**Report on PBL Project - Lottery Game**

Omotola Otesanya x17131553

Catherine Lane x17118832

Martina Sardo Cardalano x17149676

**Input:**

* int [][] usersNumbers
* Int lines (number of lines user wish to play)
* Generated random Lottery numbers; int [] lottery = new int[6]

**Process**

* Unique numbers per line entered (repetition and selection statements, for User and Lottery values).
* Numbers only valid between 1 and 40 (repetition and selection statements, for User and Lottery values).
* Get and Set methods to take User values and Lottery values.
* Compare method between User’s input values and Lottery values.
* Calculate total winnings

**Output**

* Displays how many numbers match between the each line the User entered and the Lottery values for the week.
* Offers a detailed History of games played by the user.

**Project Breakdown:**

First meeting determined the IPO and decided that the project would break into three parts which were selected at random:

1. Class with method for 1D array storing Random Lottery numbers generated taken on by Catherine Lane x17118832 - Generator.java. This required the values to be non-repetitive and be produced from 1-40 only.
2. Class with method for the 2D array storing the User’s requested number of lines and values of the numbers entered into each line taken on by Omotola Otesanya x17131553 - UserLotteryInput.java and UserLotteryInputApp.java. The User’s input had to be between 1-40 and repeat values were disallowed.
3. Class including the Compare method, taking the User’s input and Lottery numbers and detailing a History of that Game. This extended to a full history of all games the user played taken on by Martina Sardo Cardalano x17149676.
4. Additional content included creating the Main instantiable class and writing out the display content (Omotola Otesanya), adding the final code to use and create one final program (Martina Sardo Cardalano) and also the creation of the Class Diagram and report (Catherine Lane).

