A4 - Process Work (totally not mario)

https://www.mariouniverse.com/sprites-nes-smb/

/\sprite sheet for all Mario stuff

level design

different functions i will need

player camera (?)

ground

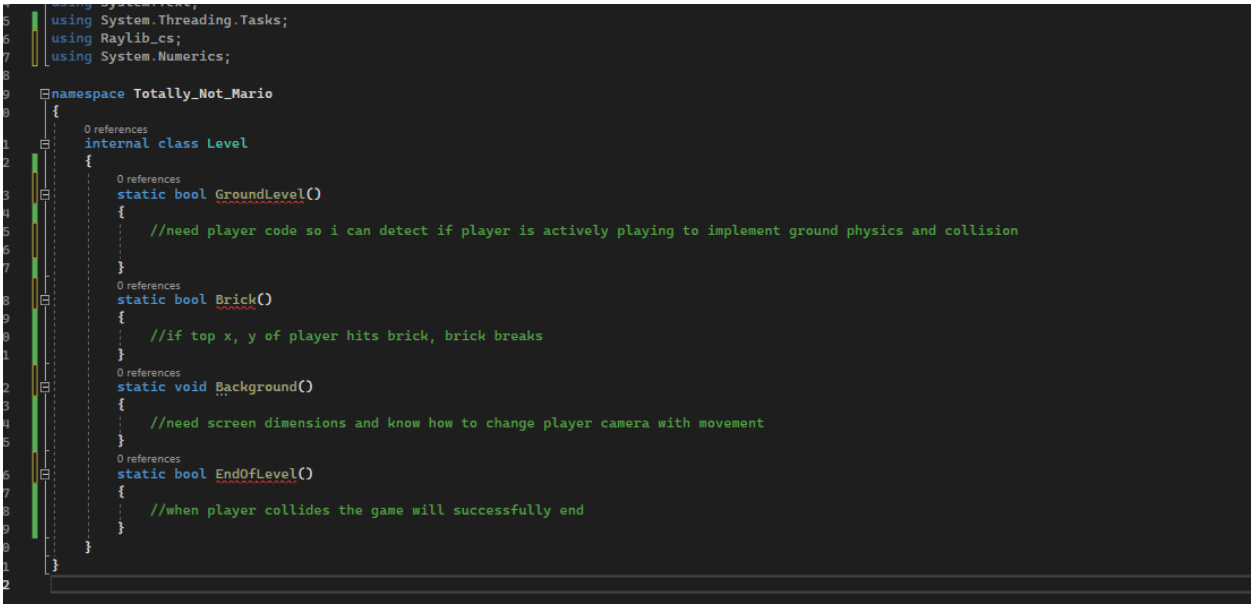
Sky and background

block (breakable)

pipe (?)

item blocks (size up(?))

draw function



```
using System.Threading.Tasks;
using Raylib_cs;
using System.Numerics;

namespace Totally_Not_Mario
{
    0 references
    internal class Level
    {
        0 references
        static bool GroundLevel()
        {
            //need player code so i can detect if player is actively playing to implement ground physics and collision


        }
        0 references
        static bool Brick()
        {
            //if top x, y of player hits brick, brick breaks
        }
        0 references
        static void Background()
        {
            //need screen dimensions and know how to change player camera with movement
        }
        0 references
        static bool EndOfLevel()
        {
            //when player collides the game will successfully end
        }
    }
}
```

