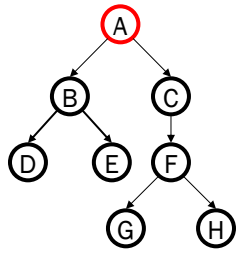


DFS with a stack, Example: trees



```
DFS2(Node start) {  
  initialize stack s to hold start  
  mark start as visited  
  while(s is not empty) {  
    next = s.pop() // and "process"  
    for each node u adjacent to next  
      if(u is not marked)  
        mark u and push onto s  
  }  
}
```

Order processed:

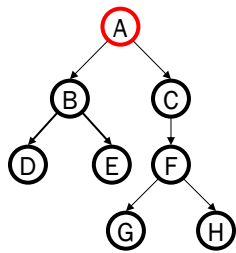
- A different but perfectly fine traversal

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BFS with a queue, Example: trees



```
BFS(Node start) {  
  initialize queue q to hold start  
  mark start as visited  
  while(q is not empty) {  
    next = q.dequeue() // and "process"  
    for each node u adjacent to next  
      if(u is not marked)  
        mark u and enqueue onto q  
  }  
}
```

Order processed:

- A "level-order" traversal

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