import math

MAX , MIN = 1000 , - 1000

def alphabeta ( depth , idx , maximize , vals , alpha , beta ):

if depth == int ( math . log ( len ( vals ), 2 )): # checking if leaf node

return values [ idx ]

if maximize :

best = MIN

for i in range ( 0 , 2 ):

val = alphabeta ( depth + 1 , idx \* 2 + i , False , vals ,

alpha , beta ) # calling next recursion

best = max ( best , val )

if best < beta :

alpha = max ( alpha , best ) # updating alpha value

return best

else :

best = MAX

for i in range ( 0 , 2 ):

val = alphabeta ( depth + 1 , idx \* 2 + i , True , vals , alpha ,

beta ) # calling next recursion

best = min ( best , val )

if best > alpha :

beta = min ( beta , best ) # updating beta

return best

if \_\_name\_\_ == " \_\_main\_\_ ":

values = [ 3 , 5 , 6 , 9 , 1 , 2 , 0 , - 1 ]

print ( f "Result = { alphabeta ( 0 , 0 , True , values , MIN , MAX ) } " )

git remote add origin https://github.com/ssreelakshme/a-star.gitgit branch -M maingit push -u origin main