

17-04-25

* BRANCH AND BOUND

Initial arrangement of tiles:

Initial state =

1	2	3	4
5	6	7	8
9	10		12
13	14	11	15

down

Exploring State
↓

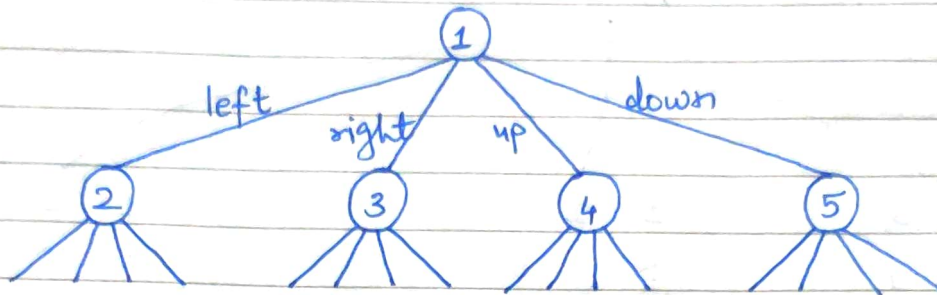
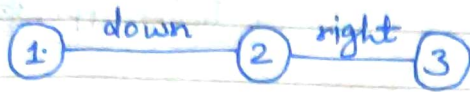
1	2	3	4
5	6	7	8
9	10	11	12
13	14		15

Goal arrangement of tiles:

Final state =

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	

right



Min. = 2

Max. = 4

• FIFO:

② 3 4 5 6 7 8

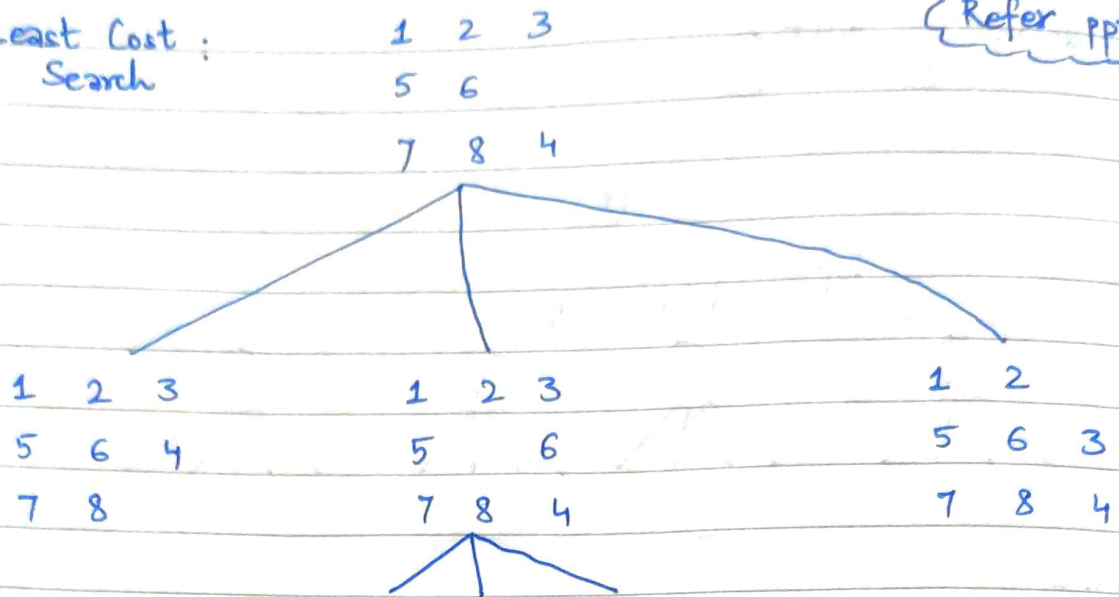
• LIFO:

⑤
4
3
2

- Live node: Node can contribute addition of nodes i.e. its sub-nodes
- Exploring node: Node is currently contributing to the addition of nodes.
- Dead node: All the sub-nodes have been explored.

Refer ppt

• Least Cost Search



Rank func $c(x) = f(x) + g(x)$ is used to determine the next state.

~~Limit func $\hat{g}(x)$ is used $\hat{g}(x) \leq g(x)$ is used to determine addition of subnodes.~~
cost of $c(x) = f(x) + g(x)$

I.S.

Soln i.e. F.S.

