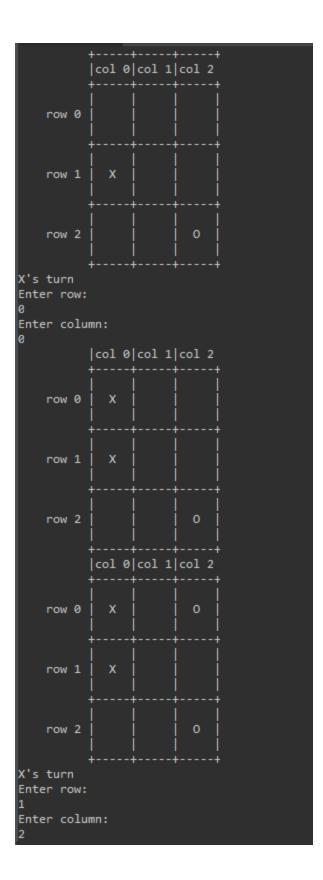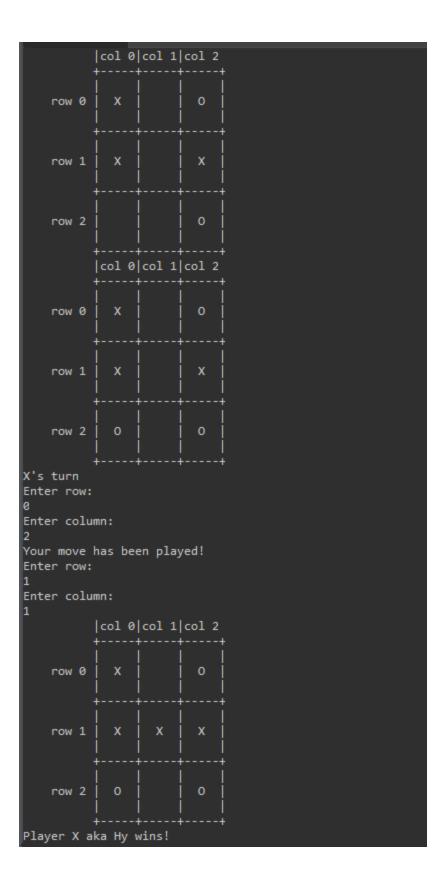# Human Player vs Random Player

```
$ java Exercise_3.Game

Please enter the name of the 'X' player: Hy

What type of player is Hy?
  1: Human
  2: Random Player
  3: Blocking Player
  4: Smart Player
Please enter a number in the range 1-4: 1

Please enter the name of the 'O' player: Random Player

What type of player is Random Player?
  1: Human
  2: Random Player
  3: Blocking Player
  4: Smart Player
Please enter a number in the range 1-4: 2
            |col 0|col 1|col 2
            +-----+-----+-----+
            |     |     |     |
     row 0  |     |     |     |
            |     |     |     |
            +-----+-----+-----+
            |     |     |     |
     row 1  |     |     |     |
            |     |     |     |
            +-----+-----+-----+
            |     |     |     |
     row 2  |     |     |     |
            |     |     |     |
            +-----+-----+-----+
X's turn
Enter row:
1
Enter column:
0
            |col 0|col 1|col 2
            +-----+-----+-----+
            |     |     |     |
     row 0  |     |     |     |
            |     |     |     |
            +-----+-----+-----+
            |     |     |     |
     row 1  |  X  |     |     |
            |     |     |     |
            +-----+-----+-----+
            |     |     |     |
     row 2  |     |     |     |
            |     |     |     |
            +-----+-----+-----+
```

```
        +-----+-----+-----+
        |col 0|col 1|col 2|
        +-----+-----+-----+
        |     |     |     |
 row 0  |     |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
 row 1  |  X  |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
 row 2  |     |     |  O  |
        |     |     |     |
        +-----+-----+-----+
X's turn
Enter row:
0
Enter column:
0
        |col 0|col 1|col 2|
        +-----+-----+-----+
        |     |     |     |
 row 0  |  X  |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
 row 1  |  X  |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
 row 2  |     |     |  O  |
        |     |     |     |
        +-----+-----+-----+
        |col 0|col 1|col 2|
        +-----+-----+-----+
        |     |     |     |
 row 0  |  X  |     |  O  |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
 row 1  |  X  |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
 row 2  |     |     |  O  |
        |     |     |     |
        +-----+-----+-----+
X's turn
Enter row:
1
Enter column:
2
```

```
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |  X  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |  X  |     |  X  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |     |     |  O  |
          |     |     |     |
          +-----+-----+-----+
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |  X  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |  X  |     |  X  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |  O  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
X's turn
Enter row:
0
Enter column:
2
Your move has been played!
