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/*      بسم الله الرحمن الرحيم  */  
/*      ربي جدن علما  */  
/*      نيمور رشيدايمون  */
```

```
#include <bits/stdc++.h>  
  
using namespace std;  
  
#define mod      1000000007  
  
#define nl      endl  
  
#define NI      endl  
  
#define pb      push_back  
  
#define in      insert  
  
#define ff      first  
  
#define ss      second  
  
#define pii      pair<int,int>  
#define pll      pair<ll,ll>  
  
#define vi      vector<int>  
#define vl      vector<ll>  
  
#define vii      vector<pair<int,int>>  
#define vll      vector<pair<ll,ll>>  
  
#define vc      vector<char>  
#define vs      vector<string>  
  
#define vpll      vector< pair<ll,ll> >  
  
#define sei      set<int>  
  
#define usei      unordered_set<int>  
  
#define ses      set<string>  
  
#define sepii      set< pair<int,int> >  
  
#define di      deque<int>  
  
#define sti      stack<int>  
  
#define qi      queue<int>
```

```

#define pqi      priority_queue<int>
#define mpai     map<int,int>
#define mpii     map<int,int>
#define mpll     map<ll,ll>
#define umii     unordered_map<int,int>
#define testcase {ll t;cin>>t;while(t--){solve();}}
#define NO       cout << "NO" << endl;
#define Yes      cout << "Yes" << endl;
#define No       cout << "No" << endl;
#define yes      cout << "yes" << endl;
#define no       cout << "no" << endl;
#define YES      cout << "YES" << endl;
#define all(c)   c.begin(), c.end()
#define rall(c)  c.rbegin(), c.rend()
#define min3(a, b, c) min(c, min(a, b))
#define min4(a, b,c,d) min(d, min(c, min(a, b)))
#define rrep(i, n) for(int i=n-1;i>=0;i--)
#define rep(i,n) for(int i=0;i<n;i++)
#define fastIO ios::sync_with_stdio(0); cin.tie(0);
typedef long long ll;
typedef long double ld;
typedef unsigned long long ull;
int dx[8] = {-1, 1, 0, 0,-1,1,-1,1};
int dy[8] = {0, 0, 1, -1,-1,1,1,-1};

#define pi      acos(-1.0)
#define cos(a)  cos(a*pi/180)
#define sin(a)  sin(a*pi/180)
#define tan(a)  tan(a*pi/180)
#define cosi(a) acos(a)/(pi/180)

```

```
#define sini(a) asin(a)/(pi/180)
```

```
#define tani(a) atan(a)/(pi/180)
```

```
#define Max3(a,b,c) max(a,max(b,c))
```

```
#define Min3(a,b,c) min(a,min(b,c))
```

```
ll Pow(ll c, ll d) {return d == 0 ? 1 : c * Pow(c, d - 1);}
```

```
ll gcd(ll a, ll b) {return b == 0 ? a : gcd(b, a % b);}
```

```
ll lcm(ll a, ll b) {return ((a * b) / gcd(a, b));}
```

```
ll BigMod(ll b, ll p, ll m) {if (p == 0) return 1;ll ans = BigMod(b, p/2, m);ans = ( ans * ans ) % m;if (p % 2 == 1) ans = (ans * b) % m;return ans;}
```

```
ll binarySearch(ll arr[], ll l, ll r, ll x) {if (r >= l){ll mid = l+(r-l) / 2;if (arr[mid] == x) return mid;if (arr[mid] > x) return binarySearch(arr, l, mid-1, x);return binarySearch(arr, mid+1, r, x);}return -1 ;}
```

```
ll ModInv(ll a, ll m){return BigMod(a, m-2, m);}
```

```
ll base_to_dec(ll base , string x){ll da = 0,j = 0,i = x.size() - 1;while(i>=0){int z = (x[j] - '0');da += z * Pow(base, i);i--,j++;}return da;}
```

```
ll intBanaw(string s)
```

```
{
```

```
    ll ans = 0;
```

```
    ll i = s.size() - 1;
```

```
    for (ll j = 1; i >= 0;i--,j*=10){
```

```
        ll x = s[i] - '0';
```

```
        ans += x*j;
```

```
    }
```

```
    return ans;
```

```
}
```

```
string stringBanaw(ll n)
```

```
{
```

```
    string ans;
```

```
    while(n)
```

```

    {
        int x = n % 10;

        ans += x + '0';

        n /= 10;
    }

    reverse(all(ans));

    return ans;
}

//BFS
int vis[100005];
int dist[100005];
queue<int> node;
void BFS()//source come from main BFS(int src)
{
    memset(vis, 0, sizeof(vis));

    // source node for test
    int src;

    printf("Enter source node to start BFS : ");

    cin>>src;

    node.push(src);

    vis[src] = 1;

    dist[src] = 0;

    while (!node.empty())
    {
        int u = node.front();

        node.pop();

        for(auto v : adj_list[u]) // u ---> v
        {
            if(vis[v])

```

```

        continue;
    vis[v] = 1;
    dist[v] = dist[u] + 1;
    node.push(v);
}
}
}

```

```

ll node,edge;
vector<ll> adj[100000];
void graph_input()
{
    cin >> node >> edge;
    for (ll i = 0; i < edge;i++)
    {
        ll u, v;
        cin >> u >> v;
        adj[u].pb(v);
        adj[v].pb(u);
    }
}

```

```

//dfs
bool vis[200000]={0};
void dfs(ll src)
{
    if(!vis[src])
    {
        cout << src << ' ';
    }
}

```

```
        vis[src] = 1;
        for(auto it : adj[src])
            dfs(it);
    }
}
```

```
void solve()
{
```

```
}
```

```
int main(){
    fastIO
    //testcase
    //solve();
    return 0;
}
```