Connect-4 with minmax:

Introduction

The Connect-4 game is a strategic two-player board game where the objective is to align four discs in a row, column, or diagonal. This report focuses on implementing an AI opponent for the game using the Minimax algorithm. The AI aims to determine optimal moves by simulating all possible game scenarios to a specified depth and evaluating the board state for each scenario.

Objective

The goal of this project is to develop an AI capable of playing Connect-4 intelligently. By leveraging the Minimax algorithm, the AI evaluates potential moves and predicts the best course of action to maximize its chances of winning while minimizing the opponent's opportunities.

Algorithm Description

1. Minimax Algorithm: The Minimax algorithm is a recursive decision-making approach used in two-player games. It assumes both players will play optimally and alternates between maximizing and minimizing players:

- **Maximizing Player:** Aims to maximize the score.

- **Minimizing Player:** Aims to minimize the score.

The AI recursively simulates moves up to a predefined depth, computes the board's heuristic value, and backtracks to choose the optimal move.

Three different variations of the minmax algorithm, minmax with pruning, minmax without pruning, and expected minmax.

Sample runs:

Minmax with depth = 3:

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 65

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

 Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 65

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

 Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

 Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 47

 Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

 Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 56

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 59

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 59

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 62

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 62

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 59

 Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 65

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 65

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 65

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 65

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 47

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 47

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Time taken: 0.3822 seconds

Nodes expanded: 400

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 32

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 45

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 41

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 41

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 35

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 41

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 41

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 38

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 48

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 38

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 41

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 44

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 38

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 41

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 56

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 32

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 38

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 38

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 29

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 41

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 44

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 38

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 47

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 29

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 32

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 35

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 38

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 41

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 47

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 41

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 41

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 32

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 38

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 38

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 44

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 47

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 44

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 50

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 47

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 32

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 38

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 47

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 38

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 62

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 32

  Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

  Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

  Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 35

  Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

  Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

  Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

  Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 56

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 62

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 62

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 62

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

    Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

    Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

    Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

    Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 59

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 62

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 56

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

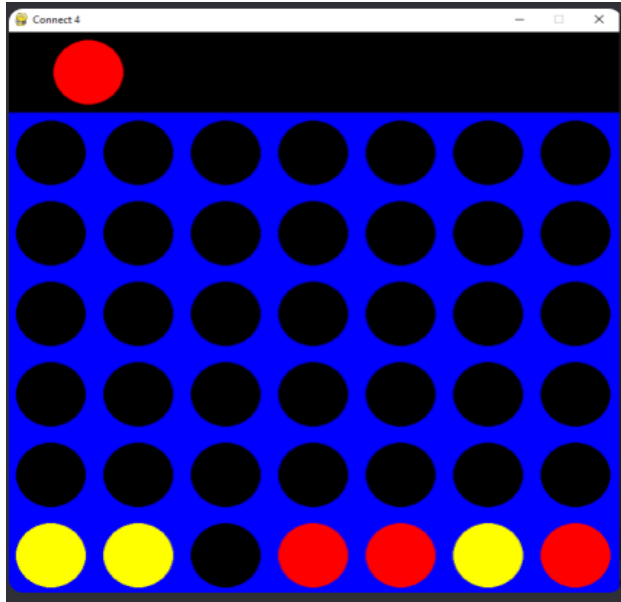------------------------------

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 29

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 35

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 38

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 44

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 41

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 50

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 56

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 32

Max (Chip placed at column = 0): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 1): Node at depth = 2: Heuristic Value: 38

Max (Chip placed at column = 2): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 3): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 4): Node at depth = 2: Heuristic Value: 35

Max (Chip placed at column = 5): Node at depth = 2: Heuristic Value: 53

Max (Chip placed at column = 6): Node at depth = 2: Heuristic Value: 35

Time taken: 0.4359 seconds

Nodes expanded: 400

Minmax with depth = 2:

First turn :

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

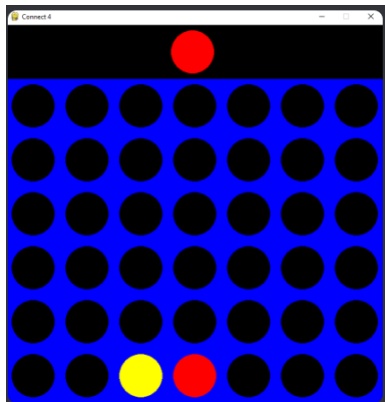
Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0668 seconds

Nodes expanded: 57

second turn :

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 62

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53
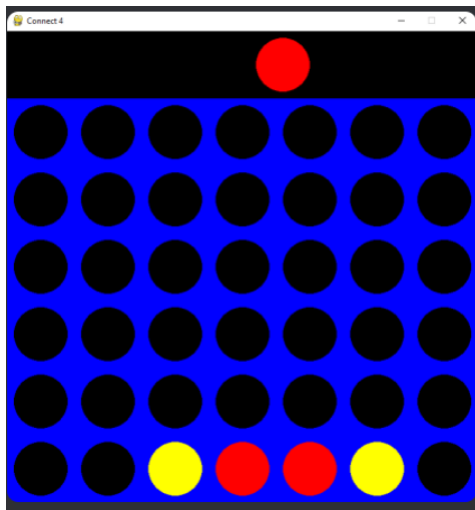

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 62

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 59

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 59

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0688 seconds

Nodes expanded: 57

Third turn :

