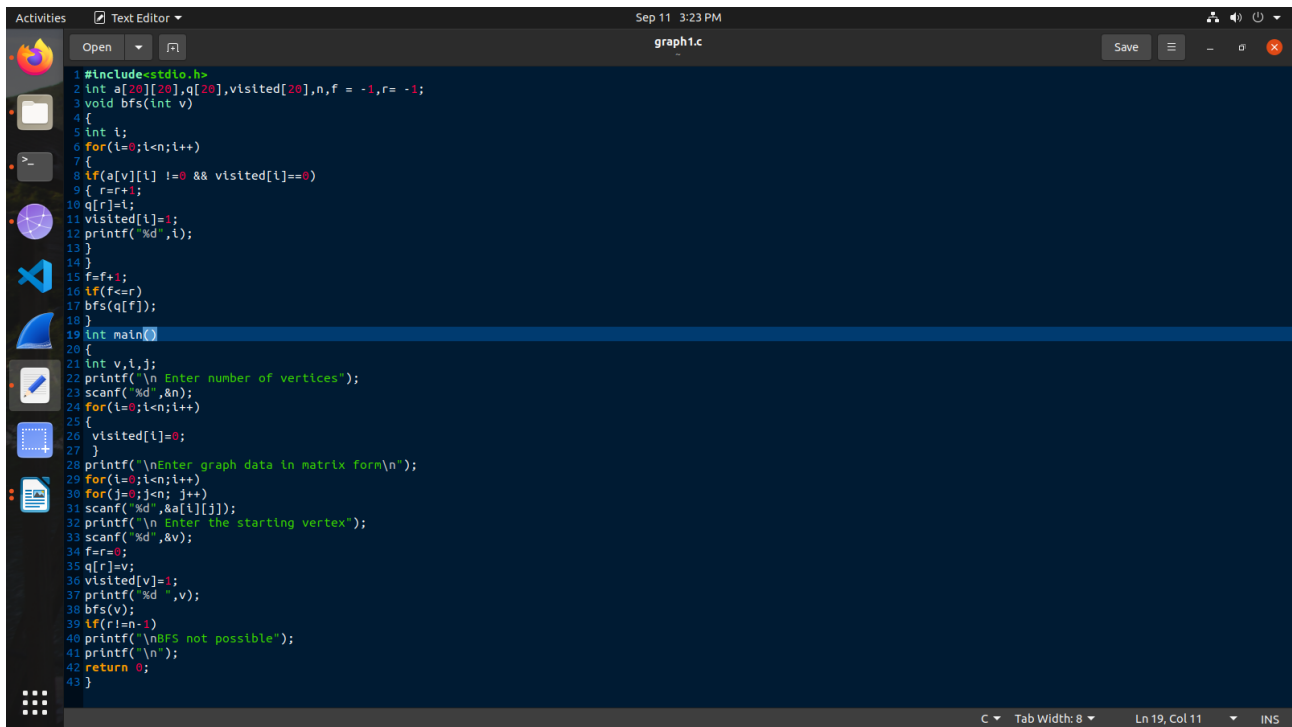


Name : Parmesh Vala

Roll no : 63



The screenshot shows a text editor window titled 'graph1.c' with the following C++ code:

```
1 #include<stdio.h>
2 int a[20][20],q[20],visited[20],n,f = -1,r= -1;
3 void bfs(int v)
4 {
5     int i;
6     for(i=0;i<n;i++)
7     {
8         if(a[v][i] !=0 && visited[i]==0)
9         {
10             f=r+1;
11             q[r]=i;
12             visited[i]=1;
13             printf("%d",i);
14         }
15         f=f+1;
16         if(f<=r)
17             bfs(q[f]);
18     }
19 }
20 int main()
21 {
22     int v,i,j;
23     printf("\n Enter number of vertices");
24     scanf("%d",&n);
25     for(i=0;i<n;i++)
26     {
27         visited[i]=0;
28     }
29     printf("\nEnter graph data in matrix form\n");
30     for(i=0;i<n;i++)
31     {
32         for(j=0;j<n;j++)
33             scanf("%d",&a[i][j]);
34     }
35     printf("\n Enter the starting vertex");
36     scanf("%d",&v);
37     f=r=0;
38     q[r]=v;
39     visited[v]=1;
40     printf("%d",v);
41     if(r!=n-1)
42         bfs(q[r+1]);
43     printf("\nBFS not possible");
44     printf("\n");
45     return 0;
46 }
```



The screenshot shows a terminal window with the following output:

```
dl07@ltadmin:~$ ./a.out
Enter number of vertices
5
Enter graph data in matrix form
0 1 0 0 1
1 0 1 1 1
0 1 0 1 0
0 1 1 0 1
1 1 0 1 0
Enter the starting vertex
3
1240
dl07@ltadmin:~$
```

```
Activities Text Editor Sep 11 3:26 PM
graph2.c
Save

1 #include <stdio.h>
2 #include <stdlib.h>
3 int source,V,E, time,visited [20], G[20][20];
4 void DFS(int i)
5 {
6     int j;
7     visited[i]=1;
8     printf("%d->", i+1);
9     for(j=0;j<V; j++)
10 {
11     if(G[i][j]==1&&visited[j]==0)
12     DFS(j);
13 }
14 }
15 int main()
16 {
17     int i,j,v1,v2;
18     printf("\t\t\tGraphs\n");
19     printf("Enter the no of edges: ");
20     scanf("%d", &E);
21     printf("Enter the no of vertices:");
22     scanf("%d", &V);
23     for(i=0;i<V;i++)
24 {
25     for(j=0;j<V; j++) G[i][j]=0;
26 }
27     for(i=0;i<E;i++)
28 {
29     printf("Enter the edges (format: V1 V2) : ");
30     scanf("%d %d",&v1,&v2);
31     G[v1-1][v2-1]=1;
32 }
33     for(i=0;i<V;i++)
34 {
35     for(j=0;j<V; j++)
36     printf("%d ",G[i][j]);
37     printf("\n");
38 }
39     printf("Enter the source: ");
40     scanf("%d", &source);
41     DFS (source-1);
42     return 0;
43 }
```

```
Activities Terminal Sep 11 3:11 PM
Terminal

dl07@itadmin:~$ ./a.out
Graphs
Enter the no of edges: 3
Enter the no of vertices: 4
Enter the edges (format: V1 V2): 1 2
Enter the edges (format: V1 V2): 8 3
Enter the edges (format: V1 V2): 7 5
0 1 0 0
0 0 0 0
0 0 0 0
0 0 0 0
Enter the source: 3
dl07@itadmin:~$
```