Team 23: 12:30-1:45 section

Nabeel Haq - [nhaq2@uic.edu](mailto:nhaq2@uic.edu)

Juan Moraza - [jmoraz2@uic.edu](mailto:jmoraz2@uic.edu)

Hector Sanchez Rios - [hsanch21@uic.edu](mailto:hsanch21@uic.edu)

Project 5 Description - Beetle

We decided to create the dice game beetle. How this game works is that a player begins by rolling a dice. A body part of a beetle is drawn depending on the number they rolled. If they roll a 1, the body, 2, the head, 3, a leg, 4, an eye, 5, an antenna, and 6, the tail. The restrictions are as follows. A player must draw a body first, then a head. The legs tail and head can’t be drawn until the player has rolled a 1, and the eyes and antennae can’t be drawn until a player has rolled a 2. If the player rolls something they can’t draw, their turn ends. A player’s turn doesn’t end until they roll something that can’t be drawn. A winner is decided once a player has drawn a complete beetle. The GUI will have a die roll button on it with a picture of a dice, giving them a random number between 1-6. A body part of the beetle will show up on the GUI if rolled correctly.

For this game, we will be using Java with JavaFX using sockets and threads. The client server relationship will be implemented similar to how we did it in project 3 and 4. The server GUI will have a text field where you can enter a port number, along with a connect button to connect to the server. It will also have a text area to display messages. We might add more to the server GUI but for now, those are the essentials. For the client GUI, there will be a text field for the port number and the IP address, with a connect button that will connect the client to the server. It will have a button to roll the dice, and an area that displays the body part drawn for each player. The clients will each be on a separate thread, so that each player will be unique. The game will not be able to start until at least 4 clients are connected. A random number will be assigned to the client when the die roll button is clicked. The player who’s turn it is can continue to roll until they roll something that can’t be drawn. When a player’s turn ends, the next player will roll chronologically. The GUI will automatically display the winner when it is found. A new game will automatically be started after the game is over, and the clients die roll numbers will be reset. When a client exits the GUI, each remaining client and the server will be notified.