Heuristic_1 test A

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs Random	Result: 18 to 2
Match 2: ID_Improved vs MM_Null	Result: 16 to 4
Match 3: ID_Improved vs MM_Open	Result: 14 to 6
Match 4: ID_Improved vs MM_Improved	Result: 15 to 5
Match 5: ID_Improved vs AB_Null	Result: 16 to 4
Match 6: ID_Improved vs AB_Open	Result: 11 to 9
Match 7: ID_Improved vs AB_Improved	Result: 15 to 5

Results:

ID Improved 75.00%

Evaluating: Student

Playing Matches:

Match 1: Student vs Random Result: 18 to 2 Match 2: Student vs MM_Null Result: 19 to 1

Match 3: Student vs MM_Open Result: 12 to 8
Match 4: Student vs MM_Improved Result: 13 to 7

Match 5: Student vs AB_Null Result: 16 to 4

Match 6: Student vs AB_Open Result: 12 to 8
Match 7: Student vs AB_Improved Result: 11 to 9

Results:

Student 72.14%

Heuristic_2 test A

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs	Random	Result: 19 to 1
Match 2: ID_Improved vs	MM_Null	Result: 14 to 6
Match 3: ID_Improved vs	MM_Open	Result: 9 to 11
Match 4: ID_Improved vs I	MM_Improved	Result: 10 to 10
Match 5: ID_Improved vs	AB_Null	Result: 14 to 6
Match 6: ID_Improved vs	AB_Open	Result: 10 to 10
Match 7: ID_Improved vs /	AB_Improved	Result: 12 to 8

Results:

ID_Improved 62.86%

Playing Matches:

Match 1: Student vs Random Result: 18 to 2

tournament.py:100: UserWarning: One or more agents lost a match this round due to timeout. The get_move() function must return before time_left() reaches 0 ms. You will need to leave some time for the function to return, and may need to increase this margin to avoid timeouts during tournament play.

warnings.warn(TIMEOUT_WARNING)

Match 2: Student vs MM_Null Result: 14 to 6

Match 3: Student vs MM_Open Result: 12 to 8
Match 4: Student vs MM_Improved Result: 12 to 8

Match 5: Student vs AB_Null Result: 15 to 5

Match 6: Student vs AB_Open Result: 12 to 8
Match 7: Student vs AB_Improved Result: 16 to 4

Heuristic_3 test A

Evaluating: ID_Improved

Playing Matches:

Match 1: ID Improved vs Random Result: 20 to 0

tournament.py:100: UserWarning: One or more agents lost a match this round due to timeout. The get_move() function must return before time_left() reaches 0 ms. You will need to leave some time for the function to return, and may need to increase this margin to avoid timeouts during tournament play.

```
warnings.warn(TIMEOUT_WARNING)
```

```
Match 2: ID_Improved vs MM_Null Result: 15 to 5
Match 3: ID_Improved vs MM_Open Result: 12 to 8
Match 4: ID_Improved vs MM_Improved Result: 5 to 15
Match 5: ID_Improved vs AB_Null Result: 13 to 7
Match 6: ID_Improved vs AB_Open Result: 13 to 7
Match 7: ID_Improved vs AB_Improved Result: 11 to 9
```

Results:

ID_Improved 63.57%

Playing Matches:

Match 1: Student vs Random Result: 18 to 2 Match 2: Student vs MM Null Result: 15 to 5

Match 3: Student vs MM_Open Result: 12 to 8
Match 4: Student vs MM_Improved Result: 8 to 12

Match 5: Student vs AB_Null Result: 16 to 4

Match 6: Student vs AB_Open Result: 13 to 7
Match 7: Student vs AB Improved Result: 12 to 8

Results:

Student 67.14%

Heuristic_4 test A

Evaluating: ID_Improved

Playing Matches:

tournament.py:100: UserWarning: One or more agents lost a match this round due to timeout. The get_move() function must return before time_left() reaches 0 ms. You will need to leave some time for the function to return, and may need to increase this margin to avoid timeouts during tournament play.

warnings.warn(TIMEOUT_WARNING)

Match 1: ID_Improved vs	Random	Result: 16 to 4
Match 2: ID_Improved vs	MM_Null	Result: 18 to 2
Match 3: ID_Improved vs	MM_Open	Result: 11 to 9
Match 4: ID_Improved vs M	IM_Improved	Result: 12 to 8
Match 5: ID_Improved vs	AB_Null	Result: 14 to 6
Match 6: ID_Improved vs	AB_Open	Result: 13 to 7
Match 7: ID_Improved vs A	.B_Improved	Result: 13 to 7

