**CMPSC 412 – Lab-10** (100 points)

**Develop your own Data Structure**

**Due date: 12/09/2022**

**Lab Exercises:**

Design and develop your own data structure to implement an application of your interest.

You can develop your own abstract data structure or implement a data structure from combination of the following data structures:

List, dictionary, sets, array, stack, queue, deque, tree, graph, linked list, heaps, priority queue and hash tables.

Your report should include the following:

1. **Introduction about the application:**
2. **Design of the data structure:**
3. **Justification of developing the data structure:**
4. **Implementation and results:**
5. **Conclusion:**

* What do you understand from this exercise? Explain in detail.

Deliverables:

Report and the program file.

You should demonstrate this application in class.