Enter row:
1
Enter column:
1
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |  X  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |  X  |  X  |  X  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |  O  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
Player X aka Hy wins!
```
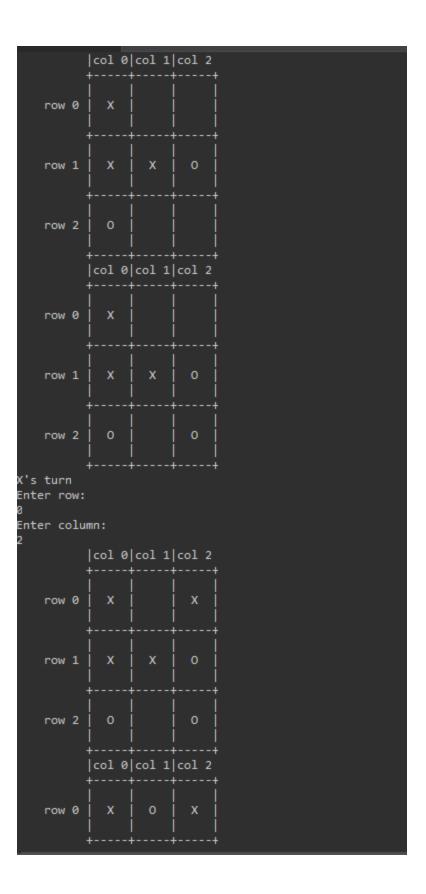
Human Player verses Blocking Player

```
$ java Exercise_3.Game

Please enter the name of the 'X' player: Hy

What type of player is Hy?
  1: Human
  2: Random Player
  3: Blocking Player
  4: Smart Player
Please enter a number in the range 1-4: 1

Please enter the name of the 'O' player: Blocking Player

What type of player is Blocking Player?
  1: Human
  2: Random Player
  3: Blocking Player
  4: Smart Player
Please enter a number in the range 1-4: 3
          |col 0|col 1|col 2
        +-----+-----+-----+
        |     |     |     |
  row 0 |     |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
  row 1 |     |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
  row 2 |     |     |     |
        |     |     |     |
        +-----+-----+-----+
X's turn
Enter row:
0
Enter column:
0
          |col 0|col 1|col 2
        +-----+-----+-----+
        |     |     |     |
  row 0 |  X  |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
  row 1 |     |     |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
  row 2 |     |     |     |
        |     |     |     |
        +-----+-----+-----+
```

```
          +-----+-----+-----+
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
    row 0 |  X  |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 1 |     |     |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 2 |     |     |     |
          |     |     |     |
          +-----+-----+-----+
X's turn
Enter row:
1
Enter column:
0
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
    row 0 |  X  |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 1 |  X  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 2 |     |     |     |
          |     |     |     |
          +-----+-----+-----+
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
    row 0 |  X  |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 1 |  X  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 2 |  O  |     |     |
          |     |     |     |
          +-----+-----+-----+
X's turn
Enter row:
1
Enter column:
1
```

```
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |  X  |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |  X  |  X  |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |  O  |     |     |
          |     |     |     |
          +-----+-----+-----+
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |  X  |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |  X  |  X  |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |  O  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
X's turn
Enter row:
0
Enter column:
2
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |  X  |     |  X  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |  X  |  X  |  O  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |  O  |     |  O  |
          |     |     |     |
          +-----+-----+-----+
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |  X  |  O  |  X  |
          |     |     |     |
          +-----+-----+-----+
```

```
            |col 0|col 1|col 2
       +-----+-----+-----+
       |     |     |     |
  row 0 |  X  |  O  |  X  |
       |     |     |     |
       +-----+-----+-----+
       |     |     |     |
  row 1 |  X  |  X  |  O  |
       |     |     |     |
       +-----+-----+-----+
       |     |     |     |
  row 2 |  O  |     |  O  |
       |     |     |     |
       +-----+-----+-----+
X's turn
Enter row:
2
Enter column:
1
            |col 0|col 1|col 2
       +-----+-----+-----+
       |     |     |     |
  row 0 |  X  |  O  |  X  |
       |     |     |     |
       +-----+-----+-----+
       |     |     |     |
  row 1 |  X  |  X  |  O  |
       |     |     |     |
       +-----+-----+-----+
       |     |     |     |
  row 2 |  O  |  X  |  O  |
       |     |     |     |
       +-----+-----+-----+
It's a tie!
