SLOG SOLUTIONS PRIVATE LIMITED
TECHNOLOGY: PYTHON
DURATION: MODULE 1 (4 WEEKS)
MODULE 1 + 2 (6 WEEKS)

MODULE 1:

INTRODUCTION TO PYTHON

Week1:

- Introduction to Python
- Installation and Working with Python
- Understanding Python variables
- Python basic Operators
- Understanding python blocks
- Declaring and using Numeric data types: int, float, complex
- Using string data type and string operations
- Defining list and list slicing
- Use of Tuple data type
- String Formatting
- Use of fstrings
- Converting data types
- Conditional blocks using if, else and elif

- Simple for loops in python
- For loop using ranges, string, list and dictionaries
- Use of while loops in python
- Loop manipulation using pass, continue, break and else
- Programming using Python conditional and loops block
- Organizing python codes using functions

Week 2:

- Understanding Packages
- Powerful Lambda function in python
- Programming using functions, modules and external packages
- Building blocks of python programs
- Understanding string in build methods
- List manipulation using in build methods
- Dictionary manipulation

- Reading config files in python
- Writing log files in python
- Understanding read functions, read(), readline() and readlines()
- Understanding write functions, write() and writelines()
- Concept of class, object and instances
- Constructor, class attributes and destructors
- Inheritance , overlapping and overloading operators
- Programming using Oops support

Week 3:

- SQL Database connection using python
- Flask
- Creating and searching tables
- Reading and storing config information on database

- List Comprehensions
- Nested Listed
- Kwargs
- Dictionary unpacking
- Tuple unpacking
- Built in functions
- Debugging a program

Week 4:

- Requesting JSON with Python
- OOPS
- Magic Methods
- Iterators and generators
- Higher order functions
- Decorators
- File I/O
- CSV files

Module 2:

Week 5:

- Web Scraping
- Web Scraping with beautiful soup
- Project on Web Scraping
- Python Socketing

Week 6:

- Encryption and Decryption
- Creating a webcrawler with python
- XSS Header
- Understanding CSRF

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