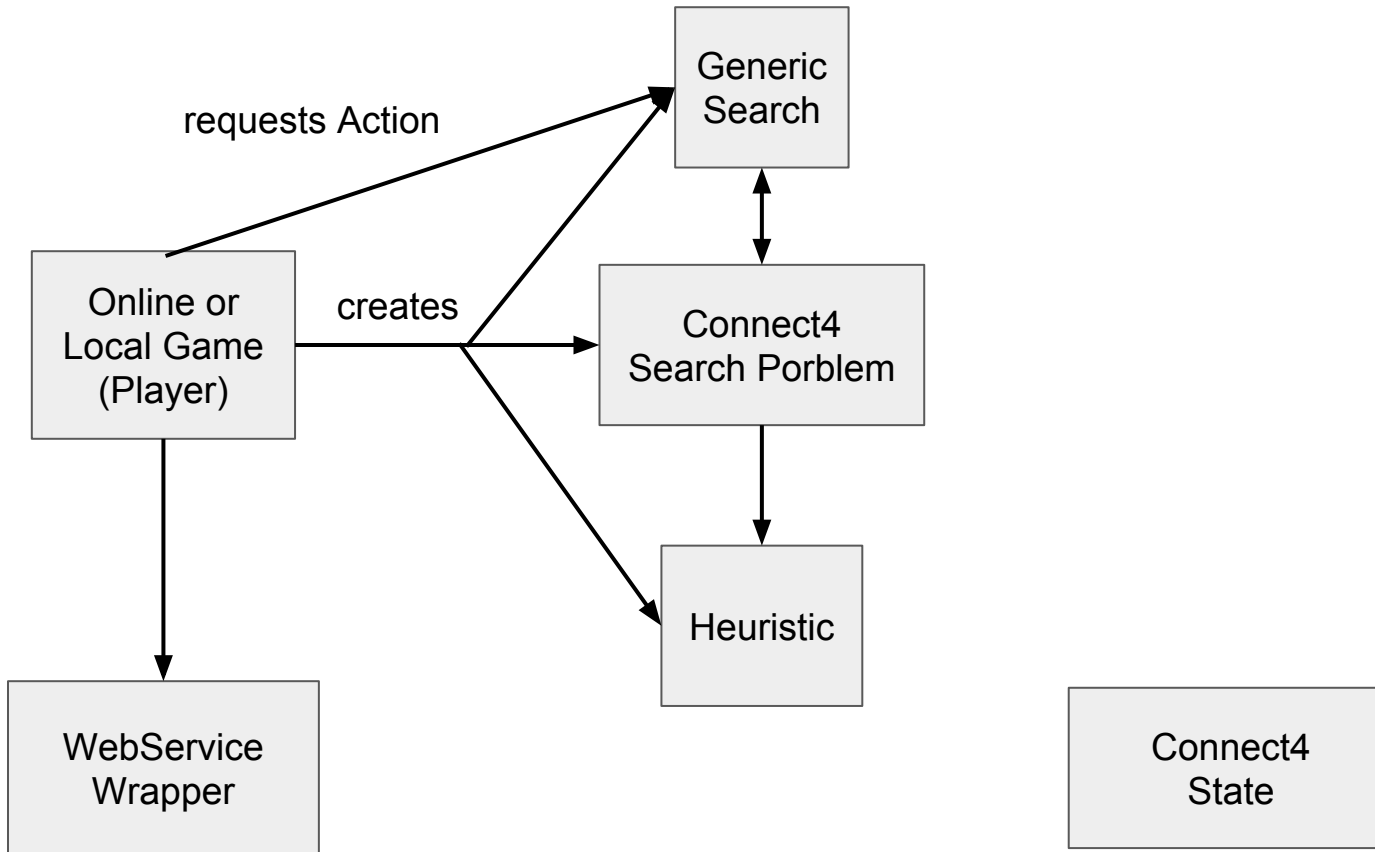


Connect Four

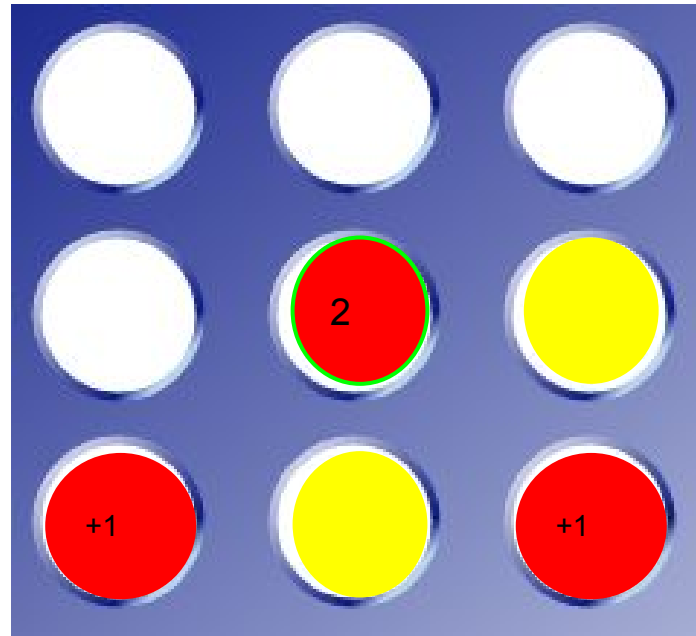
Group 8: Adrian Dieter, Adrian Lamothe

Structure



Basic Heuristic

Idea: Sum of the number of neighbours of each field.



More Advanced Heuristic

Idea: Check every empty field if it can be turned into:

- Four in a row
- 3 in a row which can be turned in 4 with one move
- 3 in a row which need more than one move for 4
- 2 in a row (can be turned into 4)
- 1 in a row (can be turned into 4)

and count the occurrence of features.

Count attacks and threats,
subtract threats from attacks,
then apply weights.

Results

Depth 7, different difficulty

	Basic	Advanced	Expert
Basic	A	A	A
Advanced	B	A	A
Expert	B	B	Draw

Expert vs Expert, different depth

	0	1	2	3	4	5	6	7
0	a	b	b	b	b	b	b	—
1	a	b	b	b	b	b	b	b
2	a	a	b	b	b	a	b	b
3	a	—	a	b	—	—	b	—
4	a	b	—	a	a	b	a	a
5	—	b	a	a	b	b	a	b
6	a	a	a	a	a	a	b	b
7	a	a	a	—	a	a	a	—

Red always begins.