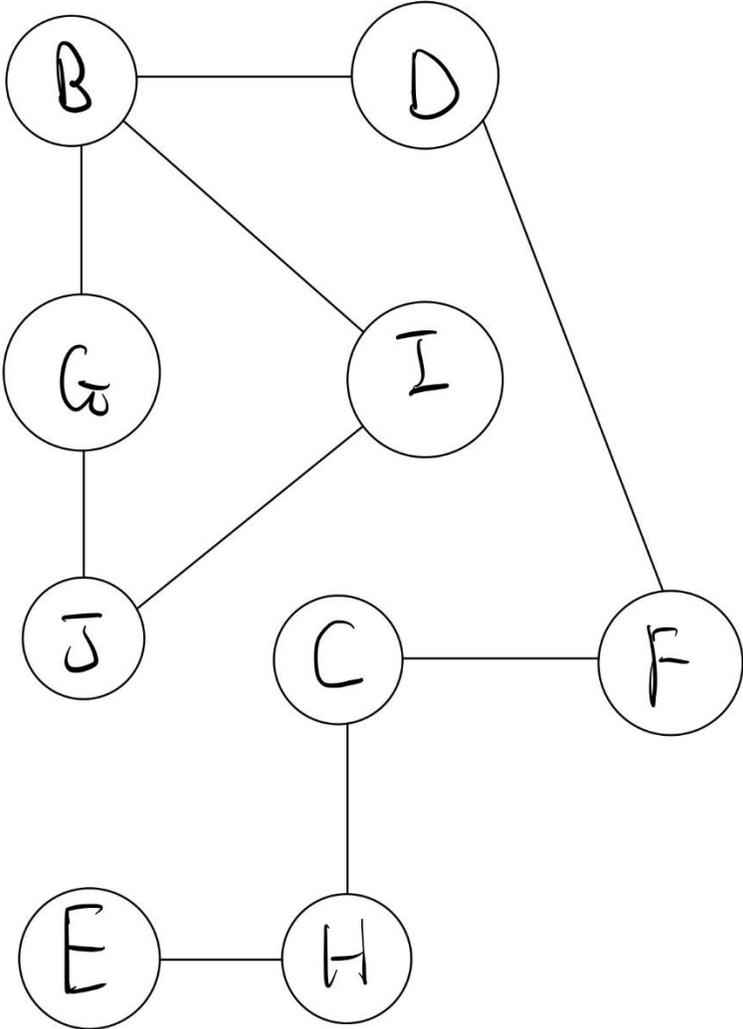


Graph 1



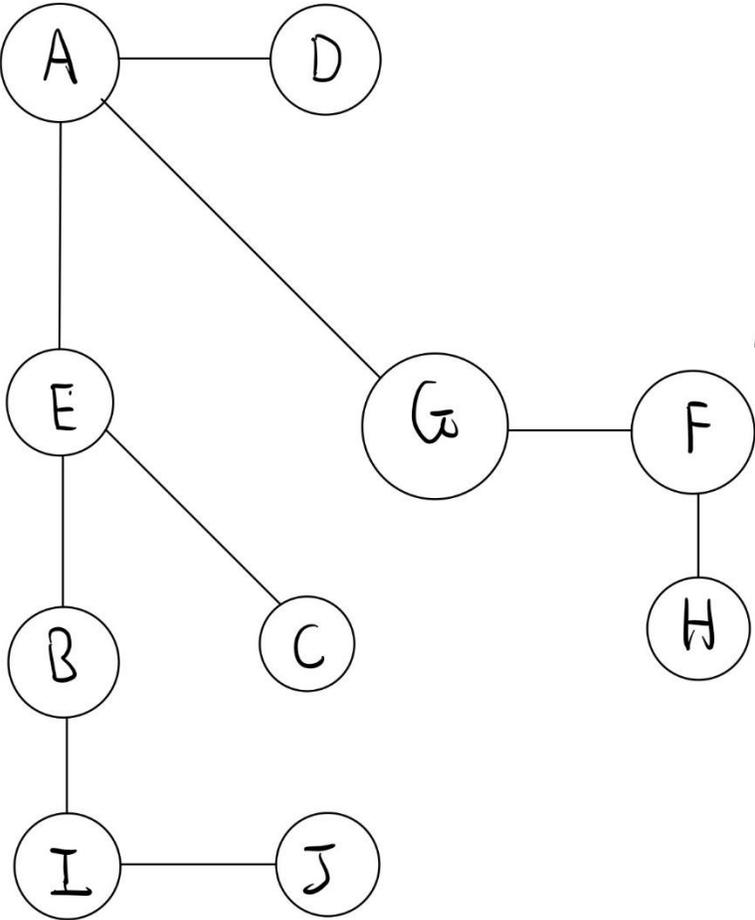
## BFS

1. Frontier Queue = A  
Discovered = A  
Visiting = A
2. Frontier Queue = D, G, E  
Discovered = A, D, G, E  
Visiting = A
3. Frontier Queue = G, E  
Discovered = A, D, G, E  
Visiting = D
4. Frontier Queue = E, F  
Discovered = A, D, G, E, F  
Visiting = G
5. Frontier Queue = F, B, C  
Discovered = A, D, G, E, F, B, C  
Visiting = E
6. Frontier Queue = B, C, H  
Discovered = A, D, G, E, F, B, C, H  
Visiting = F
7. Frontier Queue = C, H, I  
Discovered = A, D, G, E, F, B, C, H, I  
Visiting = B
8. Frontier Queue = H, I  
Discovered = A, D, G, E, F, B, C, H, I  
Visiting = C
9. Frontier Queue = I  
Discovered = A, D, G, E, F, B, C, H, I  
Visiting = H
10. Frontier Queue = J  
Discovered = A, D, G, E, F, B, C, H, I, J  
Visiting = I
11. Frontier Queue = (Empty)  
Discovered = A, D, G, E, F, B, C, H, I, J  
Visiting = J
12. Frontier Queue = (Empty)  
Discovered = A, D, G, E, F, B, C, H, I, J  
Visiting = (Done)

## DFS

1. Visiting = A  
Discovered = A
2. Visiting = E  
Discovered = A, E
3. Visiting = B  
Discovered = A, E, B
4. Visiting = I  
Discovered = A, E, B, I
5. Visiting = J  
Discovered = A, E, B, I, J  
**Reached a last vertex**  
**Backtracking**
  - I (No Adjacent)
  - B (No Adjacent)
  - E (Has Adjacent)
6. Visiting = C  
Discovered = A, E, B, I, J, C  
**Reached Last vertex**  
**Backtracking**
  - E (No Adjacent)
  - A (Back to start changing to new path)
7. Visiting = G  
Discovered = A, E, B, I, J, C, G
8. Visiting = F  
Discovered = A, E, B, I, J, C, G, F
9. Visiting = H  
Discovered = A, E, B, I, J, C, G, F, H  
