

**Back End Developer :- Python, Django**

<b><u>Introduction to Python</u></b>	<p>What can Python do?          Why Python?          Good to know          Python Syntax compared to other programming languages          Python Install</p>
<b><u>Beginning Python Basics</u></b>	<p>The print statement, Comments          Python Data Structures &amp; Data Types          String Operations in Python          Simple Input &amp; Output          Simple Output Formatting          Operators in python</p>
<b><u>Python Program Flow</u></b>	<p>Indentation          The If statement and its' related statement          An example with if and it's related statement          The while loop, The for loop          The range statement          Break &amp;Continue          Assert          Examples for looping</p>
<b><u>Functions&amp; Modules</u></b>	<p>Create your own functions          Functions Parameters          Variable Arguments          Scope of a Function          Function Documentations          Lambda Functions&amp; map          n Exercise with functions          Create a Module          Standard Modules</p>
<b><u>Exceptions Handling</u></b>	<p>Errors          Exception handling with try          handling Multiple Exceptions          Writing your own Exception</p>
<b><u>File Handling</u></b>	<p>File handling Modes          Reading Files          Writing&amp; Appending to Files          Handling File Exceptions          The with statement</p>

<b><u>Classes In Python</u></b>	New Style Classes Creating Classes Instance Methods Inheritance Polymorphism Exception Classes & Custom Exceptions
<b><u>Generators and iterators</u></b>	Iterators Generators The Functions any and all With Statement Data Compression
<b><u>Data Structures</u></b>	List Comprehensions Nested List Comprehensions Dictionary Comprehensions Functions Default Parameters Variable Arguments Specialized Sorts
<b><u>Collections</u></b>	namedtuple() deque ChainMap Counter OrderedDict defaultdict UserDict UserList UserString
<b><u>Writing GUIs in Python (Tkinter)</u></b>	Introduction Components and Events An Example GUI The root Component Adding a Button Entry Widgets Text Widgets Check buttons
<b><u>Python SQL Database Access</u></b>	Introduction,Installation DB Connection Creating DB Table INSERT, READ, UPDATE, DELETE operations COMMIT & ROLLBACK operation handling Errors

<b><u>Network Programming</u></b>	Introduction A Daytime Server Clients and Servers The Client Program The Server Program
<b><u>Date and Time</u></b>	sleep Program execution time more methods on date/time
<b><u>Few more topics in-detailed</u></b>	Filter, Map, Reduce Decorators Frozen set Collections
<b><u>Regular Expression</u></b>	Split Working with special characters, date, emails Quantifiers Match and find all character sequence and substitute Search method
<b><u>Threads ESSENTIAL</u></b>	Class and threads Multi-threading Synchronization Treads Life cycle use cases
<b><u>Accessing API ESSENTIAL</u></b>	Introduction Facebook Messenger Openweather
<b><u>DJANGO</u></b>	Django Overview Django Installation Creating a Project Usage of Project in depth Discussion Creating an Application Understanding Folder Structure Creating a Hello World Page Database and Views Static Files and Forms API and Security