

Python Course curriculum		
Session	Objective	Details
Day 1	Introduction to Python	<ul style="list-style-type: none"> <li>History of Python</li> <li>Why to learn python</li> <li>How is Python Different?</li> <li>Variable</li> <li>Keywords</li> <li>Statements &amp; Comments</li> </ul>
Day 2	Operators	<ul style="list-style-type: none"> <li>Data Types</li> <li>Arithmetic operator</li> <li>Relational Operator</li> <li>Assignment Operator</li> <li>Logical operator</li> <li>Bitwise operator</li> <li>Membership Operator</li> <li>Identity Operator</li> </ul>
Day 3	Assignment	On above topic
Day 4 & 5	String	<ul style="list-style-type: none"> <li>Defining a string</li> <li>Accessing elements of the string</li> <li>String methods</li> <li>Type-Casting</li> <li>Input and output</li> <li>String formatting</li> <li>Print function</li> </ul>
Day 6 & 7	List	<ul style="list-style-type: none"> <li>Defining a list</li> <li>Creating list</li> <li>Accessing list elements of list</li> <li>List methods</li> <li>Functions used with list</li> <li>Sorting list</li> </ul>

Day 8	Assignment	<ul style="list-style-type: none"> <li>On above topic</li> </ul>
Day 9	Tuple	<ul style="list-style-type: none"> <li>Defining a tuple</li> <li>Creating a tuple</li> <li>Accessing elements of the tuple</li> <li>What is Immutability</li> <li>List vs tuples</li> <li></li> </ul>
Day 10	Set	<ul style="list-style-type: none"> <li>Defining a set</li> <li>Creating set</li> <li>Set operations</li> <li>Set methods</li> </ul>
Day 11	Dictionary	<ul style="list-style-type: none"> <li>Defining a dictionary</li> <li>Creating a dictionary</li> <li>Accessing elements of the dictionary</li> <li>Dictionary methods</li> </ul>
Day 12 & 13	If-elif-else	<ul style="list-style-type: none"> <li>If statement</li> <li>If - else</li> <li>If – elif -else</li> </ul>
Day 14 & 15	While Loops	<ul style="list-style-type: none"> <li>while loop</li> <li>questions</li> </ul>
Day 16,17,18	For Loop	<ul style="list-style-type: none"> <li>for loop</li> <li>Pass, Break and continue</li> <li>Patterns</li> <li>List comprehension</li> <li>Dictionary comprehension</li> </ul>

Day 19,20,21	Functions	<ul style="list-style-type: none"> <li>• Basics Defining function</li> <li>• User define functions</li> <li>• function call Return statement</li> <li>• Function with parameter and without parameter</li> <li>• local and global variable</li> <li>• lambda function : map, filter , reduce</li> <li>• Recursion</li> <li>• Examples</li> </ul>
Day 21,22,23,24	OOP	<ul style="list-style-type: none"> <li>• Class</li> <li>• Object</li> <li>• Encapsulation</li> <li>• Inheritance</li> <li>• Polymorphism</li> <li>• Abstraction</li> <li>• Project</li> </ul>
Day 25	File Handling	<ul style="list-style-type: none"> <li>• open()</li> <li>• r mode, w mode, a mode</li> <li>• with statement</li> </ul>
Day 26	Exceptional Handling	<ul style="list-style-type: none"> <li>• Defining an exception?</li> <li>• Detecting Exception (try)</li> <li>• Catching exceptions (except)</li> <li>• Catching multiple exceptions</li> <li>• Finally block</li> <li>• &amp; Doubts</li> </ul>
Day 27,28	Numpy	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• List vs Array</li> <li>• Some methods</li> </ul>
Day 29,30,31	Pandas	<ul style="list-style-type: none"> <li>• Series</li> <li>• DataFrame</li> <li>• Groupby</li> <li>• Merging</li> </ul>
Day 31,32	Matplotlib	All visualization plots
Day 33,34	Seaborn	All visualization plots
Day 35,36	EDA	Data Cleaning Case study
Day 37	Database connectivity	Connection of Python With MySQL workbench

SQL Course curriculum		
Session	Objective	Details
Day 1	Introduction to Database	<ul style="list-style-type: none"> <li>• What is Data?</li> <li>• What is database?</li> <li>• Properties</li> <li>• DBMS,RDBMS ?</li> <li>• Real life Examples</li> </ul>
Day 2	Introduction to SQL	<ul style="list-style-type: none"> <li>• What is SQL &amp; Why SQL ?</li> <li>• Installation MySQL Workbench</li> <li>• Different types of commands</li> <li>• Explanation on DDL, DML,DCL, TCL</li> </ul>
Day 3	DDL	<ul style="list-style-type: none"> <li>• Create Database,table</li> <li>• Drop database,Table</li> <li>• Data Types</li> </ul>
Day 4	DDL	<ul style="list-style-type: none"> <li>• Constraints</li> <li>• Truncate Table</li> <li>• Alter Table</li> </ul> <p>Normalization</p>

Day 5	DML	<ul style="list-style-type: none"> <li>• Insert</li> <li>• Select query</li> <li>• Distinct</li> <li>• Where Clause</li> </ul>
Day 6	DML	<ul style="list-style-type: none"> <li>• Update</li> <li>• Delete</li> <li>• Functions</li> <li>• Operator</li> </ul>
Day 7	DML	<ul style="list-style-type: none"> <li>• Operator</li> <li>• Order By</li> <li>• Group By</li> <li>• Having Clause</li> </ul>
Day 8	DML	<ul style="list-style-type: none"> <li>• Group By</li> <li>• Having Clause</li> <li>• Questions on above topics</li> </ul>
Day 9	Doubt session	<ul style="list-style-type: none"> <li>• Ask some questions on above topics</li> <li>• Solve more questions</li> </ul>
Day 10	Joins	<ul style="list-style-type: none"> <li>• Joins(Inner, left, right &amp; outer)</li> <li>• Set Operators (Union &amp; Intersection)</li> </ul>
Day 11	Joins, Subquery	<ul style="list-style-type: none"> <li>• Some examples on Joins</li> <li>• What is Subquery?</li> <li>• Inner query, outer query</li> <li>• examples</li> </ul>

Day 12	Subquery	<ul style="list-style-type: none"> <li>• More examples on Subquery</li> </ul>
Day 13	Views, CTE	<ul style="list-style-type: none"> <li>• What are Views?</li> <li>• Uses of views</li> <li>• Create views</li> <li>• What is CTE</li> <li>• example</li> </ul>
Day 14	User defined function	<ul style="list-style-type: none"> <li>• What is function?</li> <li>• User Defined function</li> <li>• Creating some functions</li> </ul>
Day 15	Stored Procedure	<ul style="list-style-type: none"> <li>• What is stored procedure?</li> <li>• Create some stored procedure</li> </ul>
Day 16	Trigger	<ul style="list-style-type: none"> <li>• What is trigger</li> <li>• Before , After (insert,update,delete)</li> <li>• Difference between trigger and Stored procedure</li> </ul>
Day 17	DCL	<ul style="list-style-type: none"> <li>• What is DCL</li> <li>• Why DCL imp</li> <li>• Grant</li> <li>• Revoke</li> <li>• Advantage and disadvantage</li> </ul>
Day 18	TCL	<ul style="list-style-type: none"> <li>• What is transaction</li> <li>• Commit</li> <li>• Rollback</li> <li>• Save-point</li> <li>• ACID properties</li> </ul>

Day 19	Doubt Session	<ul style="list-style-type: none"><li>• Ask some questions on above topics</li><li>• Solve more questions</li></ul>
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