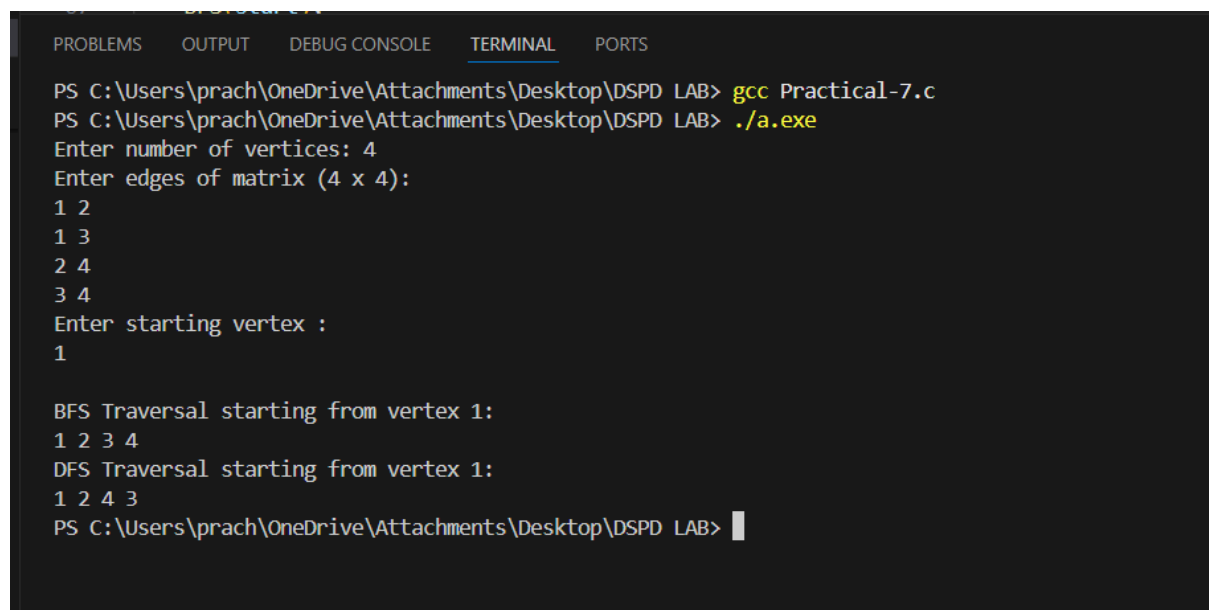


# DATA STRUCTURE AND PROGRAM DESIGN LAB – 07

Consider the undirected graph G, consisting of n nodes laid out in a 3 -by- 3 grid:  
Start searching at node 1, and break ties for exploring the next node based on lower numerical order (i.e. add nodes to a queue low to high, add nodes to a stack high to low). (a) In what order are nodes marked as explored by BFS? (b) In what order are nodes marked as explored by DFS?

SAMPLE OUTPUT:



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\prach\OneDrive\Attachments\Desktop\DSPD LAB> gcc Practical-7.c
PS C:\Users\prach\OneDrive\Attachments\Desktop\DSPD LAB> ./a.exe
Enter number of vertices: 4
Enter edges of matrix (4 x 4):
1 2
1 3
2 4
3 4
Enter starting vertex :
1

BFS Traversal starting from vertex 1:
1 2 3 4
DFS Traversal starting from vertex 1:
1 2 4 3
PS C:\Users\prach\OneDrive\Attachments\Desktop\DSPD LAB> |
```