Example : Depth - First Search

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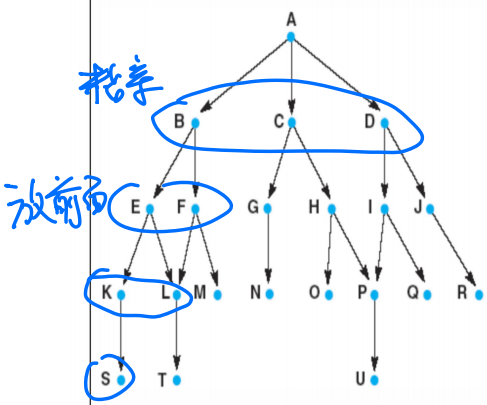

Fig 3.13 The Graph.

Trace of depth_first_search on figure 3.13

1. open = [A];	closed = [ ]
2. open = [B,C,D];	closed = [A]
3. open = [E,F,C,D];	closed = [B,A]
4. open = [K,L,F,C,D];	closed = [E,B,A]
5. open = [S,L,F,C,D];	closed = [K,E,B,A]
6. open = [L,F,C,D];	closed = [S,K,E,B,A]
7. open = [T,F,C,D];	closed = [L,S,K,E,B,A]
8. open = [F,C,D];	closed = [T,L,S,K,E,B,A]
9. open = [M,C,D],	L is already on closed; closed = [F,T,L,S,K,E,B,A]
10. open = [C,D];	closed = [M,F,T,L,S,K,E,B,A]

and so on until either U is discovered or open = [ ]

An alternative implementation of *depth-first search*

Solution

	Open	close
1	A	
2	B C D 粘亲弟数	A
3	E F C D	B A
4	K L F C D	E B A