out nater

in < los fi

To solve the N-Queens problems where the goal is to place the Nqueur on a nxn chessboard such that no two queens load [17 Fed] - 1 attack each other.

Algorithm,

The solve Mouth (though, what, n) = - true : return true boord[f7[will:0

Stepon Staut

8tepo2: Create a non chestocard with all cells set too, Representing no queuns placed.

Stepos: Ensure no queen is the same now, upper allagonal or

Stepon: Try placing a queen for each row of current column of the safe using is safe

stepos: Move to the next column of placing a queen works, eve backtack by removing queen so

Stepo6: If queen are placed in all columns return sucross

Stepor: Display the board. (1) DM SWDE

Stopos: If no solution exists, print solution die not-exists

Program .

enter avalua: 5

det is safe (basid, now, col, n): (0,0,0,0,1) for in range (ed): [0,1,0,0,0] if board (row) CPJ == 1: [0,0,0,1.0] roturn false [10,0,0,0,0]

for its in the (range (ray; of the); range (coli-hel): if boord [if[j] == 1:

return false wasser of sil will executed & the output to restrain successfully

def solven au bil (board, ad, n): if col >=n: return true for ? In range (h): under summer of i sales of Mourement of a non cheilleston, indred the good is to place the aurument attach each other. if solve Noutil (board, col+1, 1) == true: return true board[97 [col]:0 Stepon Stout etepos: create a non dressboard with all telle set le det some hold: mond ou buiterades if solve wanted (posed to 1) Just 1 society of solve solve to 1) institution of the solve to 1) institution of 1) institution stopen: The course of the safe wing is safe of the saf Stepos: More to the next column of 1960 youngqueen works, one backling by removinguettinnings Harris war in F (Subat Ca Entern Lame in 1) on the 1900 of 1900 of steps: Display the board. (Non salos Stopes: If no solution exist, print solution . 18 not exists enter nvalue:5 "moxpor" des 15.5 afe (roand, row, colon): (0,0,0,0,1) for 7 mange (sel): [0,1,0,0,0] [0,1,0,000] 21: 17) [word from] [0,0,0,0,17 3407 numbr for Is in the sange (rapidor)) orange (coli- bil): istered (ist;]:=12 Thus the n-queens problems program is executed & the output is verified successfully.