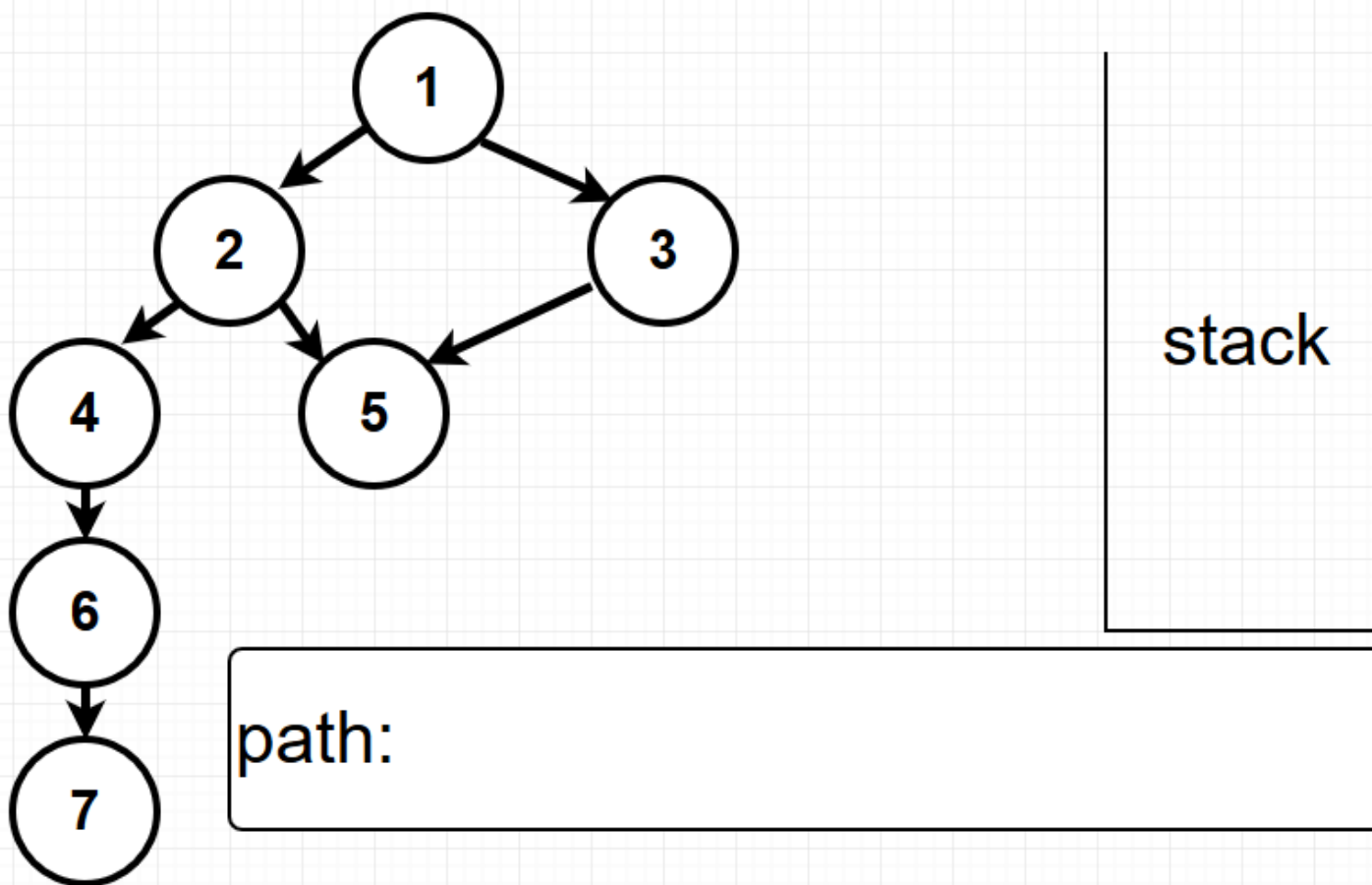


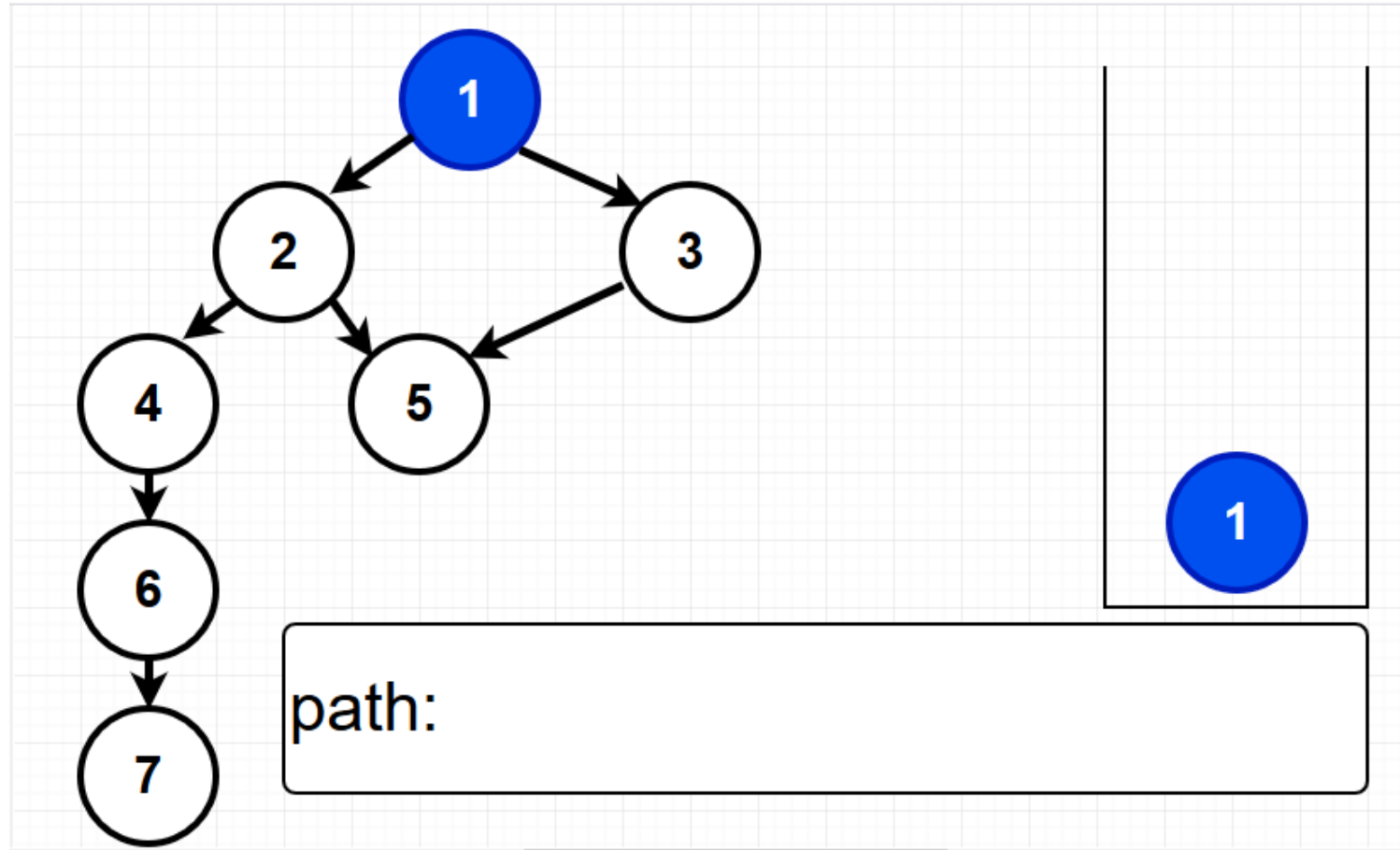
Depth-First Search

Prepared by: *Jasneem Selim*

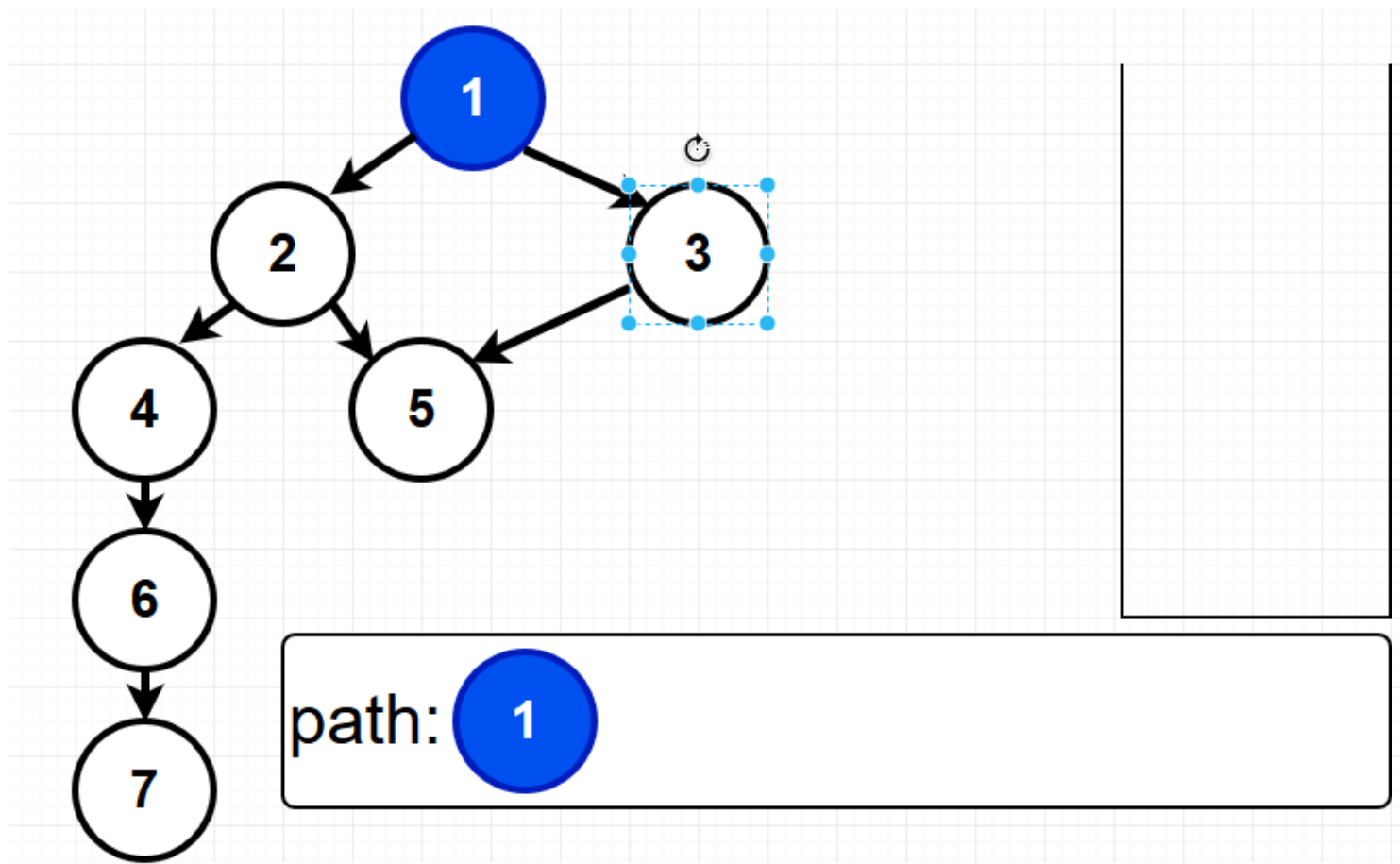
