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Roll no - 52

Code -
```c
#include <stdio.h>
#include <stdlib.h>
int source,V,E, time,visited [20], G[20][20];
void DFS(int i)
{
        int j;
        visited[i]=1;
        printf("%d->",i+1);
        for(j=0;j<V; j++)
        {
                if(G[i][j]==1&&visited[j]==0)
                DFS(j);
        }
}
int main()
{
        int i,j,v1,v2;
        printf("\t\t\tGraphs\n");
        printf("Enter the no of edges: ");
        scanf("%d", &E);
        printf("Enter the no of vertices:");
        scanf("%d", &V);
        for(i=0;i<V;i++)
        {
                for(j=0;j<V; j++) G[i][j]=0;
        }
        for(i=0;i<E;i++)
        {
        printf("Enter the edges (format: V1 V2) : ");
        scanf("%d %d",&v1,&v2);
        G[v1-1][v2-1]=1;
        }
        for(i=0;i<V;i++)
        {
                for(j=0;j<V; j++)
                printf("%d ",G[i][j]);
                printf("\n");
        }
        printf("Enter the source: ");
        scanf("%d", &source);
                DFS (source-1);
```

```
        return 0;
}
```