Name :- Ghanshaym Vasantrao sanap

Class : BE-IT

Roll No :- 5456

Subject : IS Lab

DOP	DOA	Remark	Sign.

Alpha = Beta pruning :-

Alpha - beta pruning = Alpha beta Pruning a Traditional version of the min max algo it is an optimized technique for the minimum algo.

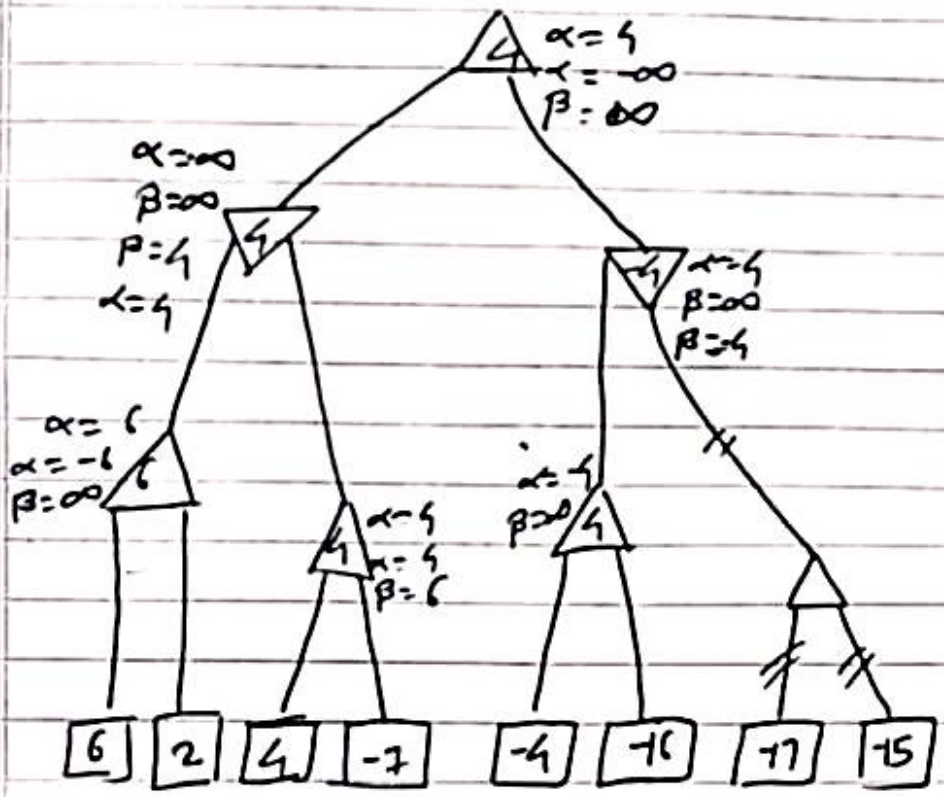
- Alpha (α) = The best (highest value)
  = Initial value is Beta is $+\infty$
- Beta (β) = The best (highest Value)
  = Initial Value Value is Beta is $+\infty$
- Rules & Condition.

1) The max players will only update the value of alpha

2) The main player will only update the value of β

3) we will only pass the alpha, beta values to the childe nodes

4) Node values will be passed to upper nods include of Value of alpha and beta.



1) $\alpha(-\infty, 6) = 6$
$\alpha(-\infty, 4) = 2$
$\alpha(6, 2) = 6$
— max (Bottom left)

2) $\beta(\infty, 6) = 6$ — min (left)

3) $\alpha(-\infty, 4) = 4$
$\alpha(-\infty, -7) = -7$
$\alpha(4, -7) = 4$
— max (Bottom right) (left node)

4) $\alpha(4, -4)$ — Top (max)

5) $\beta(6, 4) = 4$ — min (right)

6) $\beta(\infty, 4) = 4$ — max (Bottom right), (right node)

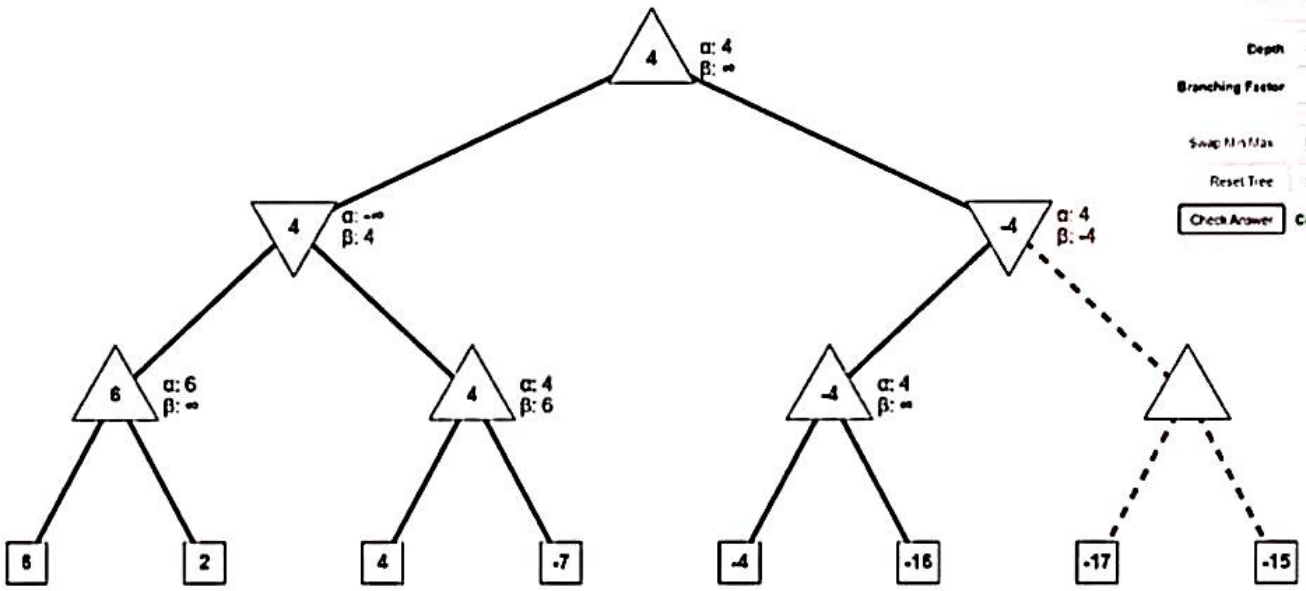
7) $\alpha(4,-4) = 4$
$\alpha(4,-16) = 4$
$\alpha(-4,-16) = -4$

8) $\beta(\infty, -16) = -16$ — min (child-weight)
$\alpha = 4$
$\beta = -4$

$\alpha \geq \beta$ ∴ Do the next node is Pruned.

9) $\alpha = 4$ max
$\beta = \infty$

$\alpha = (4, -4) = 4$ Do cut!



Start Animation

Depth - +

Branching Factor +

Swap Min/Max Regenerate Tree

Reset Tree Show Solution

Check Answer Correct!

Nodes are pruned when