Depth-First Search



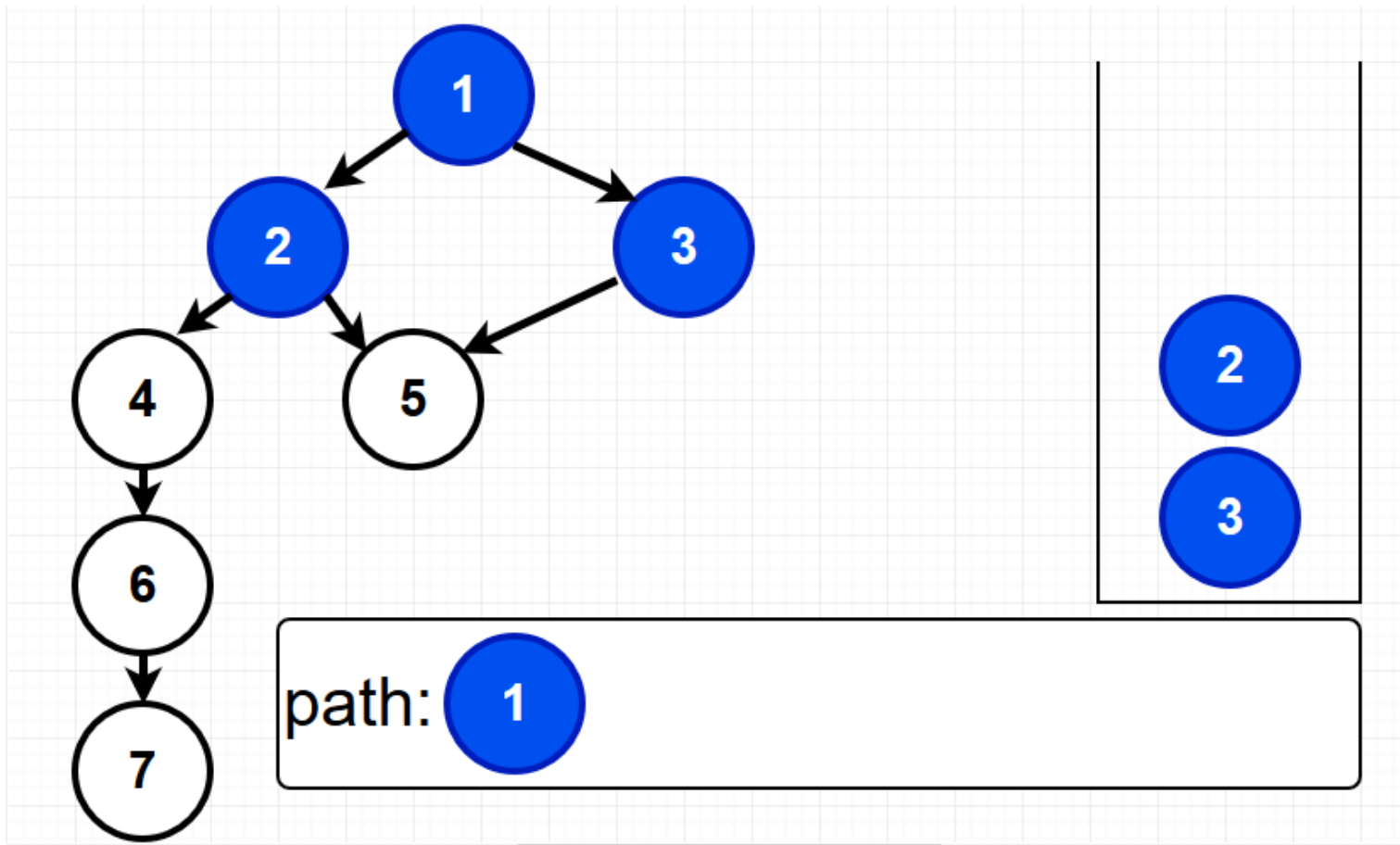
Depth-First Search



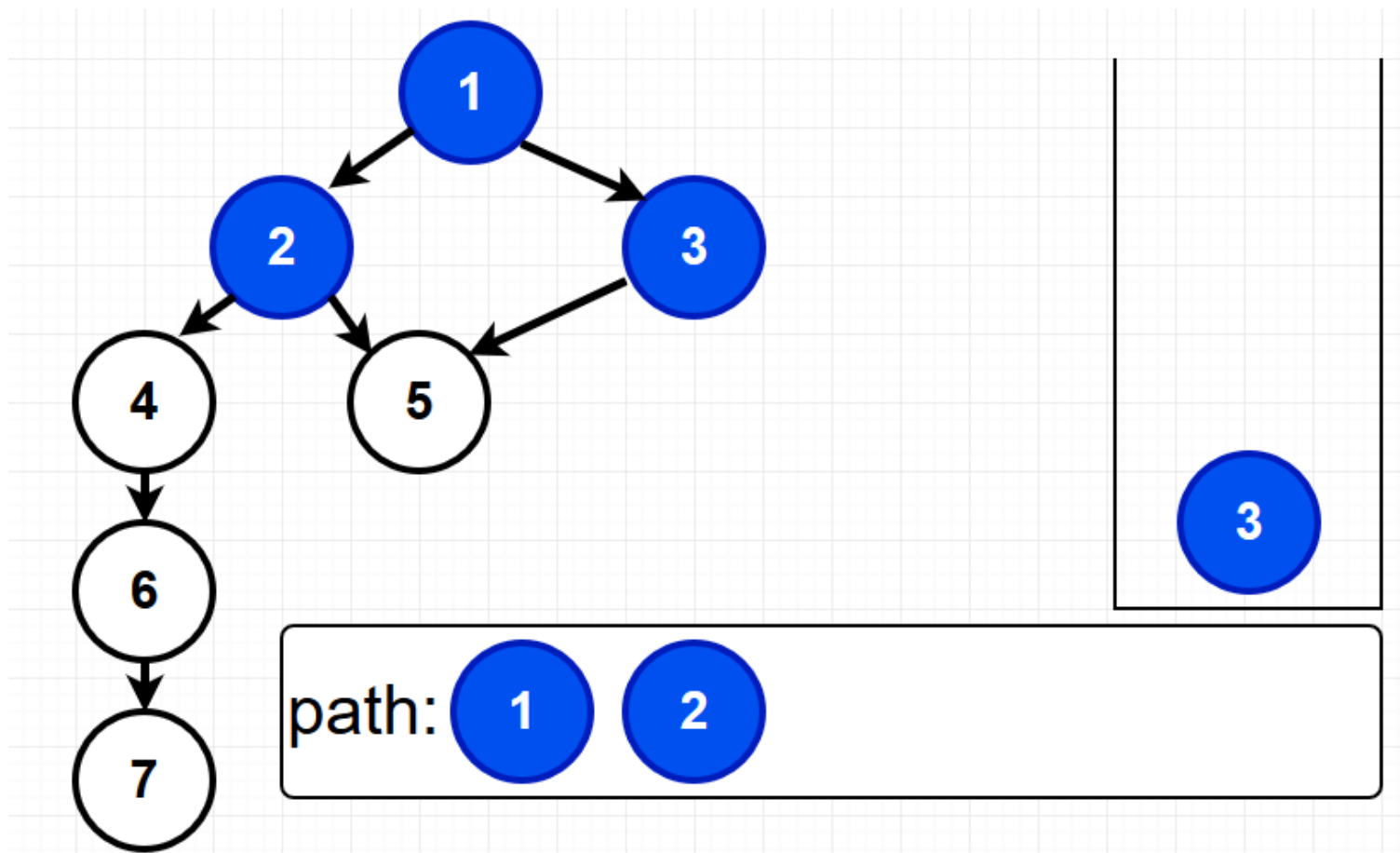
Depth-First Search



