Depth First Search (DFS)

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#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(0);
}
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);
}
```