The purpose of this assignment is to create a Tetris that has the following functionalities, the ability drop pieces on a Tetris board, output total number of points scored at the end of the game, and the capability of moving Tetris pieces left to right with a mouse click. There are three classes used to create this game. This is been structured as follows, a package called Tetris, which has three classes, Tetris View, TheShape and TetrisViewMain. The solutions on each class would be discussed as a paragraph of its own.

The class Tetris View extends the Panel and implements the ActionListener. It is one of the most important parts of the game .The top of the class has key variables that have declared as Boolean, int, and final. It has a timer that controls the flow of Tetris pieces when game is started. The start method, and pause method regulate the control of the game, and both methods called the timer method. The action performed method comes after the start method. It checks to see whether falling variable is false, and if false it creates new a piece, and if not it the falling piece goes one line down.

The paint method has a two stage process, the first one is to paint all the blocks and the second stage is to paint the falling prices. The clearTheboard method gets created for validation purposes. A private method dropAPiece puts the falling pieces in the array. A new Piece method is created to get a new random shape. A move method is created to move the Tetris pieces, the method returns false if the pieces reach the board boundary or proximate to the already fallen piece. A delete full lines method gets created to check for any deleted lines that are. The drawSquare method gets created using the square width and height. The game is controlled using a mouse, this is been controlled by MouseAdapter. It is an inner class that overrides the MouseClicked method.

The class Theshape provides the details about the Tetris piece. The data type enum is been used, which allows constants to be grouped together, given the name enum Tetrominos, which holds all the seven shapes and an extra empty shape called shapeBlanck. The constructor shape holds the main array coordinates of a Tetris piece. The coordinate Table array holds all the square blocks

The class TetrisViewMain has a constructor call TetrisViewmain that sets the frame size, adds a score button to the panel, add the board to the panel, and set the title of the application. The main method is also in this class, which calls the necessary method for the code to compile.

Conclusion

The making of this Tetris game has been challenging, but has been a big learning curve for me personally. Further features have been added as an extra functionality to the TheShape class, the rotation left and right methods. The inner class KeyListener is been added as extra functional requirements to the class TetrisView.