**Reached Last vertex**  
**Backtracking**
  - F (No Adjacent)
  - G (No Adjacent)
  - A (Back to Start changing to new path)
10. Visiting = D  
Discovered = A, E, B, I, J, C, G, F, H, D

# Graph 2



## BFS

1. Frontier Queue = I  
Discovered = I  
Visiting = I
2. Frontier Queue = J, B  
Discovered = I, J, B  
Visiting = I
3. Frontier Queue = B, G  
Discovered = I, J, B, G  
Visiting = G
4. Frontier Queue = G, D  
Discovered = I, J, B, G, D  
Visiting = B
5. Frontier Queue = D  
Discovered = I, J, B, G, D  
Visiting = G
6. Frontier Queue = F  
Discovered = I, J, B, G, D, F  
Visiting = D
7. Frontier Queue = C  
Discovered = I, J, B, G, D, F, C  
Visiting = F
8. Frontier Queue = H  
Discovered = I, J, B, G, D, F, C, H  
Visiting = C
9. Frontier Queue = E  
Discovered = I, J, B, G, D, F, C, H, E  
Visiting = H
10. Frontier Queue = (Empty)  
Discovered = I, J, B, G, D, F, C, H, E  
Visiting = E

**No more Vertex BFS done.**

## DFS

1. Visiting = G  
Discovered = G
2. Visiting = J  
Discovered = G, J
3. Visiting = I  
Discovered = G, J, I
4. Visiting = B  
Discovered = G, J, I, B
5. Visiting = D  
Discovered = G, J, I, B, D
6. Visiting = F  
Discovered = G, J, I, B, D, F
7. Visiting = C  
Discovered = G, J, I, B, D, F, C
8. Visiting = H  
Discovered = G, J, I, B, D, F, C, H
9. Visiting = E  
Discovered = G, J, I, B, D, F, C, H, E

**Reached Last Vertex**

**Backtracking**

- **H (No Adjacent)**
- **C (No Adjacent)**
- **F (No Adjacent)**
- **D (No Adjacent)**
- **B (No Adjacent)**
- **I (No Adjacent)**
- **J (No Adjacent)**
- **G (Back to Start)**

**G has no Adjacent Node that has not been travelled**

**(Done)**