

```

#include<stdio.h>

#include<conio.h>

int a[20][20],q[20],visited[20],n,i,j,f=0,r=-1;

void bfs(int v) {

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

        if(a[v][i] && !visited[i])

            q[++r]=i;

    if(f<=r) {

        visited[q[f]]=1;

        bfs(q[f++]);

    }

}

int main() {

    int v;

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

    scanf("%d",&n);

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

        q[i]=0;

        visited[i]=0;

    }

    printf("\n Enter graph data in matrix form:\n");

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

        for (j=1;j<=n;j++)

            scanf("%d",&a[i][j]);

    printf("\n Enter the starting vertex:");

```

```

scanf("%d",&v);

bfs(v);

printf("%n The node which are reachable are:%n");

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

    if(visited[i])

        printf("%d\t",i); else

        printf("%n Bfs is not possible");

getch();

}

```

The screenshot shows a C++ IDE with a console window open. The console output is as follows:

```

Enter the number of vertices:3
Enter graph data in matrix form:
2
3
4
5
6
7
1
2
3
Enter the starting vertex:3
The node which are reachable are:
1 2 3
Process exited after 19.61 seconds with return value 0
Press any key to continue . . .

```

The IDE interface includes a menu bar (File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, Help), a toolbar, and a status bar at the bottom showing line numbers (Line: 34, Col: 2, Sel: 735) and parsing information (Done parsing in 0.016 seconds). The Windows taskbar at the bottom shows the date and time as 11:47 on 22-09-2022.