Subject Code	Subject Name	Credits
26CS152	DATA STRUCTURES USING PYTHON LAB	2

Objectives:
Understand the fundamentals of Python for implementing data structures. Learn how different data structures organize, store, and manage data efficiently. Develop problem-solving skills using structured approaches

1. Create a Python program to demonstrate the concepts of OOP'S: Inheritance, Polymorphism, Abstraction
2. Python program to implement List, Tuples, Set, Dictionaries, Strings, slicing.
3. Python program to implement searching algorithms: Linear and Binary search.
4. Python program to implement sorting algorithms: Bubble Sort, Selection Sort, Insertion Sort, Merge Sort, and Quick Sort.
5. Python program to implement Stacks and Queues, priority queues.
6. Python program to implement Linked List, Doubly linked list and circular linked list
7. Python program to implement graph traversals: BFS and DFS
8. Python program to implement Tree data structures, Binary Search Trees.

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.

SJU
FULLY HUMAN
Fully Alive