



ASSIGNMENT 2

SUBJECT = DATA STRUCTURE AND ALGORITHM

NAME = MOHAMMED TANZEEL J M

USN = 24UG00522

BRANCH = ELECTRONICS ENGINEERING VLSI AND ES

Problem Statement:

You are required to model a 2D grid of characters as a graph, where each cell acts as a node, and edges exist between horizontally and vertically adjacent cells (no diagonal connections).

Given a target word, your program should search for occurrences of the word in the grid horizontally (left to right) or vertically (top to bottom).

For each occurrence of the word found, print the start node and end node coordinates. If there are no occurrences, print Word not found

OUTPUT = IF THERE ARE OCCURRENCES

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS E:\PRACTICEQ.C\.vscode> gcc ASSIGNMENT2.C -o ASSIGNMENT2
PS E:\PRACTICEQ.C\.vscode> ./ASSIGNMENT2
Enter number of rows and columns: 7 7
Enter the grid (each row of capital letters):
TANZEEL
ANZEEEL
NOOYESS
ZEECODE
EMBEDED
ETENZZZ
LOVEEEE
Enter the target word: TANZEEL
Start: (1,1) End: (1,7)
Start: (1,1) End: (7,1)
```

OUTPUT = IF THERE ARE NO OCCURRENCES

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS E:\PRACTICEQ.C\.vscode> gcc ASSIGNMENT2.C -o ASSIGNMENT2
PS E:\PRACTICEQ.C\.vscode> ./ASSIGNMENT2
Enter number of rows and columns: 7 7
Enter the grid (each row of capital letters):
TANZEEL
AZEELEE
NLOVEEE
ZEEVOLE
EMBEDED
EMTENZZ
LOOVEEE
Enter the target word: TENZIL
Word not found
```