Results:

ID_Improved 69.29%

Playing Matches:

Match 1: Student vs Random Result: 17 to 3 Match 2: Student vs MM_Null Result: 18 to 2

Match 3: Student vs MM_Open Result: 11 to 9
Match 4: Student vs MM_Improved Result: 9 to 11

Match 5: Student vs AB_Null Result: 13 to 7

Match 6: Student vs AB_Open Result: 13 to 7
Match 7: Student vs AB_Improved Result: 11 to 9

Results:

Student 65.71%

Heuristic_5 test A

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs	Random	Result: 19 to 1
Match 2: ID_Improved vs	MM_Null	Result: 16 to 4
Match 3: ID_Improved vs	MM_Open	Result: 10 to 10
Match 4: ID_Improved vs N	/IM_Improved	Result: 10 to 10
Match 5: ID_Improved vs	AB_Null	Result: 12 to 8
Match 6: ID_Improved vs	AB_Open	Result: 13 to 7
Match 7: ID_Improved vs A	AB_Improved	Result: 10 to 10

Results:

ID_Improved 64.29%

Evaluating: Student

Playing Matches:

Match 1: Student vs Random Result: 19 to 1
Match 2: Student vs MM_Null Result: 17 to 3

Match 3: Student vs MM_Open Result: 13 to 7
Match 4: Student vs MM_Improved Result: 9 to 11

Match 5: Student vs AB_Null Result: 16 to 4

Match 6: Student vs AB_Open Result: 12 to 8
Match 7: Student vs AB_Improved Result: 11 to 9

Results:

Student 69.29%

Heuristic_6 test A

Evaluating: ID_Improved

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs Random Result: 20 to 0

Match 2: ID_Improved vs MM_Null	Result: 13 to 7
Match 3: ID_Improved vs MM_Open	Result: 15 to 5
Match 4: ID_Improved vs MM_Improved	Result: 11 to 9
Match 5: ID_Improved vs AB_Null	Result: 14 to 6
Match 6: ID_Improved vs AB_Open	Result: 11 to 9
Match 7: ID_Improved vs AB_Improved	Result: 13 to 7

Results:

ID_Improved 69.29%

Playing Matches:

Match 1: Student vs Random Result: 19 to 1
Match 2: Student vs MM_Null Result: 19 to 1

Match 3: Student vs MM_Open Result: 13 to 7
Match 4: Student vs MM_Improved Result: 14 to 6

Match 5: Student vs AB_Null Result: 15 to 5

Match 6: Student vs AB_Open Result: 14 to 6
Match 7: Student vs AB_Improved Result: 16 to 4

Results:

Student 78.57%

Heuristic_1 test B

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs Random	Result: 19 to 1
Match 2: ID_Improved vs MM_Null	Result: 17 to 3
Match 3: ID_Improved vs MM_Open	Result: 9 to 11
Match 4: ID_Improved vs MM_Improved	Result: 12 to 8
Match 5: ID_Improved vs AB_Null	Result: 15 to 5
Match 6: ID_Improved vs AB_Open	Result: 15 to 5
Match 7: ID_Improved vs AB_Improved	Result: 11 to 9

```
Results:
```

ID_Improved 70.00%

Evaluating: Student

Playing Matches:

Match 1: Student vs Random Result: 19 to 1
Match 2: Student vs MM_Null Result: 17 to 3

Match 3: Student vs MM_Open Result: 14 to 6 Match 4: Student vs MM_Improved Result: 13 to 7

Match 5: Student vs AB_Null Result: 13 to 7

Match 6: Student vs AB_Open Result: 11 to 9
Match 7: Student vs AB_Improved Result: 12 to 8

Results:

Student 70.71%

Heuristic_2 test B

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs Random	Result: 19 to 1
Match 2: ID_Improved vs MM_Null	Result: 14 to 6
Match 3: ID_Improved vs MM_Open	Result: 13 to 7
Match 4: ID_Improved vs MM_Improved	Result: 6 to 14
Match 5: ID_Improved vs AB_Null	Result: 17 to 3
Match 6: ID_Improved vs AB_Open	Result: 14 to 6
Match 7: ID_Improved vs AB_Improved	Result: 13 to 7

Results:

```
ID_Improved
               68.57%
******
 Evaluating: Student
*******
Playing Matches:
 Match 1: Student vs Random
                               Result: 17 to 3
 Match 2: Student vs MM Null
                               Result: 12 to 8
 Match 3: Student vs MM Open
                                     Result: 11 to 9
 Match 4: Student vs MM Improved
                                     Result: 12 to 8
 Match 5: Student vs AB Null
                               Result: 17 to 3
 Match 6: Student vs AB Open
                                     Result: 13 to 7
 Match 7: Student vs AB Improved
                                     Result: 12 to 8
Results:
Student
             67.14%
```

