	Exp no: 5
	Date
	minmax algorithm
5	Aim
	To implement MINMAX Algorithm problem using by
	dour le code
10	from math import inf as infinity
	import platform:
	Import time 1
	From ios import system HUMAN = -1
15	Comp = +1
	board = [
	[0,0,0]
	[0,0,0]
20	$\frac{1}{2}\left[\frac{1}{2}\left(0,0;0\right)\right]$
	def evaluate (State).
	if wins (State, HUMAN).
	2(89) = 71
	elif wins (State, COMP).
25	Sione = -1
	else
	Slose = 0
	octur Slove
	def wins (State Noun).
	def wins (State, plage):-

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[State [o][o] St. o. +	
[State COCO], State COJEIJ, State COJEIJ,	7
[State[O[O], State [I][I], State[I][I], [State[O[O], State[I][I], State[I][I]],	
[State (2][6], State (2][1], State (1][2]), [State (0][6], State (2][1], State (2][2]),	
[State Collar, State Collir, State Collir],	Layer age.
[State (D[2], State [][], State [][2]], [State [D][2], State [][2],	
[State Co](2], State (a)(2), State (2)(2)], [State (a)(a), State (2)(2), State (2)(2)]	Witness
[8tate (6) 60], state [TID, State [2][2]],	
[State[2][0], State[1][1], State[2][2]], If [plane Plane Plane];	nei de la la grande
of C player, player, player in win State:	
reduction for the second secon	***************************************
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elx orturn talk	* Waldersoning
det game over (state).	
return wing (state, Humans or wins	
(Slate Cou.	D'
all empty all state)	ر·
for x, now in enumerate (state):	
for y, Cell in enumeratel viow).	
if Call -= 0.	
return Cells	
de l'alad mone (c	-
def valid more (x,y).	Note a series
if (x, y J. in empty cells (board).	
elu.	and an exercise
retur falle	
del set mans (x, ii, Dlayer).	- majabaga
. If valid novel x, y, player).	
bojend [x][y] = Player	
board [x][y] = player	
elle:	Brighag, a bright de s t
Octurn Todge	

Doto
def minmax (state, depth, player).
If player = Comp.
best = C1 = t - wfinity)
The state of the s
best that timbletal
If depth == 0 or game one (State).
If depth == 0 or game over (state). Store = evaluate (state).
return C-1, -1, score
for Cell in empty Cell (State).
et 1 - Pull of Colled
real [F][y]=0
Store[o], Store[i] = x, y
of player == comp. 17 Score (2] > best[2].
best = Score # max value
elu elu
if Some Co. L. hart [2].
best - 3 core of min value
return best
def chap. U:
O) - name = Platform Bucken () (march
if windows in Os name: System ('cls')
System ('cls')
els
els System ("Clean")
def render (stede, C. Choice, b. Choice).
-1: h. Choice,
1: C. Choice,
2
Sto line = 1
310 Miles

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And the second s	Ogla :				
18 wins (hoard, Human)	And the second section of the section of				
(lean ()	The first consisting is not as the first consistency and the constraints of the constrain				
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Clean (p) Print (P) It amon tune (h chorce 3)") render (booked, (colories Los)					
render (bodied, Colorico, hochoice) Print ("You WIN") alife wing (hoard, long):					
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print [f · computer tun!	1 (-choice of J.)				
have, Clien	eo h Over Servi				
Print (" Your Laux")	And the second s				
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Frank (bourd: (Che print ("DRAW")	oile, hi Choice)				
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main ()	uh_				
Que					
Output:					
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Chooln: O					
Early ? trats of real	; У				
HUMAN COJ					
1 1 1	1 1 101				
1 1 1	1 1×1 1				
1 1 1					
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use num pad (1.9): 3	Human tunCoJ				
computer turn [x]	A POST A				
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