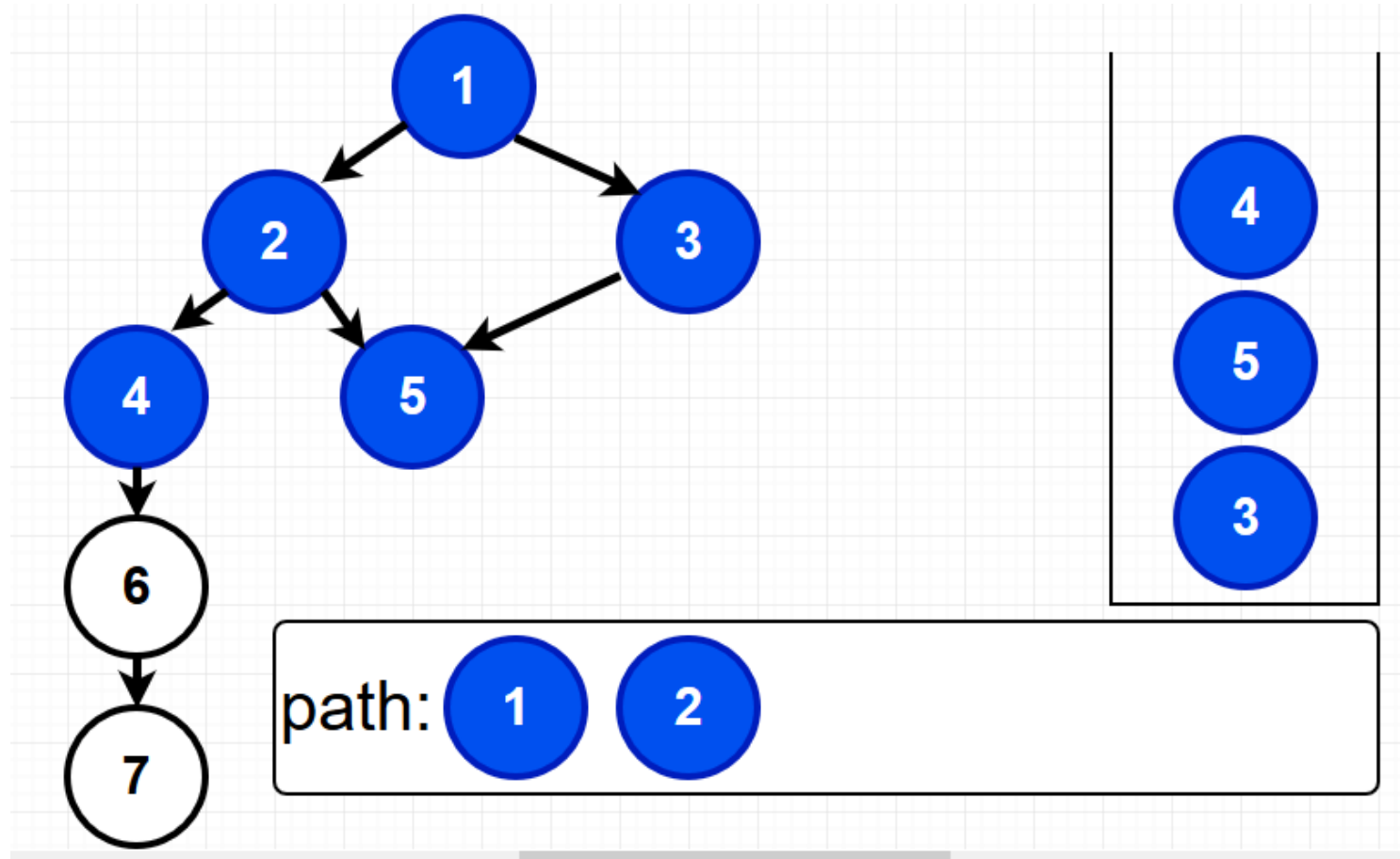
Depth-First Search



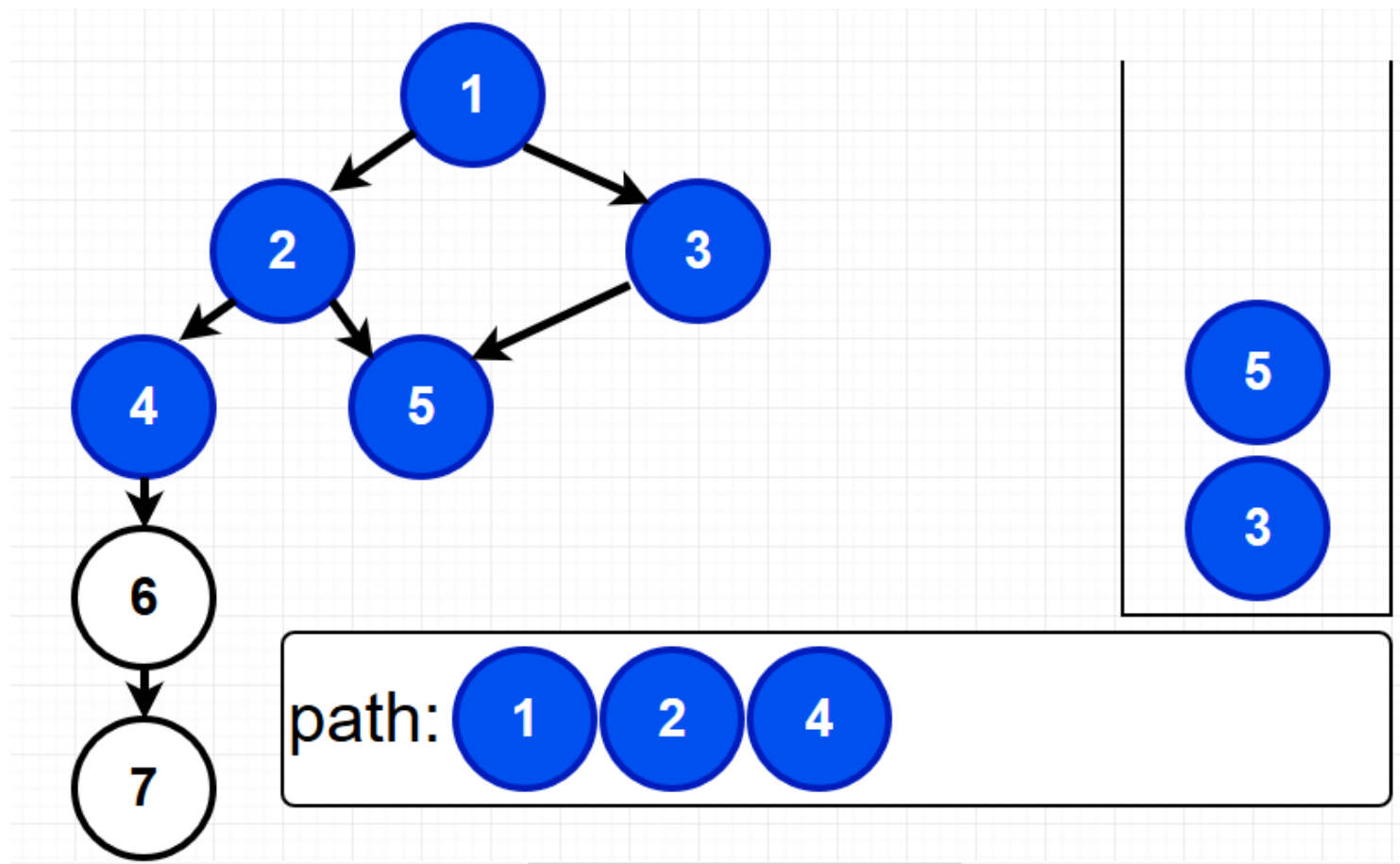
Depth-First Search



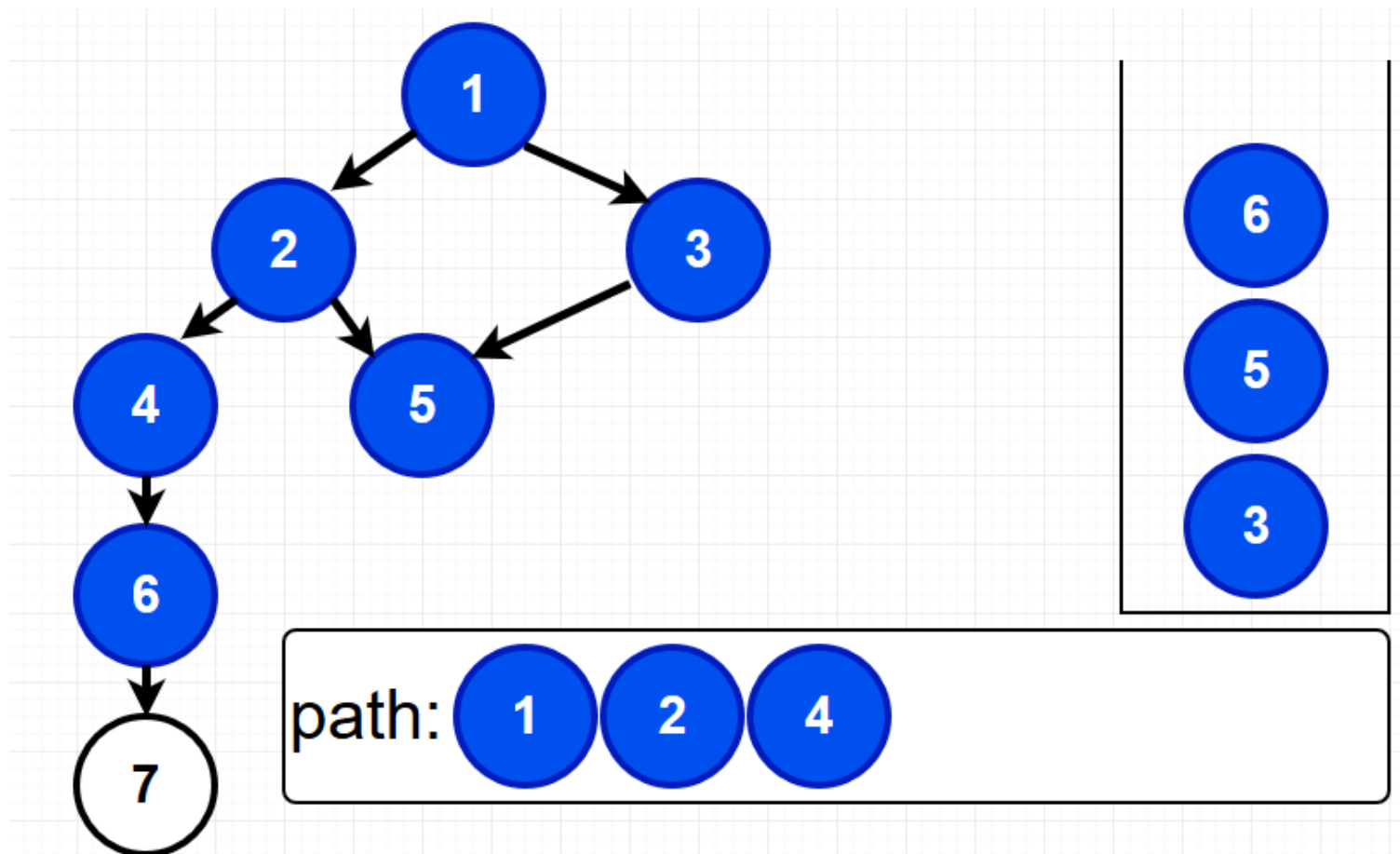
Depth-First Search