Heuristic_3 test B

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs Random Result: 19 to 1
Match 2: ID_Improved vs MM_Null Result: 16 to 4
Match 3: ID_Improved vs MM_Open Result: 13 to 7
Match 4: ID_Improved vs MM_Improved Result: 9 to 11
Match 5: ID_Improved vs AB_Null Result: 17 to 3
Match 6: ID_Improved vs AB_Open Result: 15 to 5
Match 7: ID_Improved vs AB_Improved Result: 11 to 9

Results:
----ID_Improved 71.43%

Evaluating: Student *******

Playing Matches:

Match 1: Student vs Random Result: 18 to 2 Match 2: Student vs MM Null Result: 18 to 2

Match 3: Student vs MM_Open Result: 9 to 11 Match 4: Student vs MM_Improved Result: 10 to 10

Match 5: Student vs AB_Null Result: 11 to 9

Match 6: Student vs AB_Open Result: 10 to 10 Match 7: Student vs AB Improved Result: 14 to 6

Results:

Student 64.29%

Heuristic_4 test B

Evaluating: ID_Improved ******

Playing Matches:

Match 1: ID_Improved vs Random	Result: 19 to 1
Match 2: ID_Improved vs MM_Null	Result: 16 to 4
Match 3: ID_Improved vs MM_Open	Result: 12 to 8
Match 4: ID_Improved vs MM_Improved	Result: 12 to 8
Match 5: ID_Improved vs AB_Null	Result: 17 to 3
Match 6: ID_Improved vs AB_Open	Result: 15 to 5
Match 7: ID_Improved vs AB_Improved	Result: 13 to 7

Results:

74.29% ID_Improved

Evaluating: Student *******

Playing Matches:

Match 1: Student vs Random Result: 20 to 0 Match 2: Student vs MM Null Result: 17 to 3

Match 3: Student vs MM_Open Result: 11 to 9
Match 4: Student vs MM_Improved Result: 12 to 8

Match 5: Student vs AB_Null Result: 19 to 1

Match 6: Student vs AB_Open Result: 13 to 7
Match 7: Student vs AB Improved Result: 12 to 8

Results:

Student 74.29%

Heuristic_5 test B

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs Random Result: 18 to 2
Match 2: ID_Improved vs MM_Null Result: 17 to 3
Match 3: ID_Improved vs MM_Open Result: 12 to 8
Match 4: ID_Improved vs MM_Improved Result: 9 to 11
Match 5: ID_Improved vs AB_Null Result: 15 to 5
Match 6: ID_Improved vs AB_Open Result: 13 to 7
Match 7: ID_Improved vs AB_Improved Result: 12 to 8

Results:

ID Improved 68.57%

Playing Matches:

Match 1: Student vs Random Result: 17 to 3 Match 2: Student vs MM_Null Result: 18 to 2

Match 3: Student vs MM_Open Result: 12 to 8
Match 4: Student vs MM_Improved Result: 10 to 10

```
Match 5: Student vs AB_Null Result: 16 to 4
```

Match 6: Student vs AB_Open Result: 11 to 9
Match 7: Student vs AB_Improved Result: 10 to 10

Results:

Student 67.14%

Heuristic 6 test B

Evaluating: ID_Improved

Playing Matches:

Match 1: ID_Improved vs	Random	Result: 19 to 1
Match 2: ID_Improved vs	MM_Null	Result: 18 to 2
Match 3: ID_Improved vs	MM_Open	Result: 11 to 9
Match 4: ID_Improved vs N	MM_Improved	Result: 6 to 14
Match 5: ID_Improved vs	AB_Null	Result: 16 to 4
Match 6: ID_Improved vs	AB_Open	Result: 12 to 8
Match 7: ID_Improved vs A	AB_Improved	Result: 14 to 6

Results:

ID_Improved 68.57%

Playing Matches:

Match 1: Student vs Random Result: 19 to 1 Match 2: Student vs MM_Null Result: 13 to 7

Match 3: Student vs MM_Open Result: 13 to 7
Match 4: Student vs MM_Improved Result: 11 to 9

Match 5: Student vs AB_Null Result: 15 to 5

Match 6: Student vs AB_Open Result: 15 to 5
Match 7: Student vs AB_Improved Result: 16 to 4

Results:

Student 72.86%