Tech Project Proposal

The objective of this program is to simulate a puzzle game known as Tetris created by Alexey Pajitnov on June 6, 1984. It will copy the original Tetris (as opposed to the new one with flood fill algorithm.) Although the graphics won't be easily like the original game, the game play and 2D concept as well as the controls will remain the same.

The program will be made under C++ with the help of the game programming library - Allegro. The library provides a vast amount of useful functions and routines for creating basic games. I will be mostly using graphics mode, 2D primitives, blitting, music (MIDI), text, keyboard and timer functions.

The program will consist of 2 main parts, logic and render, and they will both run in a loop until the game has ends. The logic portion will be limited to allow to run certain times per second. The logics portion of the program will check keyboard input and generate coordinates as well as simulate physical aspect of the game such as gravity and collision checking. The rendering portion of the program will first take the coordinates from the logical portion and renders it onto a buffer. When everything is done rendering, it will transfer the image onto the screen. The use of a buffer virtually eliminates flickering of the screen caused by the clear screen command. Due to the fact that the program technically overlaps the screen instead of clearing it before rendering, the screen will not flicker.

Only the logic portion is limited because the speed of running its function will determine the speed of the game. The use of a buffer prevents the screen from flicking and provides a smoother motion.