Beginner Level Python

1. Motivation & Demo
2. Writing Our First Python Program
3. Using Python As A Calculator
4. Comments, Escape Sequences & Print Statement
5. Variables, Datatypes and Typecasting
6. String Slicing And Other Functions In Python
7. Python Lists And List Functions
8. Dictionary & Its Functions Explained
9. Python Exercise 1 – Meri/Apni Dictionary
10. Sets In Python
11. If Else & Elif Conditionals In Python
12. Exercise 1 - Solution And Your Answers
13. Python Exercise 2 - Faulty Calculator
14. For Loops In Python
15. While Loops In Python
16. Break & Continue Statements In Python
17. Python Exercise 2: Faulty Calculator Solution
18. Python Exercise 3 - Guess The Number
19. Operators In Python
20. Short Hand If Else Notation In Python
21. Functions And Docstrings

Medium Level

1. Try Except Exception Handling In Python
2. Python File IO Basics
3. Open(), Read() & Readline() For Reading File
4. Python Exercise 3: Solution
5. Writing And Appending To A File
6. Python Exercise 4: Astrologer's Stars
7. Seek(), tell() & More On Python Files
8. Using With Block To Open Python Files
9. Exercise 5: Health Management System
10. Scope, Global Variables and Global Keyword
11. Recursions: Recursive Vs Iterative Approach
12. Exercise 4: Solution And First Solver

Advance Level

Anonymous/Lambda Functions In Python #36

1. Exercise 5: Solution
2. Using Python External & Built In Modules

F-Strings & String Formatting In Python

Exercise 6: Game Development: Snake Water Gun

Exercise 7: Healthy Programmer

1. Decorators In Python
2. Classes & Objects (OOPS)
3. Creating Our First Class In Python
4. Instance & Class Variables
5. Self & \_\_init\_\_() (Constructors)
6. Class Methods In Python
7. Class Methods As Alternative Constructors
8. Static Methods In Python
9. Abstraction & Encapsulation
10. Single Inheritance

Multiple Inheritance

Multilevel Inheritance

1. Public, Private & Protected Access Specifiers
2. Polymorphism In Python
3. Super() and Overriding In Classes

Diamond Shape Problem In Multiple Inheritance

Operator Overloading & Dunder Methods

Abstract Base Class & @abstractmethod

Setters & Property Decorators

Object Introspection

1. Python Mini Project #1

Calculator best/shortest:

a = (input("Enter first num: "))

operator = (input("Enter Operator: "))

b = (input("Enter Second num: "))

expression = a + operator + b

mydict = {"45\*3":"Error!","56+9":"Error!","56/6":"Error!"}

if expression in mydict:

    print(mydict[expression])

else:

    print("Result: ", eval(expression))