

# CS451 - Computer Graphics and Game Design

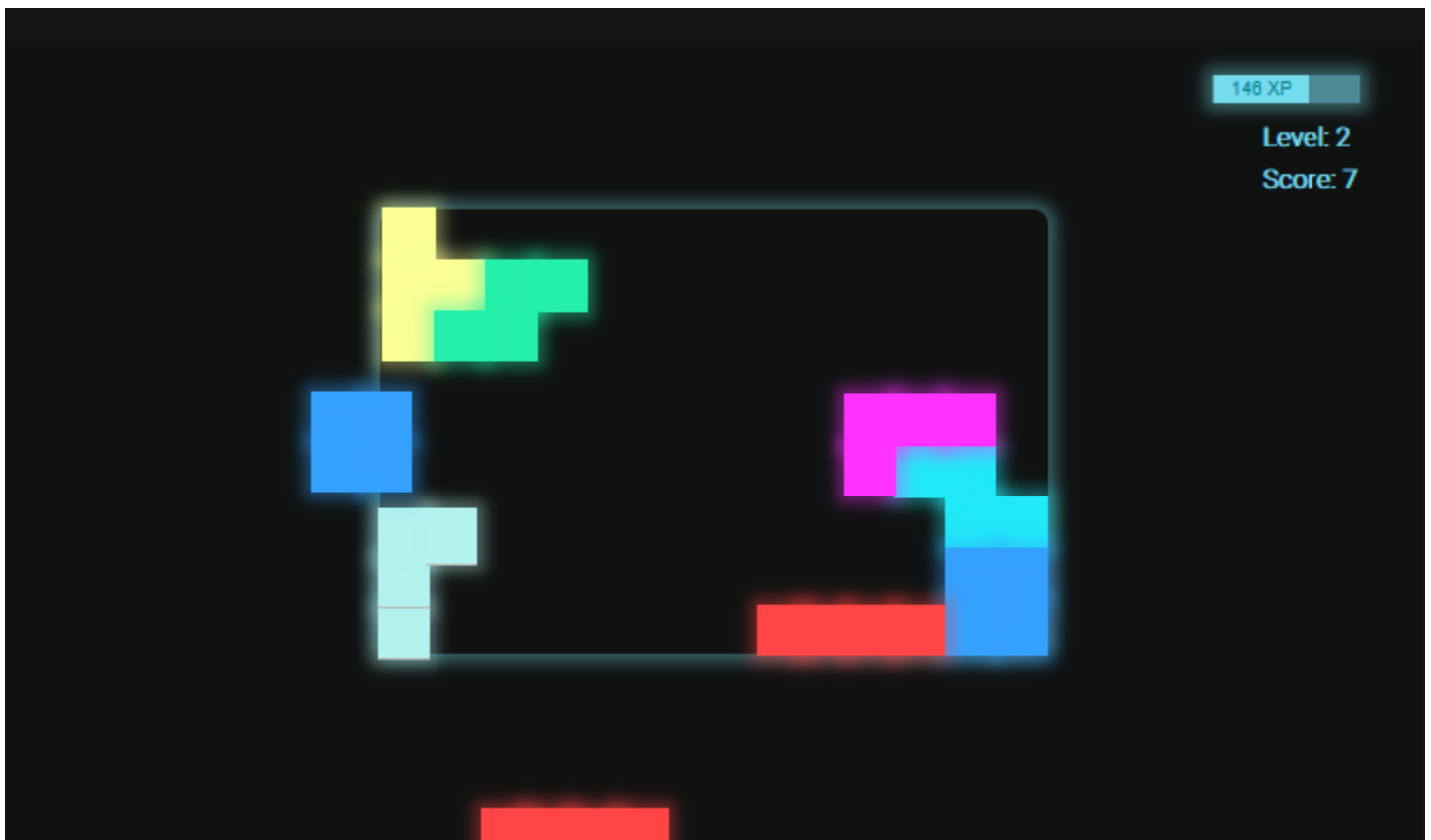
## Project Specification

### Team Members

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### Category: C4



### Description

The player can control blocks of different shapes (right now we have thought of only 7 shapes) coming in from all 4 directions to fill up the empty container.

### Gameplay

- The player has the ability to move the blocks in a direction perpendicular to the current line of motion of the block. Eg: If the block is coming in from the left/right, then the player can move the block up/down and vice-versa.
- The player can rotate any block in multiples of  $90^0$  to make it fit in the container.

- The player can choose to skip a particular block if it can't be fit in any configuration.
- There are some blocks with bombs present in them. The player should either skip these/safely navigate them to the other side of the container.
- If a bomb collides with a block, then the block blows up and the score reduces.
- The player can control all translational movements using the arrow keys and can rotate the blocks clockwise using the spacebar.
- If the block collides with another block or if it collides with the boundary of the container, it will stop at that position.

## **Levels & Scoring**

- The score is calculated based on the number of blocks that are present inside the container.
- Bonus score would be awarded on the basis of how much percentage of the block is filled.
- Some points will be deducted everytime the player skips a block.
- If a player safely navigates a bomb to the opposite side of the container without any collisions, then the player will be awarded with a bonus score.
- No points will be deducted if a player skips a bomb.
- Once a session is finished, the score of the current session is added to the XP of the player.
- A player will level up if the XP crosses the level's threshold.
- The speed at which blocks approach the container also increases as the player levels up, thus increasing the difficulty.