TETRIS 3D – Class Behaviors & Functions

Public class SpawnNext()

- Get the number of shapes included in the game
- Spawn a random shape from the array of shapes at the top of play area

Public class MenuController()

- Call different functions to manipulate the UI

Public class CubeArray()

This class will check 2 main game play features

- If the two shapes are intersecting or colliding with each other or with the boundaries of the play area → ***updateArrayBool()***
- If there is any row that is completely filled by the cubes of set cubes.
    - If any row is full then it will delete that entire row(s) and pass the number of deleted row(s) to **Scoring()** class for points calculation
    - Move all the cubes above the deleted row(s) below

Public class Movement()

- Move the shape one block down while updating each frame
- Check for the input keys (game control keys) pressed by player in each update frame call
    - Move / rotate the current shape based on the key input received
    - Check if the current shape is within the scope of the play area every time any key input is provided by player
    - If the current shape collides over already set shape, then set the current shape and spawn new shape.

Public class Rotation()

- Write the left (+90) and right (-90) rotation functions to be called in CheckInput() in Movement class
- Write new vector3 coordinates for each shape based on type of rotation inputs. ***NOTE:*** *shape I and Z can be rotated in 2 types whereas shape L or shape T can be rotated in 4 types*

Public class Scoring()

- Will keep track of total number of rows deleted for points and level (speed) calculation
- Will calculate the points based on the number of rows deleted and the current level of the game
- Increment the level of the game (speed at which shapes move down) after deletion of every 10 rows

Public class AudioController()

Provide functions for playing audio alerts on:

- Detecting and deleting the full-line
- Detecting the blockage of movement / rotation of the cube