what i need to figure out

how to get screen to move with player

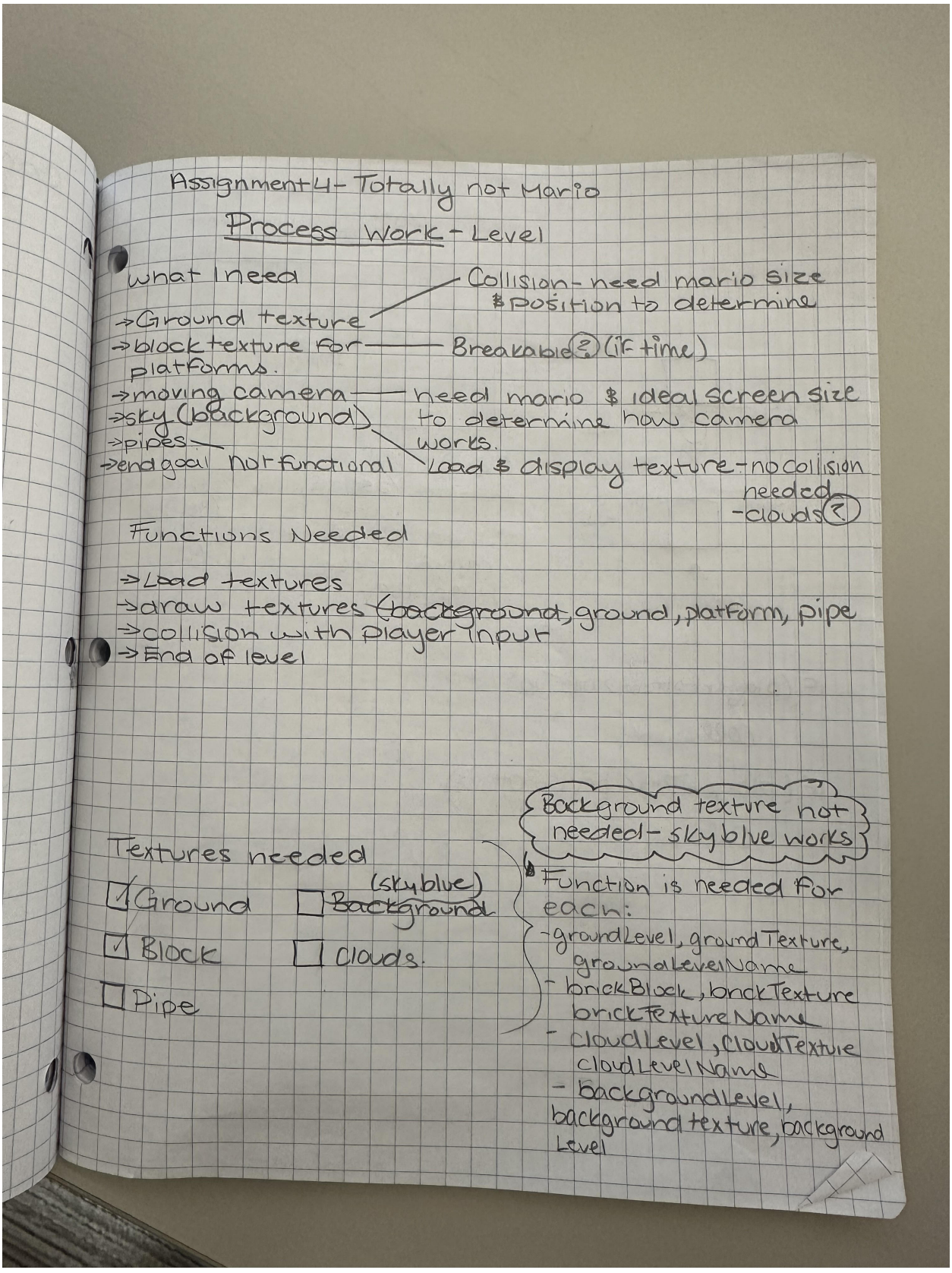
how to make breakable blocks

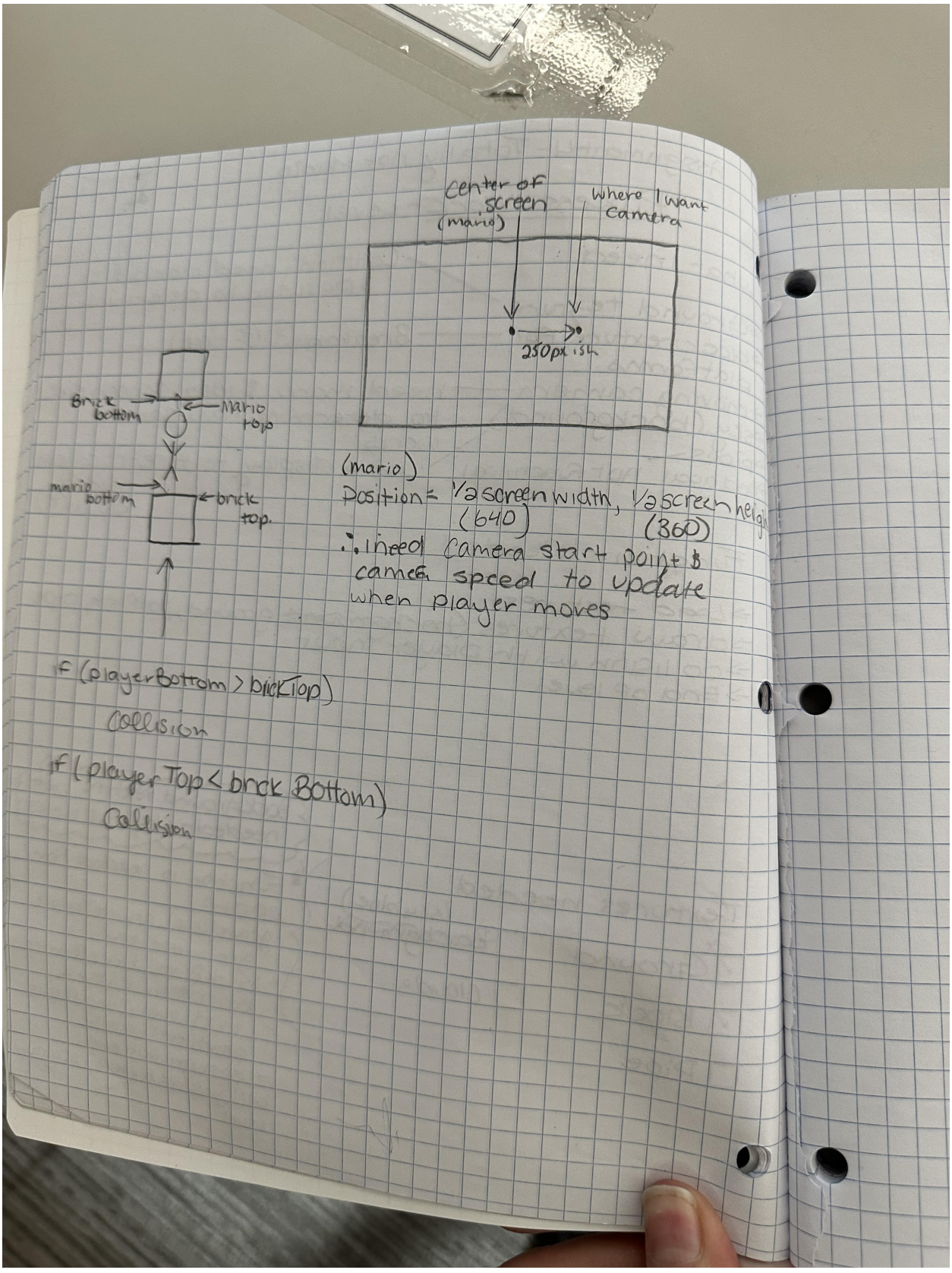
```
static Texture2D Load2D(string groundLevelName)
{
//loads ground texture to draw
  Image groundLevel = Raylib.LoadImage("../../../resources/{groundLevelName}");
  Texture2D groundTexture = Raylib.LoadTextureFromImage(groundLevel);
  return groundTexture;
}
```

```
//detect player collision
        //public void DetectCollision()
        //{
        //    GetMarioLocation();
        //    float marioBottomEdge = marioPos.Y + marioSize.Y;
        //    float groundTop = groundPosY.Y;

        //    if (marioBottomEdge < groundTop)
        //    {

        //    }
        //}
        //public void GetMarioLocation()
        //{
        //    //mario location
        //    float marioLeftEdge = marioPos.X;
        //    float marioRightEdge = marioPos.X + marioSize.X;
        //    float marioTopEdge = marioPos.Y;
        //    float marioBottomEdge = marioPos.Y + marioSize.Y;
        //    //ground location
        //    float groundLeft = groundPosY.X;
        //    float groundRight = groundPosY.X = groundSize.X;
        //    float groundTop = groundPosY.Y;
        //    float groundBottom = groundPosY.Y = groundSize.Y;

        //    bool overlapLeft = marioLeftEdge < groundRight;
        //    bool overlapRight = marioRightEdge < groundLeft;
