```
Minimax Algorithm
Ex: NO: 5
Date:
Aim:
   To implement minimax Algorithm problem using
 python.
                : ( napoly , state ) who , lab
source code:
                        = JAKO MIN
from math import int our intinity
from random import choice
import platform [] [] state [] [] wastrold traduit
from 05 import system
 HUMAN S Stote [] [] Stote [ o] []
 comp = +1
 [state[0]], state[1][0], state[1][0], [s]
[0,0,0], [][]] shote [] [] shote []
  def evaluate (state):
 "IT wins (State, COMP):
        Score = +1
```

```
ely vins (State, Human):
     Score = -1
 else
voeturn scorp it rough xanivin transfini or
def wins (state, player):
  win _ state = [
                                : shoo . wayos
  [ state [0] [0], state [0]
 [state[i][o], state[i][i], state[i][2]]
 [state[2][0], state[2][i], state[2]
 [State[o][o], State[i][o], State[2][o]
 State [0] [1] State [1] [1] State [2] [1
  [state[o][2], state[i][2], state[2][2]
  [state [o] [o], state[i][i], state[2][2]]
 if [ player, player, player] in win_state:
 return TRUE
                    of which I stake court
```

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else:
     return false (will see ! " In thing
 det game _ over (state):
   return wins (state, HUMAN) or wins (state,
                  [Wood & comp)
def empty -cells (state):
        cells = []( ) ( ) ( ) todage
for x, row in enumerate (state):
for y, cell in enumerate (row):
    if cell = 0: 1000 - 2000 0 = = 1 jub di
     cells, append ([x,y])
                                  Metory
 beturn cells
 def valid _ move (x, y):
  "b [x,y] in empty _cells (board):
                                 FR: NO: 6
  return TRUE
 else:
order exercises earl plines a golden of
det render (state, c-choice, h-choice):
   chars = }
-1: h-choice,

is newsons?

c-choice,

dy. manning.
               text file and sine it of four
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str-line = paint ("In + str-line) selate motor for sow in state: (catalog) savo . some and for cell in somanich, state? I sain noutes symbol = chars [cell] paint (f' 1 & symbol 3 intend Los) James de paint (*1 In + str_line) = 2/100 det ai-turn (c-choice, h-choice) depth = len (empty-cells (board)) it depth = = 0 or game _over (board): de xeturn return redury cells clean () : (HXX) svavi billov foto