

1BM21CS255

Vibha Hugar ADA LAB

WEEK 2

CODE FOR DFS

```
#include<stdio.h>

void dfs(int);

int a[10][10], vis[10],n;

void main()
{
    int i,j;

    printf("Enter the number of vertices : ");

    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("DFS Traversal\n");

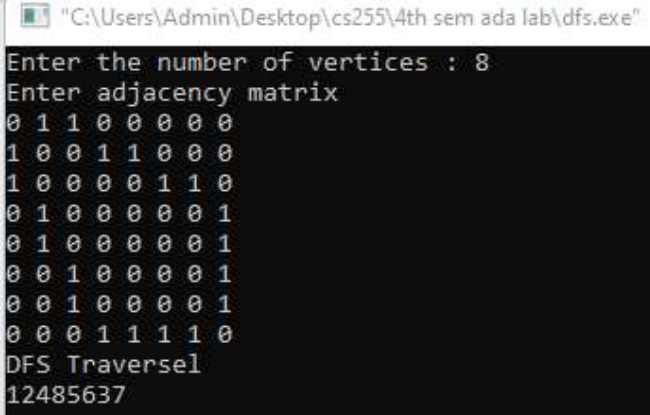
    for(i=1;i<=n;i++)
    {
```

```

if(vis[i]==0)
dfs(i);
}
getch();
}
void dfs(int v)
{
int i;
vis[v]=1;
printf("%d",v);
for(i=1;i<=n;i++)
{
if(a[v][i]==1 && vis[i]==0)
dfs(i);
}
}
}

```

OUTPUT



```

"C:\Users\Admin\Desktop\cs255\4th sem ada lab\dfs.exe"
Enter the number of vertices : 8
Enter adjacency matrix
0 1 1 0 0 0 0 0
1 0 0 1 1 0 0 0
1 0 0 0 0 1 1 0
0 1 0 0 0 0 0 1
0 1 0 0 0 0 0 1
0 0 1 0 0 0 0 1
0 0 1 0 0 0 0 1
0 0 0 1 1 1 1 0
DFS Traversal
12485637

```