**#include <stdio.h>**

**#include <stdlib.h>**

**#define max 100**

**void DFS(char nodes[max],int adjmat[max][max],int visited[max],int n,int i)**

**{**

**int j;**

**char c=nodes[i];**

**printf("%c ",c);**

**visited[i]=1;**

**for(j=0;j<n;j++)**

**if(!visited[j]&&adjmat[i][j]==1)**

**DFS(nodes,adjmat,visited,n,j);**

**for(j=0;j<n;j++)**

**if(!visited[j])**

**DFS(nodes,adjmat,visited,n,j);**

**}**

**void main()**

**{**

**int n,e,i,j,a,b;**

**int adjmat[max][max];**

**char nodes[max];**

**int visited[max];**

**printf("\nEnter the number of nodes : ");**

**scanf("%d",&n);**

**printf("\nThe Nodes are :");**

**for(i=0;i<n;i++)**

**{**

**nodes[i]=(65+i);**

**printf(" %c",nodes[i]);**

**}**

**printf("\n\nEnter the number of edges : ");**

**scanf("%d",&e);**

**for(i=0;i<n;i++)**

**for(j=0;j<n;j++)**

**adjmat[i][j]=0;**

**for(i=1;i<=e;i++)**

**{**

**printf("Edge no %d is between edge no \_\_\_ and \_\_\_ : ",i);**

**scanf("%d %d",&a,&b);**

**adjmat[a-1][b-1]=adjmat[b-1][a-1]=1;**

**}**

**printf("\n\nThe Edge Matrix is \n");**

**for(i=0;i<n;i++)**

**{ for(j=0;j<n;j++)**

**printf("%d ",adjmat[i][j]);**

**printf("\n");**

**}**

**printf("\n");**

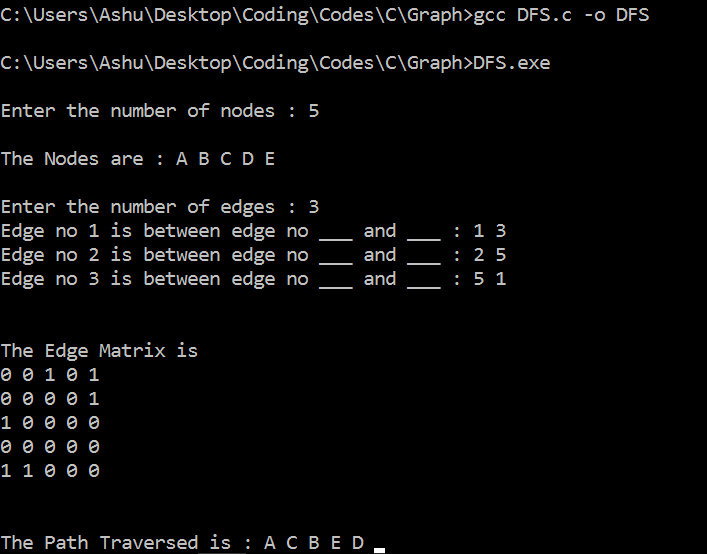
**printf("\nThe Path Traversed is : ");**

**DFS(nodes,adjmat,visited,n,0);**

**fflush(stdin);**

**getchar();**

**}**

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