# SESSION 1

Why code? What is Programming

Tools for Programing

Why Python?

Introduction to Jupyter Notebook

Print Function and Basic Calculations with Arithmetic Operators

Input and output

Variables

Handling with error messages

# SESSION 2

Data types of variables and Transforming

Numeric variables(Integer,Float, Complex)

Boolean variables(True, False)

Strings

Format method vs F-String

Lists with methods and functions

Tuples

Sets with methods

Indexing and Slicing

Dictionaries with methods

# SESSION 3

Input Function

Logical operators

Conditionals

If, else and elif statements

Range function

For Loops

While Loops

Infinite Loops

# SESSION 4

Nested if statements

Nested loops

Creating a Function

How to use Return

Memory usage and Optimization

Simple Bubble Sort

# SESSION 5

Anonymous :Lambda Functions

List Comprehension

Dictionary Comprehension

Classes

Methods

Objects

Inheritance

Polymorphism

Encapsulation

Files IO

# Session 6

Zip

Enumerate

Itertools

# SESSION 7

Type Conversion and Type Casting

NumPy - Numerical Python

Numpy Arrays and Operations

Numpy Arrays vs Lists

Playing with Numpy Arrays

# SESSION 8

Generating a Non-Random Sequence of Numbers

Generating a Random Sequence of Numbers

and known distributions

Statistics with Numpy

NumPy Sort, Search and Count Functions

Array Broadcasting

# SESSION 9

Pandas. Data Structues

Pandas Series

Pandas DataFrames

Pandas Indexing and Conditional Selection

Difference between loc and iloc

Analyzing tabular data with Pandas

Modifying DataFrames

SESSION 10

SESSION 11

SESSION 12

SESSION 13

SESSION 14

SESSION 15

SESSION 16

SESSION 17

1. Statistics
2. Pandas Conditional Selection and Modifying DataFrames
3. Pandas,Reading CSV,Excel, HTML,Text, JSON,PICKLE files With Various Parameters
4. Read and write excel files
5. Data Preprocessing
6. Data Cleaning with DataFrames
7. Handle Missing Data: fillna, dropna, interpolate,replace function
8. Handle Duplicate Data
9. Group By (Split Apply Combine)
10. Categorizing Data
11. Systems and Critical Thinking for Analyst
12. Concat or merge Dataframes
13. Different ways of creating dataframes
14. Creating reports About the Data
15. Visualization with Matplotlib
16. Visualization with Seaborn
17. Exploratory Data Analysis(case study)
18. Scipy
19. Numpy Linalg
20. Reading Data CSV and TXT
21. Reading Data from Databases
22. Parsing HTML and Saving Data
23. Import All Important Libraries WITH Pyforest
24. Python Functions and Collections, Positional and Keywords Arguments
25. Python OOPS - Classes, Variables, Methods and Objects
26. Custom Exception Handling
27. Assert Statement In Python
28. Iterators and generators
29. Namespaces and Scope
30. Decorators Indepth Implementation
31. Exception handling and import libraries
32. Classes, Magic Methods In Classes
33. Class Variables And Class Methods In Python
34. Object
35. Method
36. Inheritance
37. Polymorphism
38. Data abstraction
39. Ensapsulation
40. Files IO
41. Is vs ==
42. Shallow Copy Vs Deep Copy in Python
43. Static Methods
44. Unit Testing
45. BigO
46. Advance House Price Prediction- Exploratory Data Analysis(1saat)
47. BeautifulSoup
48. Web scaping
49. Debugging