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Alpha - Beta pruning :

Alpha-beta pruning = Alpha beta pruning is a modified version of the min max algo. It is an optimization technique for the minmax algo.

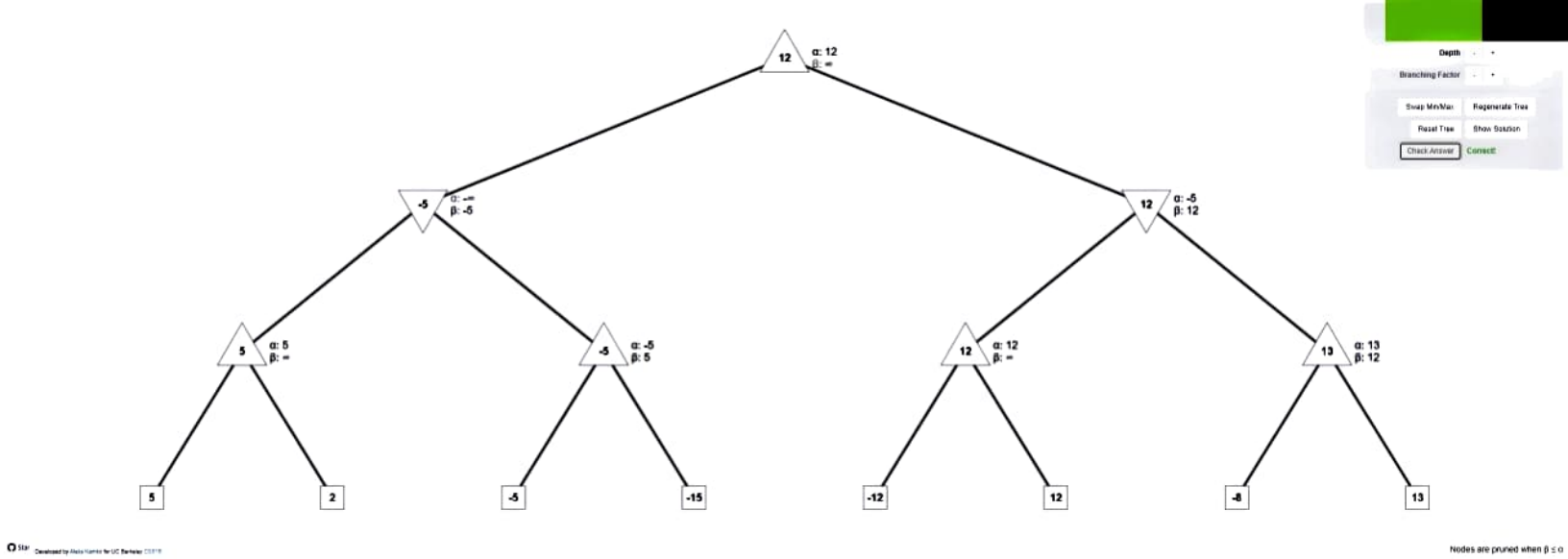
Alpha (α) = The best (highest value)
Initial value of apha is $-\infty$.

Beta (β) = The best (highest value)
Initial value of Beta is $+\infty$.

Rules and conditions :
1) The max player will only update the value of alpha.
2) The min player will only update the value of Beta.
3) We will only pass the alpha, beta values to the child nodes.
4) Node values will be passed to upper nodes instead of values of alpha and beta.

Condition to prune : $a \geq b$ or $b \leq a$

When alpha is greater than or equal to beta



Depth
Branching Factor
Swap Min/Max
Regenerate Tree
Reset Tree
Show Solution
Check Answer
Correct!
12
α: 12
β: ∞
-5
α: -∞
β: -5
12
α: -5
β: 12
5
α: 5
β: ∞
-5
α: -5
β: 5
12
α: 12
β: ∞
13
α: 13
β: 12
5
2
-5
-15
-12
12
-8
13
Nodes are pruned when β ≤ α