Part one lectures:

1. Python Introduction1
2. Theory Python Introduction 2
3. Tools we can use to run Python Code
4. Basic Python Syntax using replit
5. Python Data Types and How to write comments
6. First Data Type – Integer
7. Second Data Type – Float
8. Operators (Power, Module, Floor Division, Operator Precedence
9. Math functions like abs() and round()
10. Variables and rules we need to name them
11. Reassign values to existing variables
12. What are expressions and statements in Python
13. Augmented assignment operator

Part two lectures:

1. String Data Type
2. Type Conversion or Type casting – explicit type casting
3. Implicit Type Casting
4. Formatted Strings & How Strings are Stored in Memory
5. Escape Characters
6. String Slicing
7. String Slicing with step-over
8. Strings are immutable
9. Python Mini-Project
10. Functions and Methods (built-in Python Functions)
11. Python IN Keyword

Part three lectures:

1. PYTHON LISTS - Another Data Type / Data Structure
2. List slicing
3. In Keyword and multi-dimensional lists
4. Lists Methods
5. Tips and Tricks that programmers use on Lists
6. None Data Type, None Keyword
7. Dictionaries in Python
8. Dictionary Methods and IN Keyword with Dictionaries
9. Tuples (Another Data Type), Slicing and Unpacking Tuples
10. Tuple Methods
11. Sets Another Data Type / Data Structure
12. Set Methods

Part four lectures:

1. Control Structures If, if-else, elif
2. Python Indentation
3. Operators, Logical and Comparison Operators
4. Truthy vs Falsy values
5. Ternary Operator
6. Short circuiting
7. Identity Operators
8. Is operator vs equality operator
9. Loops in Python – For loop
10. Python Nested loops (for-loops)
11. While loops

Part five lectures:

1. Iterables, Looping Over a Dictionary
2. Range functions and loops
3. Enumerate functions and loops
4. Break, Continue and Pass Statements
5. Practice Time - Exercise
6. Functions, Function Arguments and Parameters
7. Positional and Keyword Arguments
8. Function – Default Parameters
9. Function Return
10. Nested Functions
11. Docstrings

Part 6 lectures:

1. \*args, \*\*kwargs
2. Scope – Global, Function (block scope)
3. Global Keyword (Local and Function Scope)
4. Nonlocal keyword
5. Installing Python locally
6. Installation of VSCode editor to Write and Execute Python Code
7. PEP8
8. Installing PyCharm IDE to Write and Execute Python Code
9. Terminal Commands

Part 7 lectures:

1. Introduction to OOP ( Object Oriented Programming) Classes and Objects
2. Class Constructors, Attributes and Methods
3. Class Object Attributes
4. \_\_init\_\_ Speacial Dunder/Magic Method
5. Constructor with default values
6. Class Methods
7. Static Method
8. 1st Pillar of OOP – Encapsulation
9. 2nd Pillar of OOP – Abstraction
10. Private and Public Variables in Python
11. 3rd Pillar of OOP – Inheritance
12. Inheritance & Method Overriding

Part 8 lectures:

1. Summarize part 7 , small exercise
2. Isinstance() function
3. 4th Plillar of OOP – Polymorphism
4. Exercise
5. Code Introspection in Python
6. Dunder/Magic Methods
7. Multiple Inheritance
8. MRO – Method Resolution Order