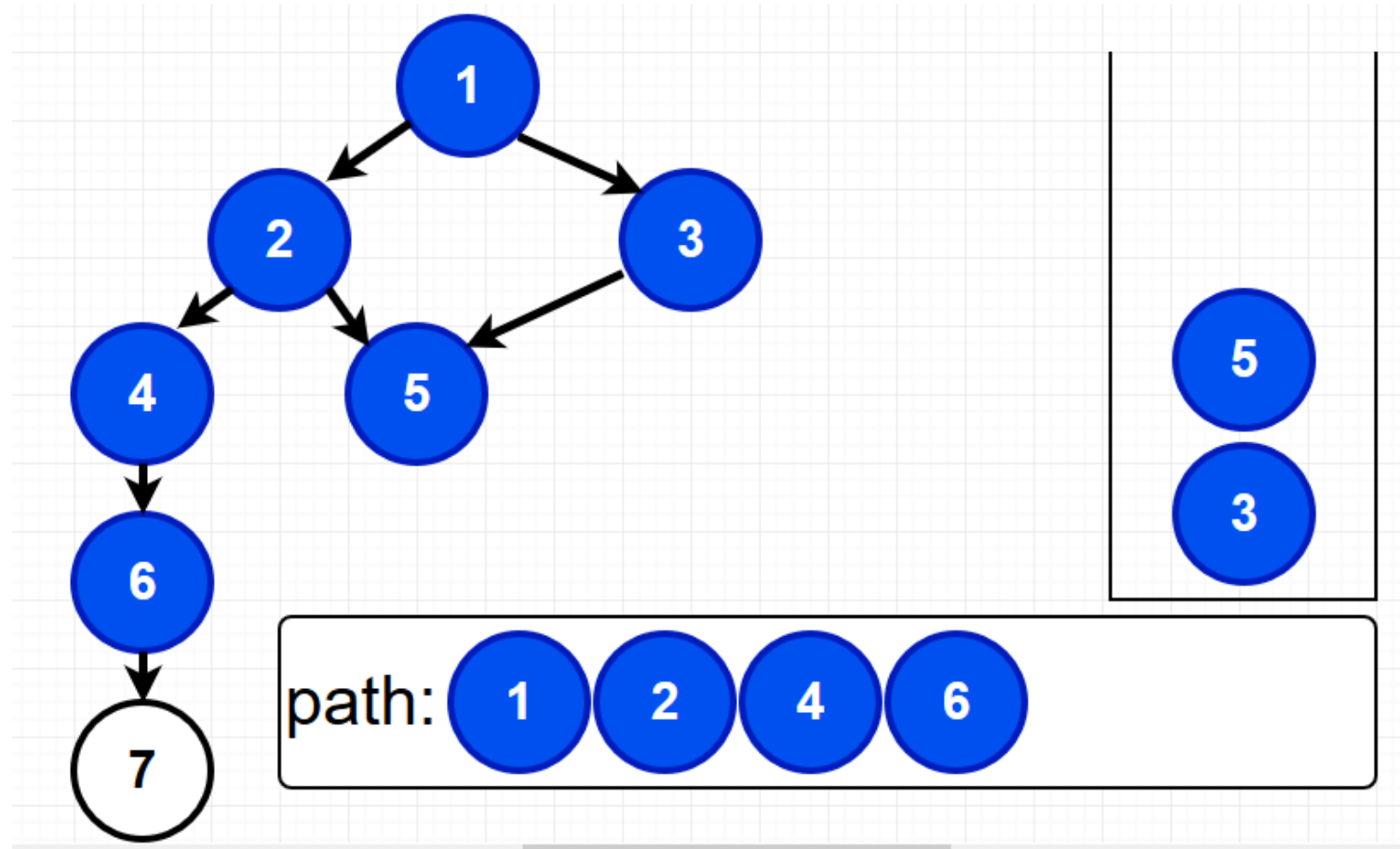
Depth-First Search



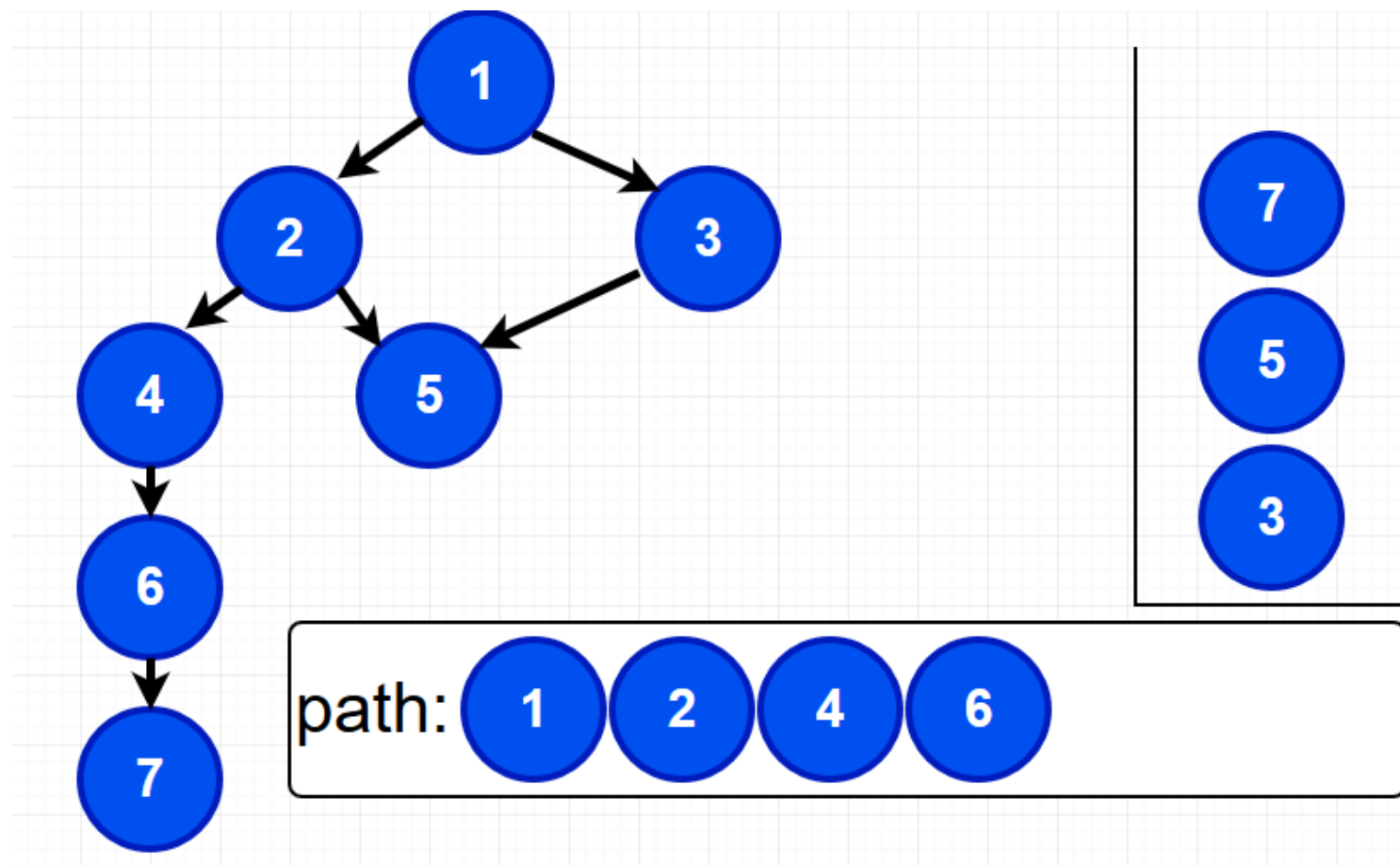
Depth-First Search



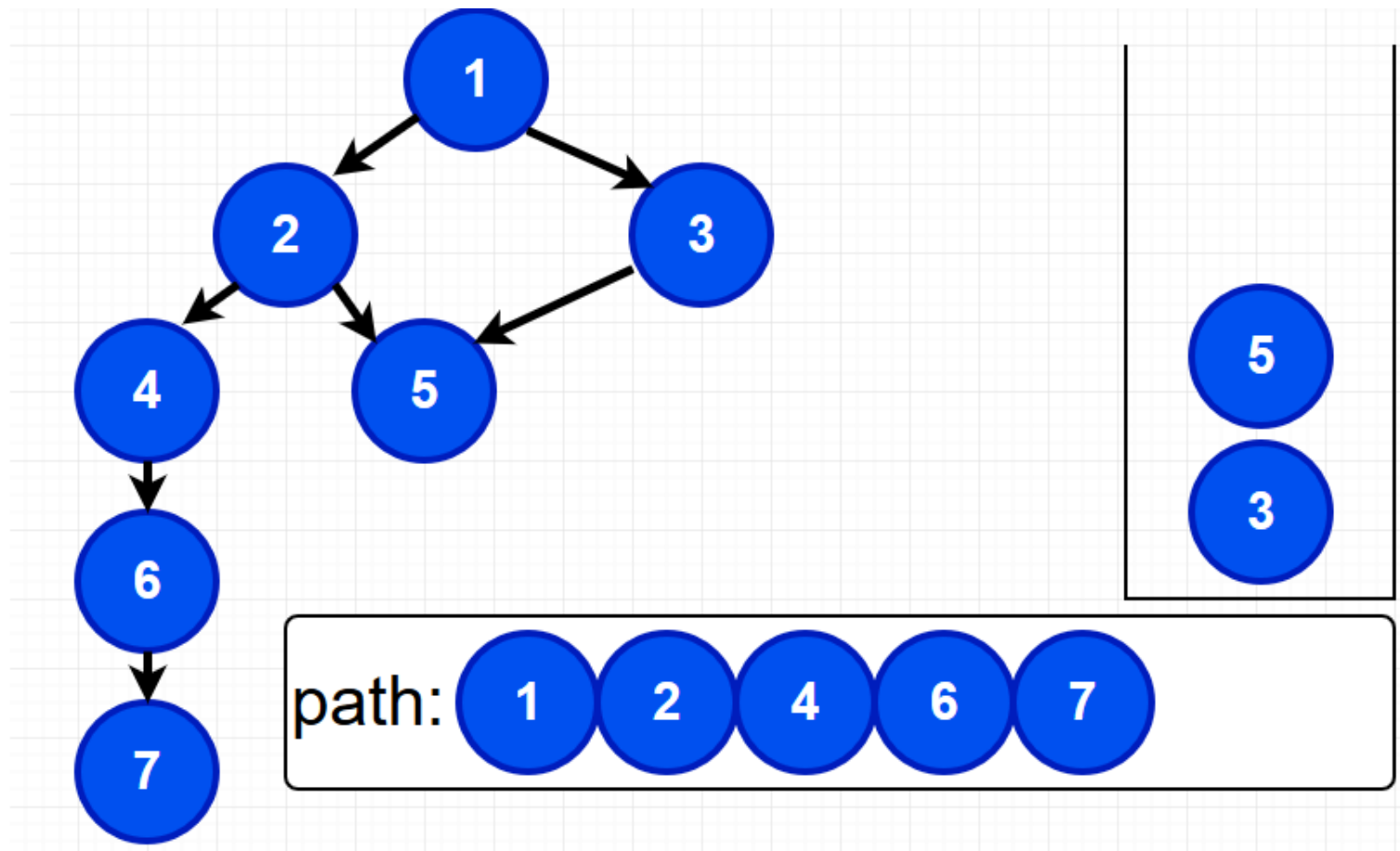
