Assignment 2 (Bubble Trouble Game) Report

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While writing the code for the Bubble Trouble game, I created 5 classes named Environment, Player, Arrow, Bar and Ball besides the Main Class. To summarize these Classes and the objects they create:

1-)Main Class: The Class in which the Frame is drawn and the necessary command is given to start the game. Game is started by calling the main drawing function from Environment Class. (Also, if the player wants to play again at the end of the game, this class handles this situation.)

2-)Environment Class: Class with the widest scope since all drawing elements are in this class. As a function, it draws the elements on the whole game screen every 15 milliseconds and checks the intersections (player-ball, arrow-ball) as well as the appropriate Space key pressing intervals required for launching the Arrow.

3-) Player Class: A class that has a simple structure in terms of content and moves the player according to the right-left keys of the user. In addition, necessary controls are made here so that the player does not go beyond the frame limits.

4-)Bar Class: Class that sets the length and color of the time bar.

5-) Arrow Class: Class that records the moments when the user presses the Space button and has the simplest structure in the code.

6-)Ball Class: Class that allows us to capture frame-by-frame positions and speeds of ball objects. Thanks to the constants such as gravity and radius multiplier, we are able to calculate the appropriate height and velocity values for each ball.

Thanks to this assignment, I made the concepts of class and object much more concrete in my mind. In particular, storing ball objects in an Arraylist helped me fully understand the definition of "object". But I must also say that the homework was a challenging and time-consuming homework for me. (Homework start date: 13 April, Homework completion date: 16 April)