**Experiment 1: DFS Implementation**

#include<stdio.h>

void DFS(int);

int G[10][10],visited[10],n; //n is no of vertices and graph is sorted in array G[10][10]

void main()

{

int i,j;

printf("Enter number of vertices:");

scanf("%d",&n);

//read the adjecency matrix

printf("\nEnter adjecency matrix of the graph:");

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

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

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

//visited is initialized to zero

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

visited[i]=0;

DFS(1);

}

void DFS(int i)

{

int j;

//printf("\n%d",i);

visited[i]=1;

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

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

DFS(j);

printf("%d",i);

}