Depth-First Search



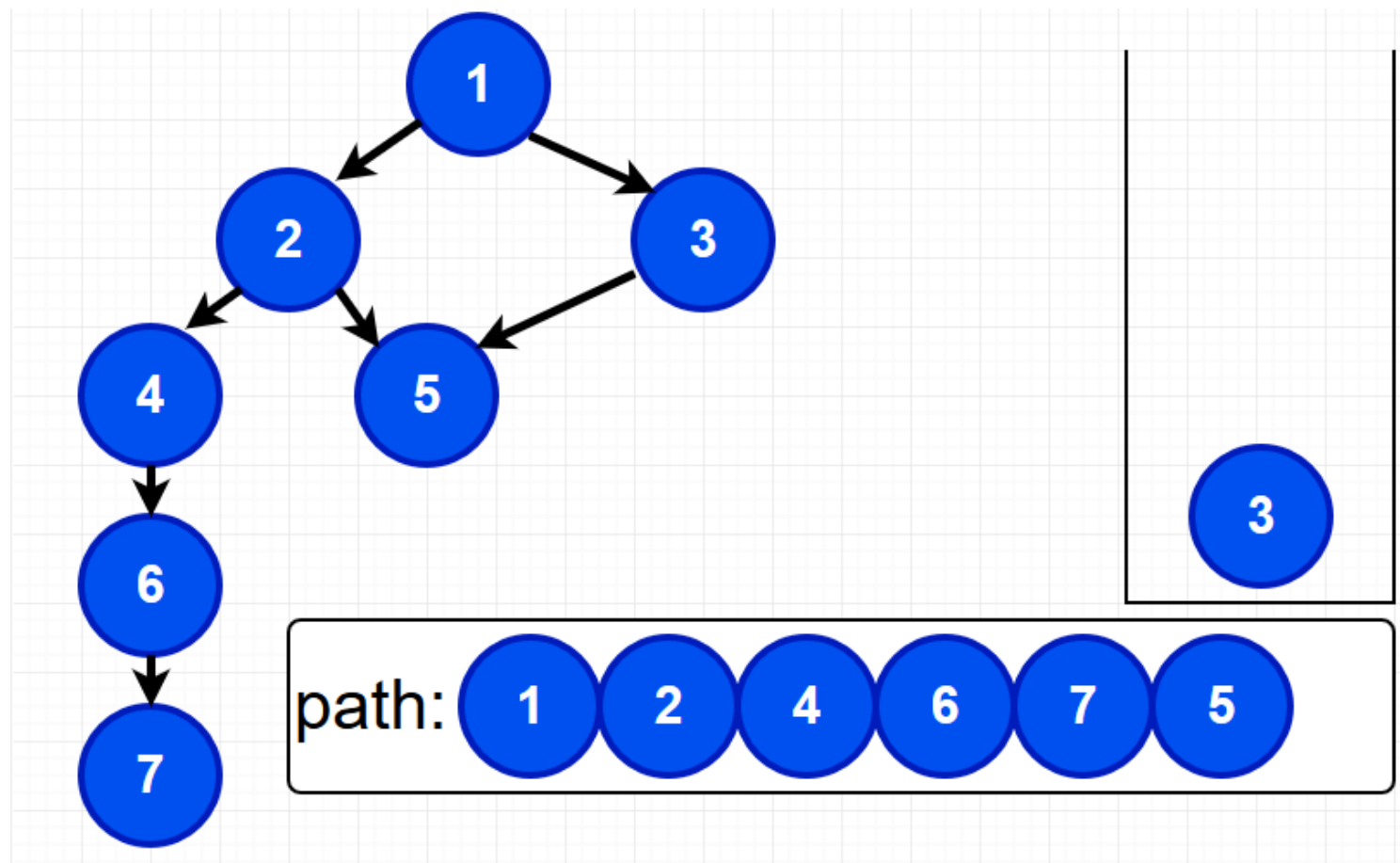
Depth-First Search



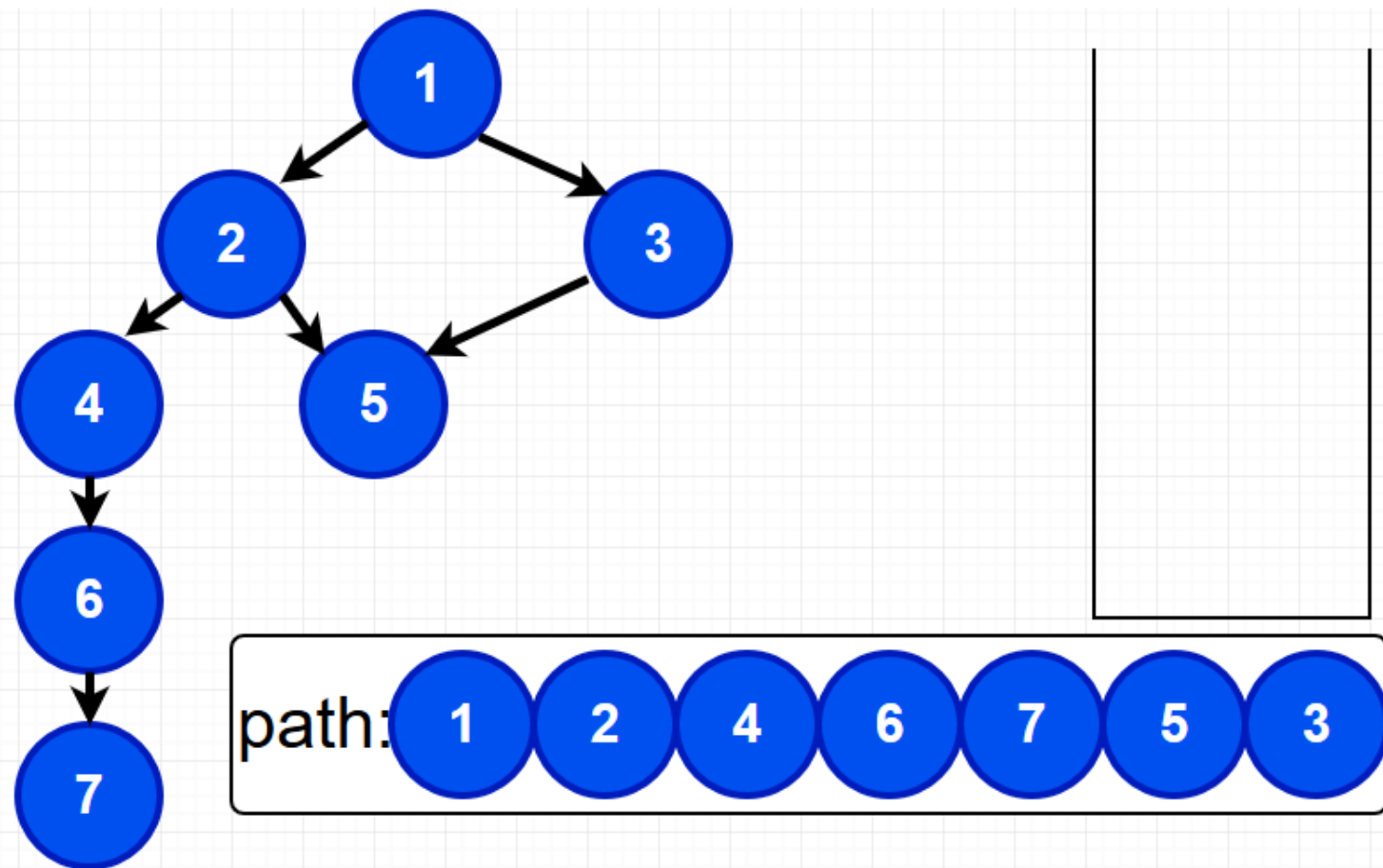
Depth-First Search



Depth-First Search



Depth-First Search



Depth-First Search

```
def depthFirstSearch(graph, start):  
    stack, path = [start], []  
    while stack:  
        vertex = stack.pop()  
        if vertex in path:  
            continue  
        path.append(vertex)  
        for child in reversed(graph[vertex]):  
            stack.append(child)  
  
    return path  
  
input_graph = {1: [2, 3], 2: [4, 5],  
               3: [5], 4: [6], 5: [6],  
               6: [7], 7: []}  
  
print(depthFirstSearch(input_graph, 1))
```