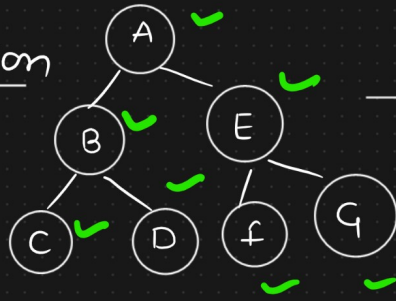


Depth first Traversal

1) Exploration

2) visit



→ A B C D E f G

↳ Preorder traversal

↳ Root
↳ left
↳ Right

Storage of Data (Graph)
 ↳ Adjacency List
 ↳ Adjacency Matrix *



Adjacency List (Linked List)

$$\left\{ \begin{array}{l} A \xrightarrow{1} B \\ B \xrightarrow{3} C, A, D \\ C \xrightarrow{1} B \\ D \xrightarrow{1} B \end{array} \right.$$

↳ $O(E)$

sum of Degree = $2E$
 $= 6 = 2 \times 3$

$V = n$

Adjacency Matrix

0 → No edge
 1 → edge
 (4×4) → $(V \times V)$

	A	B	C	D
A	0	1	0	0
B	1	0	1	1
C	0	1	0	0
D	0	1	0	0

↳ $O(V^2) = O(n^2)$