

# 1 Graph Algorithms

## 1.1 DFS/BFS

Standard traversals.

```
void dfs(int u) {  
    vis[u] = 1;  
    for(int v : adj[u]) if(!vis[v]) dfs(v);  
}
```

### OPT

Use iterative for deep recursion.

# 2 Data Structures

## 2.1 Segment Tree

Range queries.

### LIM

$N \leq 10^5 \implies O(N \log N)$