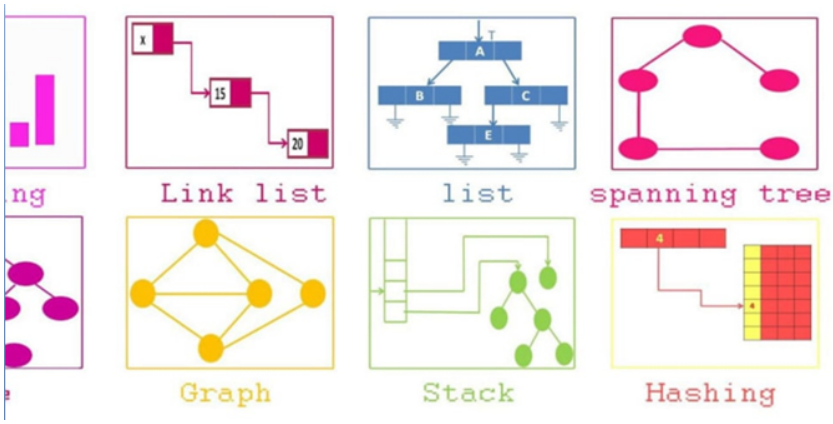

Data Structure & File Processing

COMP302TH

Course Outcomes:

- ***Students will possess the skill to design, implement and analyze different data structures and be capable of developing applications that leverage these concepts efficiently.***
- ***Students will be equipped with knowledge and skills to perform efficient searching and work with different file systems and organizations.***

Course Material:

All the course material will be available on Canvas.

In the beginning of the course, all the students will receive an invite on their respective e-mail IDs for joining the course.

I will use e-mail Ids that you have filled in your Admission forms. If some of you will be using any alternate e-mail ID then do update me.

Link to Course Material: Will update as the session starts

All the assignments, quizzes and tests will be maintained online on Canvas only. Communication via email is preferable. So, do email me for any queries or information regarding joining the course.

For queries related to course material, the in-built messaging system of canvas is recommended.

Course Schedule

Total Lectures: 22 + Lab Exercises (Implementation in Python)

Class Time: as per time-table approved by the College.

Room No: 129 (1st Floor, Old Building Govt. College Hamirpur)

All the practical classes will be conducted in the Department of Computer Science Lab (Room No: 128) on the 1st floor of the old building of Govt. College Hamirpur.

The schedule of lectures will be in accordance with the approved academic calendar of the college.

Lecture	
	Introduction
Lecture: 1	Data Structures what and why
Lecture: 2	Stacks
Lecture: 3	Balanced Parenthesis, infix and postfix notation
Lecture: 4	Queues
	Unit Test- 1
Lecture: 5	Linked Lists
Lecture: 6	Linked Lists Part-II
Lecture: 7	Operations on Linked Lists
Lecture: 8	Trees

Lecture: 9	Binary Trees
Lecture: 10	Binary Search Tree (Part-I)
Lecture: 11	Binary Search Tree (Part-II)
Lecture: 12	Searching
Lecture: 13	Binary Search
Unit Test- 2	
Lecture: 14	Implementation in Python
Lecture: 15	Memory Management
Lecture: 16	Memory Management Issue
Lecture: 17	Garbage Collection Algorithms for equal sized blocks
Lecture: 18	Garbage Collection Algorithms for objects with mixed size
Lecture: 19	Characteristics of Storage Devices
Lecture: 20	I/O Buffering
Lecture: 21	Basic File System Operations
Lecture: 22	File Organizations
Unit Test-3	