WEEK 2

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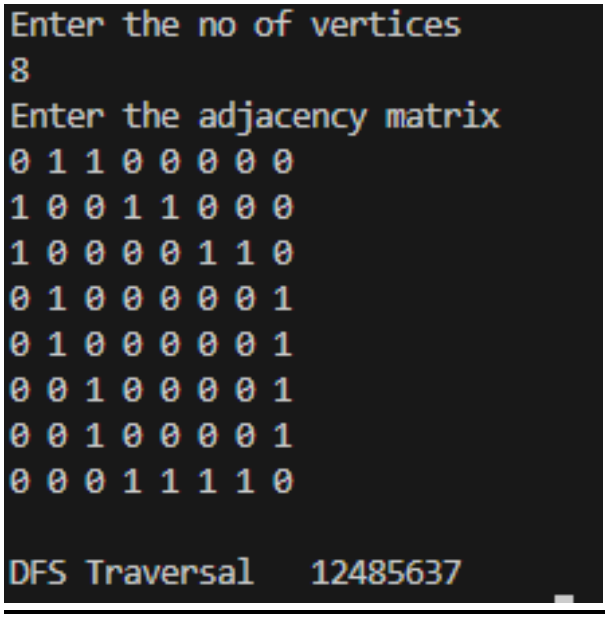
Q) Check whether a given graph is connected or not using the DFS method.

INPUT:

```
#include<stdio.h>


int a[10][10],vis[10],n;
void dfs();


int main(){
   int i,j;
   printf("Enter the no of vertices\n");
   scanf("%d",&n);
   printf("Enter the 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("\nDFS Traversal\t");
    for(i=1;i<=n;i++){
        if(vis[i]==0){
            dfs(i);
        }
    }
    return 0;
}

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:


Enter the no of vertices
8
Enter the 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