BFS

```
#include<stdio.h>
#include<conio.h>
int Q[10],f=0,r=0;
int vis[10],a[10][10];
void bfs(int v,int n){
   vis[v]=1;
   Q[r]=v;
   while(f<=r){
      int u=Q[f];
      printf("%d",u);
      for(int i=1;i<=n;i++){
         if(a[u][i]==1 && vis[i]==0){
            r=r+1;
            Q[r]=i;
            vis[i]=1;
         }
      }
      f=f+1;
   }
}
int main()
{
   int n,begin;
   int m,c,d,i,j;
   printf("Enter the number of vertices ");
   scanf("%d",&n);
   for(i=1;i<=n;i++){
      for(j=1;j<=n;j++){
         a[i][j]=0;
      }
   }
   printf("Enter the number of edges\n");
   scanf("%d",&m);
   for(i=1;i<=m;i++){
      printf("Enter the edges ");
      scanf("%d%d",&c,&d);
      a[c][d]=1;
   }
   printf("Enter the first node ");
   scanf("%d",&begin);
   printf("BFS traversal\n");
```

```
    bfs(begin,n);
    return 0;
}
```

Output:

```
Enter the number of edges
4
Enter the edges1 2
Enter the edges1 3
Enter the edges2 4
Enter the edges3 4
Enter the first node1
BFS traversal
1234
```