[6:50 PM, 4/16/2020]balaji@srm: #include<stdio.h>

```
int g[10][10],visited[10],n;
void DFS(int i) {
    int j;
    printf("\n%d,i");
    visited[i]=1;
    for (j=0;j<n;j++){
        if (!visited[j]&g[i][j]==1)
        DFS(j);
    }
}
void main() {
    int i,j;
    printf("Enter number of vertices:");
    scanf("%d",&n);
    printf("\nEnter adjancency matrix of the graph");
    for (i=0;i<n;i++){
        for (j=0;j<n;j++){
            scanf("%d",&g[i][j]);
        }
    }
    for(i=0;i<n;i++){
```

```
        visited[i]=0;
          DFS(0);
    }
}
```
[6:50 PM, 4/16/2020] balaji@srm:
```
#include<stdio.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++]);
            }
        }
    }
}
void main(){
    int v;
    printf("\nEnter the number of vertices:");
    scanf("%d",&n);
    for (i=1;i<=n;i++){
```

```
        q[i]=0;
        visited[i]=0;
    }
    printf("\nEnter graph data in matrix form:\n");
    for (i=1;i<=n;i++) {
        for (j=1;j<=n;j++){
            scanf("%d",&a[i][j]);
            printf("\nEnter the starting vertex:");
            scanf("%d",&v);
            bfs(v);
            printf("\nThe node which are reachable are:\n");
            for (i=1;i<=n;i++){
                if(visited[i])
                printf("%d\t",i);
                else
                printf("\nBFS is not possible");
            }
        }
    }
}
```