**Team 5 Project Write-Up**

Team Members: Laura Baldwin, Stephanie Krass, Logan Maack, Brian Parks, Nicholas Sixbury

Team Leader: Stephanie Krass

**Project Description/How to use:**

The application written was for a computer game. The game plays like Tetris, because it is a Tetris clone. The user can rotate the pieces, move them left or right, as well as increase the drop speed, and allow for a piece to be swapped into the hold position. The game also tracks the high scores of up to three players. If a player has managed to acquire a score high enough to put on the board, then the player will be prompted for their name, to display on the scoreboard along with their score.

To run the application, double click on Tetris.jar. The controls for the application are as follows: the left and right arrow keys are used to move the piece from left to right as it falls. You can also use the down arrow key to speed up the piece’s descent. Along with this a player can also press on the Z key to rotate the piece clockwise and on the X key to rotate it counter-clockwise. Finally, a player can also press the C key to put a piece into hold to be swapped out later by the user.

**Information Learned:**

* Increased familiarity with File IO
* How to use JPanel for graphics and how to implement a KeyListener
* How to use JButton to call a method when pressed
* How to use Github combined with Eclipse to easily import and share files with collaborators
* The importance of using packages to help organize classes that use similar information or have relationships dealing with inheritance
* How to properly implement Java swing features
* Coordinating with other people in order to accomplish a task requires a lot of communication as well as time management as a group
* The importance of having a hard drive backup, so one does not lose all their files pertaining to the group project indefinitely

**Problems/Modifications/Things to Have Done Differently:**

* The point class was modified so that it was not for x and y coordinates, but rather to access information in arrays and to decide whether or not a piece was in play.
* The classes for the pieces ended being not as robust as first thought, so changes were made to the division of the project aspects
* Lack of communication/checking messages from other group members, which lead to a disproportionate amount of work being done by some team members
* More time should have been spent as a group to make sure everyone understood their tasks fully and had the resources to accomplish them
* Group meetings on the project should have occurred sooner and been more frequent
* An agreement prior to the start of the project in terms of tools to use would have fixed issues relating to team members abilities to efficiently work together
* Issues arose with the algorithms for rotation and shifting, which caused for a lot of time being spent rewriting it in the code whereas it would probably have been better to plan a sound algorithm from the start.

**Breakdown of Tasks:**

* Laura Baldwin:
  + Wrote: ScorePanel.java
  + Collaborated on: TPiece.java, StickPiece.java, SquarePiece.java
* Stephanie Krass:
  + Wrote: Project Proposal, TPiece.java, StickPiece.java, SquarePiece.java, UML Diagrams, Executable JAR file
  + Collaborated on: JPiece.java, LPiece.java, Board.java, Score.java
  + Set-up the Team’s Github, set-up group meetings, and Groupme
* Logan Maack:
  + N/A
* Brian Parks:
  + Wrote: GenericPiece.java, SPiece.java, ZPiece.java, JPiece.java, LPiece.java, Board.java, GameFrame.java, TetrisApp.java, Batch Script Compiler
  + Collaborated on: Point.java, ScorePanel.java
  + Managed the Github’s branch merges, set-up group meetings, took the lead role on the graphics components of the code as well as resolving errors
* Nicholas Sixbury:
  + Wrote: Score.java, Point.java