Jenn Teh Mini project reflection - Pong

Creating the Classic game pong was both fun, at the same time, challenging at times.

Coding basic gameplay:
Making the ball move around the canvas was puzzling at first as animating the object was an area I struggled with. By working in a group of two with a classmate and looking back at previous class activities we were able to figure the code out and give the ball a random movement: the velocity is set where direction is both -1 and 1 and speeds are 3.5 and 2 for the x and y axis, an easy to follow random direction.

As for the players paddles, the left and right Paddles, I had to connect each paddle shape to two keys on the laptop for the paddle to move and play, using variables that I learnt from the previous classes like 'keyIsPressed' and 'keyCode' I was able to allocate W&S to the left paddle and ARROWUP & ARROWDOWN to the right paddle.

With the basic shapes in movement down, I then transferred the code techniques that we learnt from activity 4b and 5a on bouncing shapes and detecting collisions and applied it to create the bounce of the ball when it intersects with the paddle, for when the edge of the ball meets the edge of either paddle or top or bottom of the game area it moves back into the game area.
However if the ball reaches the edges of the left and right game area ('scoring edge') I refresh it back to the middle of the canvas where it will bounce off randomly left/right for the game to resume.

Like the original pong game, I also added a counter point system through left/rightclick of which the game auto calculates and adds a point to the score board at the above game area.

Finally to bring the game to life sound effects and background music are added. The sound effect of the ball bouncing off the paddle is however louder than the bounce on the walls to emphasize the 'pong' of the paddle.

Spicing up the game:
After awhile of testing out the game with the simple features I realise it can get boring with the constant medium speed of the ball, as such I decided to add a new feature to make it a challenge for the players.
If the rally between the two players keeps going on, the game will get harder by speeding up the ball x1 its previous speed. This encourages the players to engage more with the game as well as pushes for a loser for the game to move forward.

In addition to this, I also added a restart button which gives another new way of playing - randomised paddle size.
The unexpected shape of the paddle (could be very thin and long/ thick and short) generates unique gameplays where one opponent may have an advantage/disadvantage against the other.
To note, every restart the game refreshes back to 0:0 allowing for a new gameplay as well.