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 47

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 47

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 62

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 56

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 62

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 59

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 47

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 56

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 59

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0688 seconds

Nodes expanded: 57

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 44

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 44

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 44

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 44

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 44

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 44

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

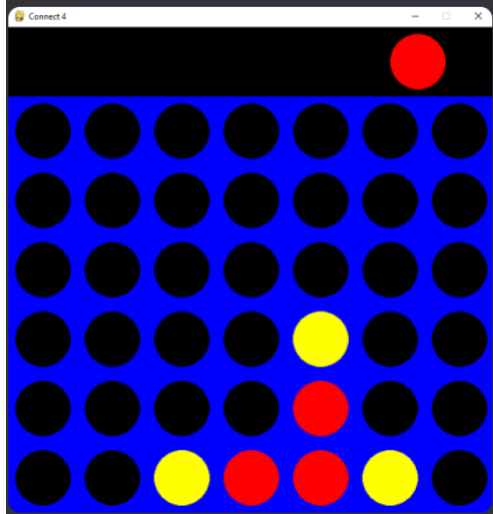Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 59

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 47

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 59

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 44

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 44

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 44

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Time taken: 0.0658 seconds

Nodes expanded: 57

Minmax with pruning with depth = 2:

First turn:

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

 Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

 Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50

 Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0568 seconds

Nodes expanded: 57

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 47

 Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

 Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

 Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Time taken: 0.0649 seconds

Nodes expanded: 57

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

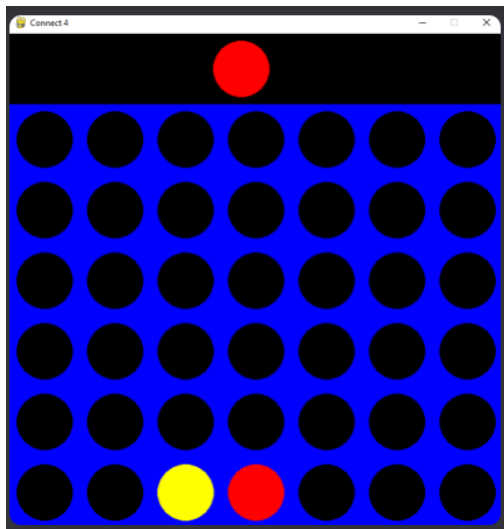Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0568 seconds

Nodes expanded: 57

Second turn:

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0568 seconds

Nodes expanded: 57

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 47

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 47

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 62

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 56

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 62

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 59

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 47

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 56

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 59

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53
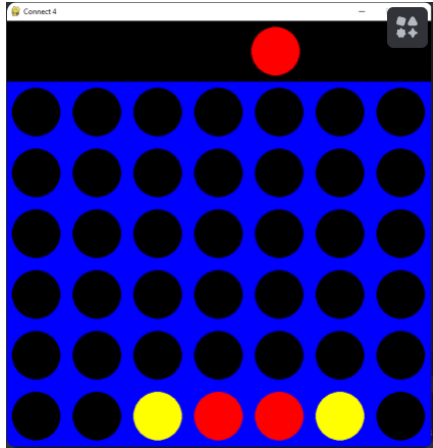
Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50

Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0658 seconds

Nodes expanded: 57

Expected Minmax with depth = 2:

First turn :

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50
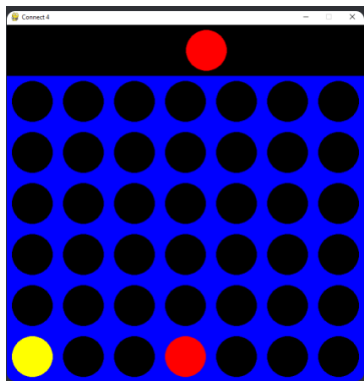
  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0966 seconds

Nodes expanded: 57

Second turn :

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 47

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 47

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 47

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 47

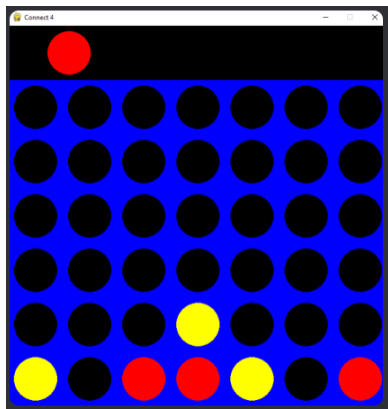Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Time taken: 0.1017 seconds

Nodes expanded: 57

Third turn :

Game Tree for column: 0

Max (Chip placed at column = 0): Node at depth = 0: Heuristic Value: 53

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 59

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Game Tree for column: 1

Max (Chip placed at column = 1): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 56

Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 53

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 2

Max (Chip placed at column = 2): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 59

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 62

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 59

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 3

Max (Chip placed at column = 3): Node at depth = 0: Heuristic Value: 53

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 59

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 62

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 65

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 56

Game Tree for column: 4

Max (Chip placed at column = 4): Node at depth = 0: Heuristic Value: 53

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 59

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 65

Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 56

Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 56

Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 56

Game Tree for column: 5

Max (Chip placed at column = 5): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 50

Game Tree for column: 6

Max (Chip placed at column = 6): Node at depth = 0: Heuristic Value: 50

  Min (Chip placed at column = 0): Node at depth = 1: Heuristic Value: 53

  Min (Chip placed at column = 1): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 2): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 3): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 4): Node at depth = 1: Heuristic Value: 56

  Min (Chip placed at column = 5): Node at depth = 1: Heuristic Value: 50

  Min (Chip placed at column = 6): Node at depth = 1: Heuristic Value: 53

Time taken: 0.0987 seconds   Nodes expanded: 57