#include <stdio.h>

#define MAX 5

void depth\_first\_search(int adj[][MAX],int visited[],int start)

{

int stack[MAX];

int top=-1,i;

printf("%c–",start + 65);

visited[start] = 1;

stack[++top] = start;

while(top!=-1)

{

start = stack[top];

for(i = 0; i < MAX; i++)

{

if(adj[start][i] && visited[i] == 0)

{

stack[++top] = i;

printf("%c–", i + 65);

visited[i] = 1;

break;

}

}

if(i == MAX)

top--;

}

}

int main()

{

int adj[MAX][MAX];

int visited[MAX] = {0}, i, j;

printf("\n Enter the adjacency matrix: ");

for(i = 0; i < MAX; i++)

for(j = 0; j < MAX; j++)

scanf("%d", &adj[i][j]);

printf("DFS Traversal: ");

depth\_first\_search(adj,visited,0);

printf("\n");

return 0;

}

Output:

