**PYTHON TOPICS TO BE COVERED:**

1. **BASIC**
2. Variables and all data types (declaring variables with different data types, assigning values, multiple assignment, concatenation of two variables with same/diff datatypes etc.. (optional))
3. All the different types of operators used in python. Sample codes which make use of the operators. (arithmetic,bitwise,logical,identity etc). Also see how to use operators with lists, strings etc.
4. Condition checking in python.Sample codes making use of condition checks (if..else, nested if-else etc.).
5. All the different types of loops. The basic loops (for,while), nested loops, as well as loops implemented using condition checks. (Implement simple codes that use the different types of loops) Also includes the control statements used in loops (break, pass etc).
6. Lists. Everything about lists. How to declare and define them. How to assign values to them. How to access the lists. All sorts of list manipulations. (including slicing and list comprehension)
7. Strings. How to define strings, how to access the strings, how to format a string, how to split a string and use a string with basic operators, etc. All the basic strings operations.
8. Tuples. Accessing values in tuples, deleting elements of tuples, converting tuples to list and vice-versa and other basic tuples operations.
9. Dictionaries: Defining and accessing a dictionary, the use of keywords in dictionaries, deleting certain elements in dictionaries etc.
10. Functions: how to define a function, how to call a function, passing values to and receiving values from a function, all types of function arguments etc. Also see the scope of local and global variables inside a function and between two functions, the use of “lambda” keyword, **and learn about ALL the built-in functions python has to offer for the above mentioned topics.**
11. Classes and Objects: how to define a class, defining a function inside a class, creating an object of a class and accessing the methods/variables defined inside the class as objects etc.
12. Modules: importing a particular file OR a module from another file into a python script, writing a module to be used in another python script etc. Explore about all the built-in modules (as well as functions) and packages in python.
13. Exception Handling: explore about try...except blocks, how to use them to handle certain kind of errors.
14. File operations: opening and closing a file, reading a file, printing a msg to the screen, reading an input from the keyboard etc.
15. **ADVANCED**
16. Generators (how are they defined, how are they made to return back values)
17. Regular Expressions (match function, search function, search and replace etc).