Python Course Content

1) Introduction to Python and Basics
    a) Variables and why variables ?
    b) Data types - Primitive
    c) Comments
    d) Operators,
        i. Arithmetic Operator
        ii. Comparison Operator
        iii. Logical Operator
        iv. Assignment Operator
        v. Membership Operator
        vi. Identity Operator
        vii. Bitwise Operator
    e) Type Casting
    f) Input Functions
    g) Ways of Printing
    h) ord() and Chr() -> ASCII Concept

2) Conditional Statements and it's Applications,
    a) Only IF Condition
    b) IF - Else Condition
    c) ELIF Ladder
    d) Nested Conditional Statements
    e) Multiple Conditional Statements

3) Loops,
    a) While Loop
    b) For Loop
        i. With Range
        ii. Without Range

4) Non - Primitive Data types
    a) String and String Inbuilt Functions
    b) List and List Inbuilt Functions
    c) Tuples and Tuples Inbuilt Functions
    d) Set and Set Inbuilt Functions
    e) Dictionary and Dictionary Inbuilt Functions

5) File Handling
    a) Playing .csv file
    b) Playing with .txt file

6) Handling Json Data
    a) Reading Json Data
    b) Traversing through Json Data
    c) Saving Json Data

7) Functions
    a) Function Creation and Usage
    b) Types of Functions
    c) Types of functions arguments
    d) Nested Function

8) Introduction to Classes and Objects,
    a) why Classes ? and Class and Object creation.
    b) OOPS Concept
        i. Inheritance and Types of Inheritance
        ii. Abstract Classes
        iii. Polymorphism and why Polymerphism ?
        iv. Access Specifier ->
            1. Public and Private
        v. Static, Instance and Class Method
    c) Magic Functions

9) Exception Handling,
    a) Try, Except and Finally
    b) Raise and Assert

10) Regular Expressions
    a) Findall()
    b) Split()
    c) Sub()

11) Modules
    a) Predefined Modules
    b) Make your python Files as Inbuilt Module

12) Multi-Threading

13) Special Concepts
    a) Lambda Functions
    b) Zip()
    c) Map()
    d) Reduce()
    e) Filter()
    f) Args(*) and Kwargs(**)
    g) Decorators and Why Decorators ?
    h) Iterators
    i) Generators and Why generators ?

14) 1 Mini Project(Python + DBMS/SQL)