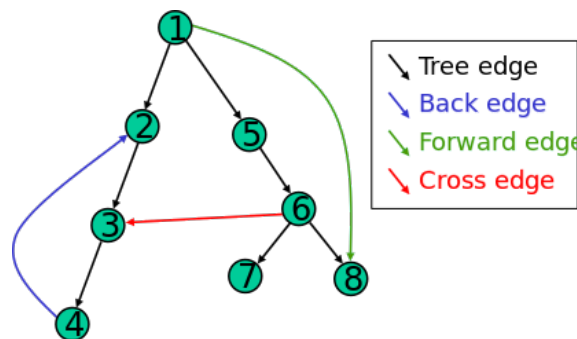


### Lab Exercise 3 | Week 4

Implement **Depth First Search (DFS) Algorithm** using adjacency list.

1. Input: Graph as shown in the figure using adjacency list
2. Print the traversal of the search from given vertex ***u***.
  - 4 3 2 7 8 6 5 1 (Refer Figure 1), when ***u*** is 1.
3. Print the tree edges and back edges. (Refer Figure 1)
  - Tree edges: 1-2, 1-3, 3-4, 1-5, 5-6, 6-7, 6-8
  - Back edges: 4-2



**Figure 1:** Example graph to be considered for implementation