

### 1. Fibonacci Using Recursion

### 2. Fibonacci Simulation :

Simulation by Pause & Active [ DFS Traversal / Pre - Order ]

### 3. DFS Pseudocode on Tree :

**Base case for DFS :**

```
Void DFS (Source Node){  
    If node have no child:  
        return  
    // Binary Tree :: Only Left & Child :  
        DFS(node.left_child)  
        DFS(node.right_child)  
    Or,  
    // Graph :: ALL CHILD:  
        DFS(All Child)  
}
```

### 4. DFS Pseudocode on Graph & Complexity :

Initiate Visited Array : []

```
void DFS(selected node) {  
    visitedArray[selected node] = 1  
    for all adj_nodes of selected node :  
        If visitedArray[node] != 1:  
            DFS(adj_nodes of selected node)  
}
```

Time Complexity :  $O(V) + O(2E) = O(V+E)$

Space Complexity :  $O(V)$

### 5. DFS Code in C++ : Followed by Pseudocode

### 6. BFS Code in C++ : Followed by Pseudocode