MCP361 : Industrial Engineering Lab: Assignment 7

Protocol:

Suppose we are given with a table as shown below:

(Player 1, Player 2)	Strategy 1	Strategy 2	Strategy 3
Strategy 1	2, 2	2, 1	2, 0
Strategy 2	3, 0	4, 1	1, 1
Strategy 3	3, 1	1, 1	1, 1

Only data is important so no need of writing names of columns and rows.

So I have kept text file in the format:

2,2;2,1;2,0

3,0;4,1;1,1

3,1;1,1;1,1

Here the cell values are the same as above.

Different columns are separated by a ";" and different rows are separated by an enter.

This is followed for all 6 problems.

For problem 1:

MCP361_2018ME20727_Assignment7_Problem1.txt

10,8;2,2

0,0;8,10

```
txt_file = open(text_file + ".txt", "r")
        my_list = [line.rstrip('\n') for line in txt_file]
```

Player 1:

[[10. 2.]

 [0. 8.]]

Player 2:

[[8. 2.]

[0. 10.]]

Final :

['1 1', '2 2']

Code Output:

Problem 1:

```
= RESTART: E:\Semester 7\MCP361\MCP361_2018ME20727_Assignment7\MCP361_2018ME2072
7_Assignment7.py
Result for problem 1:
MCP361_2018ME20727_Assignment7_Problem1
Player 1 plays its Strategy 1 and Player 2 plays its Strategy 1
Player 1 plays its Strategy 2 and Player 2 plays its Strategy 2
```

Problem 2:

```
Result for problem 2:
MCP361_2018ME20727_Assignment7_Problem2
Player 1 plays its Strategy 2 and Player 2 plays its Strategy 2
```

Problem 3:

```
Result for problem 3:
MCP361_2018ME20727_Assignment7_Problem3
No equilibrium
```

Problem 4:

```
Result for problem 4:
MCP361_2018ME20727_Assignment7_Problem4
Player 1 plays its Strategy 1 and Player 2 plays its Strategy 2
Player 1 plays its Strategy 1 and Player 2 plays its Strategy 3
Player 1 plays its Strategy 2 and Player 2 plays its Strategy 1
Player 1 plays its Strategy 3 and Player 2 plays its Strategy 1
Player 1 plays its Strategy 4 and Player 2 plays its Strategy 4
Player 1 plays its Strategy 5 and Player 2 plays its Strategy 5
```

Problem 5:

```
Result for problem 5:
MCP361_2018ME20727_Assignment7_Problem5
Player 1 plays its Strategy 2 and Player 2 plays its Strategy 2
Player 1 plays its Strategy 3 and Player 2 plays its Strategy 1
```

Problem 6:

```
Result for problem 6:
MCP361_2018ME20727_Assignment7_Problem6
Player 1 plays its Strategy 1 and Player 2 plays its Strategy 4
>>>
```

Combined Code Output:

```
= RESTART: E:\Semester 7\MCP361\MCP361_2018ME20727_Assignment7\MCP361_2018ME2072
7_Assignment7.py
Result for problem 1:
MCP361_2018ME20727_Assignment7_Problem1
Player 1 plays its Strategy 1 and Player 2 plays its Strategy 1
Player 1 plays its Strategy 2 and Player 2 plays its Strategy 2


Result for problem 2:
MCP361_2018ME20727_Assignment7_Problem2
Player 1 plays its Strategy 2 and Player 2 plays its Strategy 2


Result for problem 3:
MCP361_2018ME20727_Assignment7_Problem3
No equilibrium


Result for problem 4:
MCP361_2018ME20727_Assignment7_Problem4
Player 1 plays its Strategy 1 and Player 2 plays its Strategy 2
Player 1 plays its Strategy 1 and Player 2 plays its Strategy 3
Player 1 plays its Strategy 2 and Player 2 plays its Strategy 1
Player 1 plays its Strategy 3 and Player 2 plays its Strategy 1
Player 1 plays its Strategy 4 and Player 2 plays its Strategy 4
Player 1 plays its Strategy 5 and Player 2 plays its Strategy 5


Result for problem 5:
MCP361_2018ME20727_Assignment7_Problem5
Player 1 plays its Strategy 2 and Player 2 plays its Strategy 2
Player 1 plays its Strategy 3 and Player 2 plays its Strategy 1


Result for problem 6:
MCP361_2018ME20727_Assignment7_Problem6
Player 1 plays its Strategy 1 and Player 2 plays its Strategy 4
>>>
```