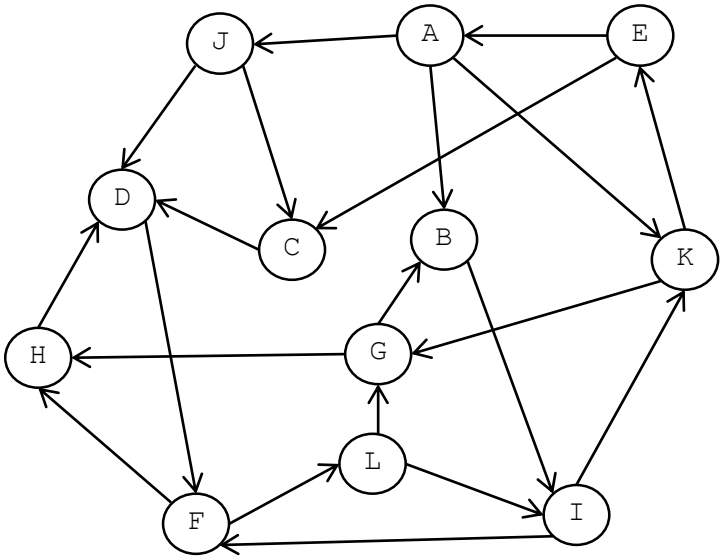
EHB 208E - Data Structures & Programming
Homework-3

Assignment Date :	21.05.2021
Due Date :	04.06.2021 at 18:00

Write a C program (not C++) to do the followings.

- Define and initialize an **Adjacency Matrix** for the **Directed Graph** shown below. (Adjacency Matrix is a two-dimensional integer array.)
- Display the list of available node names to user, and ask user to enter a **Starting** node and an **Ending** node for travelling in the graph.
- By using the **Recursive Depth-first** travel method and the Adjacency Matrix, find a solution path between the Starting node and the Ending node.
- Selection Rule : If there are multiple choices to go at a step, program should choose the alphabetically smallest unvisited neighbor of the node.
- Display the **Solution Path** on screen.



EXAMPLE SCREEN OUTPUT

```
RECURSIVE DEPTH-FIRST SEARCH METHOD

NODES IN DIRECTED GRAPH:
 1. A
 2. B
 3. C
 4. D
 5. E
 6. F
 7. G
 8. H
 9. I
10. J
11. K
12. L
Enter numbers of Starting and Ending nodes : 1  4

SOLUTION PATH =
A  B  I  F  H  D
```

Important : Make sure that your homework file has .c extension (not .cpp), and the file with .c extension can be compiled without compiler errors.