The Enhanced Ultimatum Game Race

The EUGR is the second tournament of this game theory class and it will be played individually, not as teams, but collusion and alliances are certainly encouraged. Remember, there can only be one winner. This tournament will be a good deal less involved than the IPD tournament, but the prize remains the same: 100% on the assignment of your choice if you come out on top. This tournament will be structured like a grand prix style race. Participation is not mandatory. **Fully read these instructions before going online.**

- Each player will submit a strategy directly to the website application described in the next section.
- These strategies will be held in competition with one another by playing the Enhanced Ultimatum Game. A more complete description of this competition can be found further on in this document.
- There will be elimination in this tournament. Teams which are doing poorly, either from lack of preparation or participation, will be culled and no longer allowed to compete. Participation marks will still be awarded.

**How to Play**

Recall the EUG: it is a two player game, with \( L \), dollars on the table, one player takes the role of Proposer, and the other the Demander (or Acceptor, depending on how you look at it). The Demander starts the game by making a demand, \( D \), which is sent to the Proposer. The Demander has a minimum accept, \( M \), and \( M \leq D \), which he or she is really willing to take. The Demander must pay a cost, \( c \), for lying about his or her minimum accept. The Proposer takes all of this information into account, and decides on an offer, \( P \), of how to split the money between both players. If \( P \geq M \), the deal goes through and the payoffs are \( \pi_{\text{Proposer}} = L - P \) and \( \pi_{\text{Demander}} = P - c|D - M| \), or zero for both players if \( P < M \). In this version of the game, \( L \) will be 20. We will be using strictly integer values in this game, with the exception of cost.

**How to play the EUG Race**

This game will be played entirely online. You will log in to a website, create a username and password, and enter your strategy. The following instructions
should help you do this. First, go to the website
This will bring you to the webpage that looks something like this:

Don’t worry about the sidebar if yours looks different than what I have.
There are three fields to fill in, username, password, and retype your password.
If you are registering for the first time, enter your username and password in the right spots, and click the Register button, do not hit Enter. If you have already registered and are logging in to make changes to your strategy, enter your username and password and hit Enter. Your user name will be your first name and the last two digits of your student number. For example, my username would be Andrew06. Failure to follow this rule will result in immediate disqualification from the tournament. After you’ve registered, you should come to this page:
This is your strategy. It should start with default values of 1 in every spot. Notice that your first two numbers are the minimum accept and demand you will give. The P1 column is what you will propose if you receive a demand of 1. The P2 column is what you will propose if you receive a demand of 2. And so on. All values in this strategy must be integers between 1 and 19, hopefully for obvious reasons. To edit this, click on the pencil, circled in red.

This page allows you to edit your strategy. Enter values in each field if you desire, and then
Do not forget to click Apply Changes when you are finished. And now you are ready to play. You may update your strategy as many times as you like, although when I am conducting the actual tournament play your strategy will be the one you most recently submitted.

**The Details of the Tournament**

Once each strategy has been submitted, every strategy will play every other strategy twice, switching roles between games, called a **round**. The strategies that are the most successful will be the ones with the most money at the end of a round, and ties will be broken at random. Each round, the top scoring strategies will be awarded points. The strategy that scores the highest for that round will be awarded 30 points, the strategy that scores the second highest will be awarded 29 points, and so on, until the strategy in the 30th position is awarded 1 point. All other strategies will be awarded 0 points. We will play as many rounds as time allows, and the winner of the tournament is the strategy that has the highest total points. Rules for ties are detailed in the course outline.

**The Cost Modifier**

The cost modifier will be randomly determined each round, to be a uniformly randomly chosen value between 0 and 1. Even I will not know the value of the cost until after the fact. Lying could be not costly at all, or very costly. If your payoff is negative during any interaction, it will be set to zero instead.
Elimination

After the first five rounds, any strategy that has no points will be eliminated from the tournament. You will not be penalized for being eliminated. After the elimination happens, I will wipe the tournament list in the application and you will need to re-register. I will post which people are eligible to re-register. The tournament standings from the first five rounds will still count. The tournament standings and the strategies of players will be available to view on a Google document that will be made public after the first round of the tournament has happened. Updated strategies will be posted after each round is resolved.