

Game Implementation Exercise

Work in your team to create a game called XUltimata, which will consist of 10 rounds of an Ultimatum game. The game should use the SOLUZION framework. Your game should consist of a new problem-formulation file XUltimata.py which will reside inside of a folder called XUltimata which in turn sits inside your SZ_ALPHA folder on Nicto.cs.washington.edu.

1. Be familiar with the Ultimatum game.

Here are some steps for getting started. Play three rounds of the Ultimatum game in your group, each time with a different team member as Player A (the proposer) and a different member as Player B (the decider). The amount of funds available in each round is a constant: say \$100.

Do you see any trends in the offers and responses from round 1 to round 3? If not, why are there not any trends? Then what trends could you imagine?

2. Prepare for an implementation.

Log into Nicto. Set up a folder XUltimata in your SZ_ALPHA folder.

Make a copy of FoxAndGeese.py and put it in the new folder. Rename it to XUltimata.py.

In XUltimata.py, rename the two roles (Fox and Geese) to "Player A (Proposer)" and "Player B (Decider)".

3. Get the basic functionality going.

Arrange for each player to have 10 turns, starting with the Proposer.

Each player starts out with \$0.00.

After each move by the Decider, the money available for that round is either split according to the proposal (and put into each player's account) or the money is forfeited (if the Decider rejects the proposal).

There should be several operators for the proposer. Try starting with two operators for the proposer: One is propose a 25-75 split and the other is propose a 75-25 split. The Decider only gets two operators: Accept and Reject. One these are play-tested, give the proposer some additional operators.

4. Testing and Debugging

Test out your game with the SZ001.py server by using cd to go into your XUltimata folder and then typing

```
../SZ001.py XUltimata 5001
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or some other number in the range 5000-5999. You don't want to use a number in use by another group.

5. The UI.

Don't bother with any SVG for this game. Just show the state as a list of the accounts, plus an indication of whose turn it is and if it's the Decider's turn, what the proposal is.