

Tools we are going to use in these Sessions:

1. Python IDLE

Link : <https://www.python.org/downloads/>

2. Jupyter Notebook

Link : <https://www.anaconda.com/products/individual>

Topics to be Covered :

1. Introduction to Python
2. Introduction to Anaconda
3. Jupyter Notebook and Markdown concepts
4. Python Numbers
 - Int
 - Float
 - Complex
5. Input/Output Statements
 - print()
 - input()
6. Variables
7. Operators
 - Arithmetic
 - comparison(relational)
 - Assignment
 - Logical
 - Bitwise
 - Membership
 - Identity
 - Conditional /Ternary operator.
8. Expressions
9. Statements
10. Strings,String Operations
11. Conditional statements
 - If
 - If-else
 - elif
12. Looping statements
 - While
 - for
13. Functions
 - User defined Functions

- Parameters to Functions
- Recursive Functions
- Nested Functions
- Types of Arguments
 1. Required-Positional Arguments
 2. Default Arguments
 3. Keyword Arguments
 4. Variable-length Arguments

14. Data Structures:

1. List
2. Tuple
3. set
4. Dictionaries

15. File Handling

16. Functional Programming: Functional programming concepts in python such as

- List Comprehensions
- Map
- Reduce
- Filter
- Anonymous Functions (Lambda)

17. Standard Libraries:

Standard libraries

- math
- os
- random

18. Beautiful Idiomatic approach to solve Programming problems

19. Exception handling

20. Working with 3rd party libraries