functions
29	Filtering & mapping
30	**Modules & Package in Python**
31	Modules
32	Packages
33	User program as modules and Packages
34	**Data Structure in Python**
35	List
36	Tuple
37	Set
3	Dictionary
39	Stack
40	Queue
41	**Errors & Exceptions Handling**
42	Errors
43	Exception handling - Assert, Try, except, Finally

44	**File Handling**
45	File handling Modes
46	Reading Files
47	Writing& Appending to Files
4	Create New File
49	Delete a File
50	Handling File Exceptions
51	**Object Oriented Programming In Python**
52	Creating Classes
53	Instance Methods
54	Inheritance & it's types
55	Polymorphism
56	Abstract
57	Encapsulation
58	**Reference Types**
59	Iterators
60	Generators
61	Closure
62	Decorators
63	**GUI in Python (Tkinter)**
64	Introduction to GUI
65	Tkinter Components and Events

66	The root Component
67	Adding a Button
68	Entry Widgets
69	Text Widgets
70	Check buttons, Radio buttons, Combo-box, Message-box & Label
71	Add Image in GUI
72	GUI - Speech Recognition
73	GUI - Generate QR-code
74	GUI - Bank Application
75	GUI - Live Running Train Status
76	**Python MYSQL Database**
77	Introduction to Database
78	Configuration steps
79	Creating DB Table
80	INSERT Data & READ Data from DB
81	UPDATE Data & DELETE Data
82	**Python Graphics**
83	Turtle Introduction
84	Draw Various Shapes
85	Turtle Animation
86	Real time Graphics
87	**Network Programming**

88	Socket Programming
89	Clients and Servers
90	Multiple Client & Server
91	**Threads & Multi-threading**
92	Threading methods
93	Synchronization of thread
94	**Python CGI (Common Gateway Interface) Programming**
95	Basic Games in Python
96	Python Standard Libraries Introduction
97	Numpy
98	Scipy
99	Pandas
100	Matplotlib
101	Pygame
102	PyQT
103	Bs4
104	**Real Time Project**