

CENG 3511

Artificial Intelligence

Project 2: Solving CSPs

Deadline: Oct 28, 2019 11:59:59 pm

In this project, you are expected to solve the following puzzles using a CSP solver. Although [Google OR Tools](#) is highly recommended, you are free to use any CSP solver.

- [Kakuros](#)
- [Futoshiki](#)

Kakuros

Figure below illustrates a simple Kakuros puzzle, solution of the puzzle, input file and the output file.

	22	18	7
20			
19			
8			

	22	18	7
20	9	7	4
19	8	9	2
8	5	2	1

input

22, 18, 7

20, 19, 8

output

x, 22, 18, 7

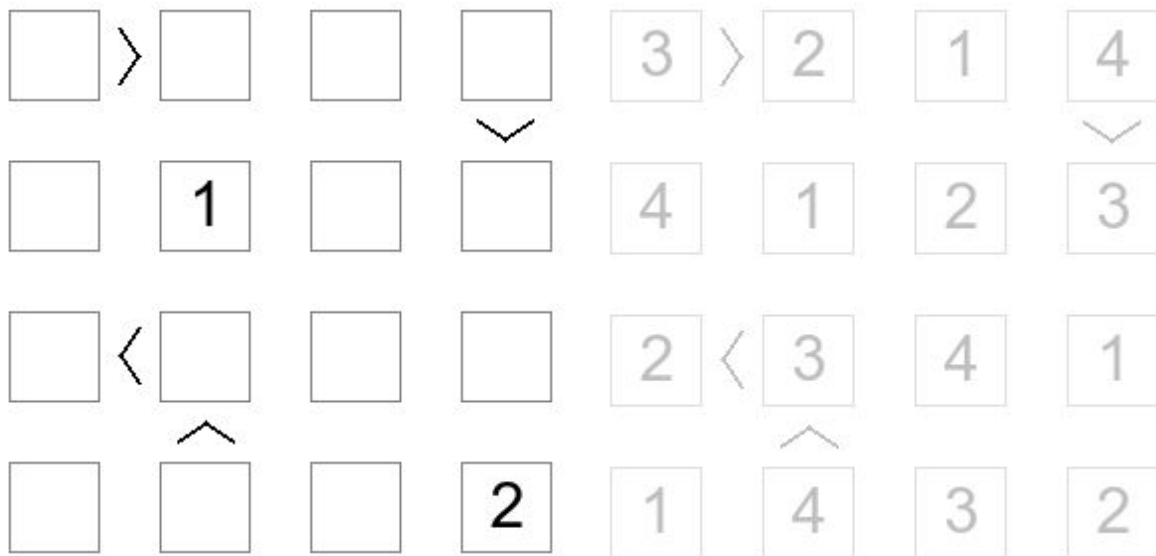
20, 9, 7, 4

19, 8, 9, 2

8, 5, 2, 1

Futoshiki

Figure below illustrates a simple Futoshiki puzzle, solution of the puzzle, input file and the output file.



input

B2, 1
D4, 2
A1, A2
A4, B4
C2, C1
D2, D1

output

3, 2, 1, 4
4, 1, 2, 3
2, 3, 4, 1
1, 4, 3, 2

Submission

In this project you are going to deliver 2 source files and 2 input files. Your programs should generate output as text files:

- Source files: kakuros.py and futoshiki.py
- Input files: kakuro_input.txt and futoshiki_input.txt
- **Output files: kakuro_output.txt and futoshiki_output.txt**
- **README.txt:** Instructions for running the program.

You should commit these files under ceng3511/p2/ folder in your git account until deadline.

NOTE: Your project will not be graded if you don't follow the submission rules.