LAB-5

DFS_ConnectedGraph.c

```
#include<stdio.h>
void dfs(int);
int a[10][10],vis[10],n,flag=0;
void main()
{
  int i,j,src;
  printf("Enter number of vertices:: \n");
  scanf("%d",&n);
  printf("Enter adjacency matrix:: \n");
  for(i=1;i<=n;i++)
  {
    for(j=1;j<=n;j++)
    {
      scanf("%d", &a[i][j]);
    }
 }
for(i=1;i<=n;i++)
vis[i]=0;
printf("Enter source vertex\n");
```

```
scanf("%d",&src);

dfs(src);

for(i=1;i<=n;i++)
{
   if(vis[i] == 0)
   {
      printf("Graph not connected\n");
      flag=1;
      break;
   }
}
if(flag==0)
printf("Graph connected\n");
}
void dfs(int v)
{
int i;
vis[v]=1;

  for(i=1;i<=n;i++)
```

```
  {
      if(a[v][i]==1 && vis[i]==0)
     dfs(i);
  }
}
```