

```

#include<stdio.h>

#include<conio.h>

int a[8][7],q[4],visited[5],n,i,j,f=0,r=-1;

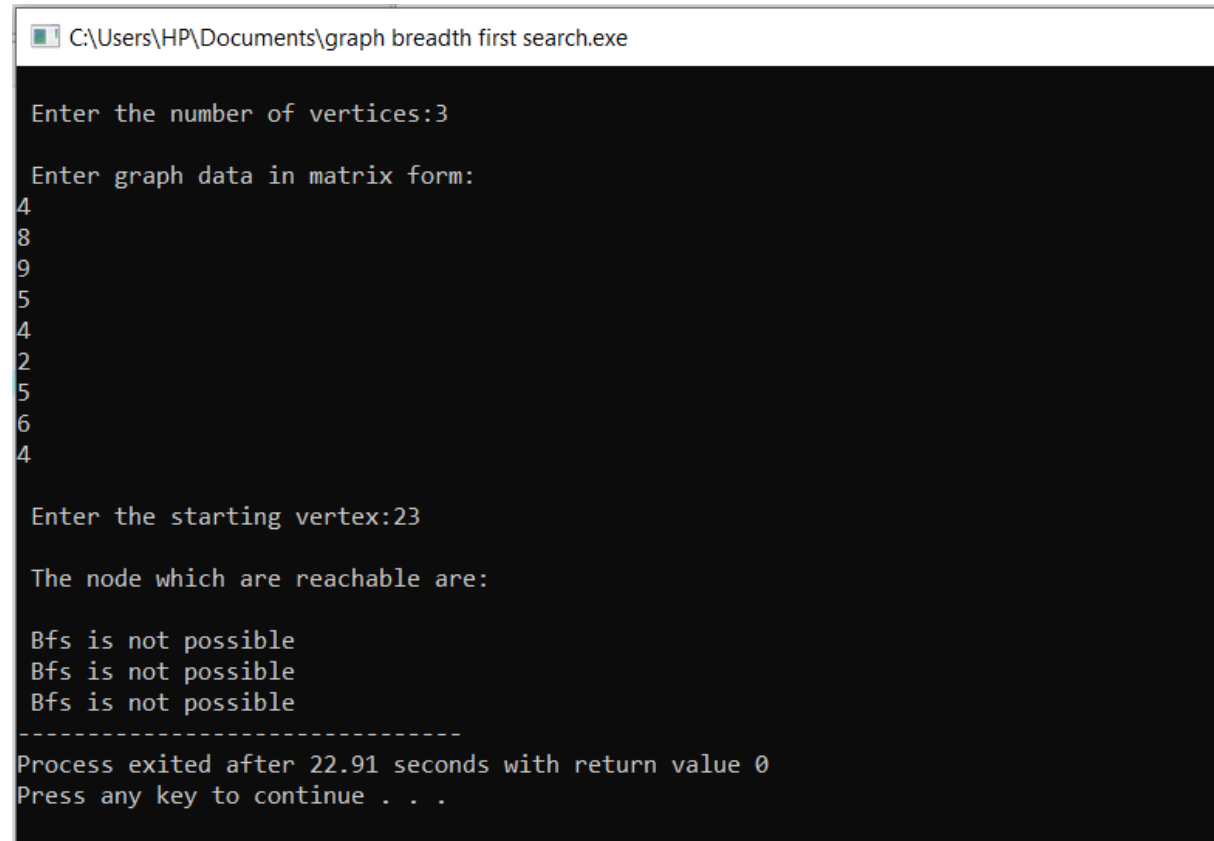
void bfs(int v) {
    for (i=1;i<=n;i++)
        if(a[v][i] && !visited[i])
            q[++r]=i;
    if(f<=r) {
        visited[q[f]]=1;
        bfs(q[f++]);
    }
}

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++)

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        if(visited[i])  
            printf("%d\t",i); else  
            printf("\n Bfs is not possible");  
        return 0;  
    }  
}
```



```
C:\Users\HP\Documents\graph breadth first search.exe  
  
Enter the number of vertices:3  
Enter graph data in matrix form:  
4  
8  
9  
5  
4  
2  
5  
6  
4  
  
Enter the starting vertex:23  
The node which are reachable are:  
  
Bfs is not possible  
Bfs is not possible  
Bfs is not possible  
-----  
Process exited after 22.91 seconds with return value 0  
Press any key to continue . . .
```