Department of Information Technology,
Walchand College of Engineering, Sangli
Course Planner(Lab)

Course Name and Code: Datastructures lab

Class: B.Tech IT   **Course I/C:** Mrs.B.S.Shetty

Online Tool used:Webex/team/meet/zoom/obs/ (write name)

Offline Tool for recodring used:Webex/team/zoom/obs/ (write name)

Week (13)	Experiment/Problem Statement	Mode of Demonstration				Mode of delivery	Assignments/Hw/Quiz/OBT	Due Date	
		Online	Offline	Flipped	Q & A (Interactive)	PPT/Board/Video /etc.			
1/13	Implementation of structures and recursion	✓ ✓	✓			**Vlab and geeks for geeks**	1.Write a program using structure which accept information about two student and display same information according to ascending order of their name,, 2. Write a program to solve tower of Hanoi problem. 3. Write a program to solve Ackerman problem.	Week1	
2/13	Implementation of stack and its applications	✓	✓		✓	**Vlab and geeks for geeks**	1. Write a program to implement stack using array. 2. Write a program to convert infix expression into postfix expression. 3. Write a program to evaluate postfix expression.	Week2	
3/13	Implementation of	✓				**Vlab and geeks**	1.Write a program to implement queue using array.		

#	Topic					Reference	Programs	Week
	different types of queues		✓			**for geeks**	2.Write a program to implement Circular Queue using array..	
					✓		3.Write a program to implement Circular Queue using linked list.	Week 3
4/13	Implementation of different types linked list				✓	**Vlab and geeks for geeks**	1.Write a program to implement Singly Linked List. (write insert, delete, search, and display function) 2.Write a program to implement Circular Linked List. (write insert, delete, search, and display function)	
		✓						Same Week
					✓		3.Write a program to implement Doubly Circular Linked List. (write insert, delete, search, and display function)	
5/13	Implementation of different operations on linked list	✓				**Vlab and geeks for geeks**	1.write program to concatenate the two linked list 2.Write program to Reverse given linked list 3.Write program to create ordered linked list	
6/3	Implementation of Binary trees and its traversals	✓				**Vlab and geeks for geeks**	1.Write a program to implement binary tree with insert, delete and search function 2.Write a program for inorder, postorder and preorder traversal of binary tree	
7/13	Implementation of Binary Search trees	✓				**Vlab and geeks for geeks**	1.Write a program to implement BST with insert, delete and search function	

							Vlab/geeks	Program	
								2.Write a program for inorder, postorder and preorder traversal of BST	
8/13	Implementation of Graphs				✓		Vlab and geeks for geeks	1.Write a program to represent graph using matrix and traversal of graph by BFS and DFS 2.Write a program to represent graph using linked list and traversal of graph by BFS and DFS	
9/13	Implementation of searching algorithm		✓				Vlab and geeks for geeks	1.Write a program for sequential search 2.Write a program for binary search 3. Write a program for fibonacci search	
10/13	Implementation of sorting	✓					Vlab and geeks for geeks	1.Write a program for Bubble sort 2. Write a program for Selection sort 3. Write a program for Insertion sort 4.Write a program for Shell sort	
11/13	Implementation of sorting	✓					Vlab and geeks for geeks	1.Write a program for Quick sort 2. Write a program for Heap sort 3. Write a program for Merge sort	
12/13	Implementation of Hashing table	✓					Vlab and geeks for geeks	Write a program for different hashing methods	

13/3	Implementation of file handling operations	✓				**Vlab and geek for geek**	Write program for different file handing operations	

Note:

1. Practical's in online, offline, Flipped or Q and A will be conduct as per the timetable

2. Assignment to be submit on Moodle(In time)

3. Webex (Online), Impartus (Offline) will be available in time of lectures to students

4. Students are informed to be prepare for Q and A lecture (In every week)