

[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 adjacency 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] Vardhan@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");

        }

    }

}

}

```