        //    bool overlapTop = marioTopEdge < groundTop;
        //    bool overlapBottom = marioBottomEdge < groundBottom;
        //    bool doesOverlap = overlapLeft || overlapRight || overlapTop || overlapBotto
m;
```

```
        //}
```

/\ already done in character branch


Assignment 4 - Totally not Mario
Process Work - Level
what I need
→Ground texture
→block texture for platforms.
→moving camera
→sky (background)
→pipes
→end goal not functional
Collision - need mario size & position to determine
Breakable? (if time)
need mario & ideal screen size to determine how camera works.
Load & display texture - no collision needed
- clouds?
Functions Needed
→Load textures
→draw textures (background, ground, platform, pipe
→collision with player input
→End of level
Textures needed
Ground
Block
Pipe
(sky blue) Background
Clouds.
Background texture not needed - sky blue works
Function is needed for each:
- groundLevel, groundTexture, groundLevelName
- brickBlock, brickTexture brickTextureName
- cloudLevel, cloudTextue cloudLevelName
- backgroundLevel, backgroundtexture, backgroundLevel


center of screen (mario)
where I want camera
250px ish
brick bottom
mario top
mario bottom
brick top.
(mario)
Position = 1/2 screen width, 1/2 screen height
(640) (360)
∴ I need camera start point & camera speed to update when player moves
if (playerBottom > brickTop)
collision
if (playerTop < brick Bottom)
Collision