TETRIS PROJECT

Java Standard Edition - Development Project

SOMMAIRE

1.   CONTEXT

Do you know Tetris?

It is a very famous tile-matching puzzle video game originally designed and programed by Alexey Pajitnov in the Soviet Union. It was released on June 6, 1984, while he was working for the Dorodnicyn Computing Center of the Academy of Science of the USSR in Moscow.

He derived its name from the Greek numerical prefix tetra- (all the game's pieces contain four segments) and tennis, Pajitnov's favourite sport.

We've all played this game, haven't we?

This project must be done by groups, each containing 2 to 3 students maximum. Working in a bigger group will be sanctioned by penalty points.

2.   SPECIFICATIONS

The objective of the game is to manipulate Tetriminos (pieces), by moving each one sideways and rotating it by 90 degree units, with the aim of creating a horizontal line of ten blocks without gaps.

When such a line is created, it disappears, and any block above the deleted line will fall.

If the heap of pieces reaching the top of the game board, the player loses and the game is over.

The game only needs a single window to be played. This window is composed of two main parts:

- A menu: "New game", "High score", "Exit".
- A game board where the Tetriminos fall and where you must build lines.
- Information board to the right where you can see your current score and the next piece which will fall.
- A high score view, accessible from the menu
- A pause function and popup, which allow the user to exit the game and go back to the main menu
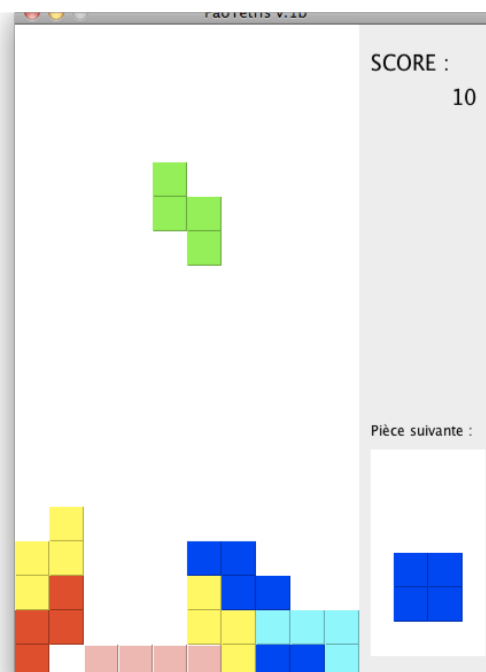
There are seven different forms of Tetriminos:
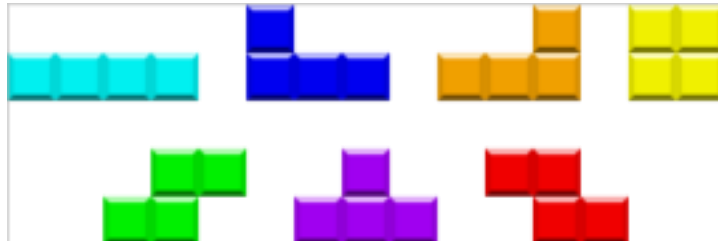
The scoring formula must be built on the idea that more difficult line clears should be awarded more points.

So, a single line clear in is worth 10 points, clearing two lines at once is worth 30 points, three lines at once 50 and four lines (known as a Tetris) 80.

When the player loses, he must be notified with a simple popup.

2 INSTRUCTIONS

- Plagiarism is forbidden.
- Make accessible his code on a public sharing platform before the send of the evaluation is forbidden.
- You must code it with Java Standard Edition platform.
- You can use any Java libraries you want (Slick2D, LWJGL, LibGDX, jMonkeyEngine etc.)

3 SUBMIT

Submit your project as a ZIP archive named as follows:
TetrisProject_MYSCHOOL_STUDENT_NAME_DD_MM_YYYY.zip

It must contain all the source code, application executable and potential external libraries.

You will send the archive to your teacher email address: tp@guillaume-balas.fr

Always code as if the guy who ends up maintaining your code will be a violent psychopath who knows where you live.
Martin Golding.