**Computer Programming - World's Hardest Game – Coding Phase**

**40 Points**

There are several different aspects to this program. Each of them was covered in an earlier program that we built in class.

**Timer**

You will definitely need a timer to move the four balls. You can use the same timer for all four balls since they move at the same speed.

**Balls moving left to right**

Use the logic from the Sentry program to make the balls continuously move left and right. The *tag* property of the balls might be useful here.

**Keyboard Input**

Use the logic from Mario to move the box to the left, right, up and down. Be sure to look at the syntax from the WallBlock program. The Box’s *tag* property will definitely come into play.

**Contain the Box inside the Maze**

Use the logic from WallBlock to push the box back when it collides with any of the 16 wall labels.

**Collision Detection**

Use the collision detection logic to place the box back at its starting location when either of the four balls hits it or when the box moves into the ball.

**Winning the Game**

If the Box reaches a specific X value, (somewhere in the green finish label), have the message box declare the level as cleared. It will probably be a good idea to turn off the timer when this happens as well.

**Important Considerations**

Make sure you determine an increment for the movement of the balls that will allow the ball to hit both the left locations in which the ball will change direction. (Touch left wall and right wall).

I would consider making a Private Sub for checking for collisions between the box and the balls, as well as the box and the 16 walls. This sub will need to be called not only when the box is moved, but also when the balls are moved.

The programs that you can use code from to help you achieve this program are:

**Mario WallBlock Sentry Maze**

\*\*Note - This is a heavily weighted assignment and is as close to a test as we get in this class. I want you to show your understanding from previous programs and the ability to identify appropriate code from those programs and be able to change it for your current program (World’s Hardest Game). While I am always available to help you as you struggle, I expect for you to make an attempt at the code before asking for my help.