```

Human Player verses Smart Player

```
$ java Exercise_3.Game

Please enter the name of the 'X' player: Hy

What type of player is Hy?
  1: Human
  2: Random Player
  3: Blocking Player
  4: Smart Player
Please enter a number in the range 1-4: 1

Please enter the name of the 'O' player: Smart Player

What type of player is Smart Player?
  1: Human
  2: Random Player
  3: Blocking Player
  4: Smart Player
Please enter a number in the range 1-4: 4
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
    row 0 |     |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 1 |     |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 2 |     |     |     |
          |     |     |     |
          +-----+-----+-----+
X's turn
Enter row:
1
Enter column:
1
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
    row 0 |     |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 1 |     |  X  |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
    row 2 |     |     |     |
          |     |     |     |
          +-----+-----+-----+
```

```
         |col 0|col 1|col 2
         +-----+-----+-----+
         |     |     |     |
  row 0  |     |     |  O  |
         |     |     |     |
         +-----+-----+-----+
         |     |     |     |
  row 1  |     |  X  |     |
         |     |     |     |
         +-----+-----+-----+
         |     |     |     |
  row 2  |     |     |     |
         |     |     |     |
         +-----+-----+-----+
X's turn
Enter row:
2
Enter column:
1
         |col 0|col 1|col 2
         +-----+-----+-----+
         |     |     |     |
  row 0  |     |     |  O  |
         |     |     |     |
         +-----+-----+-----+
         |     |     |     |
  row 1  |     |  X  |     |
         |     |     |     |
         +-----+-----+-----+
         |     |     |     |
  row 2  |     |  X  |     |
         |     |     |     |
         +-----+-----+-----+
         |col 0|col 1|col 2
         +-----+-----+-----+
         |     |     |     |
  row 0  |     |  O  |  O  |
         |     |     |     |
         +-----+-----+-----+
         |     |     |     |
  row 1  |     |  X  |     |
         |     |     |     |
         +-----+-----+-----+
         |     |     |     |
  row 2  |     |  X  |     |
         |     |     |     |
         +-----+-----+-----+
X's turn
Enter row:
1
Enter column:
0
```

```
        |col 0|col 1|col 2
        +-----+-----+-----+
        |     |     |     |
  row 0 |     |  O  |  O  |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
  row 1 |  X  |  X  |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
  row 2 |     |  X  |     |
        |     |     |     |
        +-----+-----+-----+
        |col 0|col 1|col 2
        +-----+-----+-----+
        |     |     |     |
  row 0 |  O  |  O  |  O  |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
  row 1 |  X  |  X  |     |
        |     |     |     |
        +-----+-----+-----+
        |     |     |     |
  row 2 |     |  X  |     |
        |     |     |     |
        +-----+-----+-----+
Player O aka Smart Player wins!
```