For the coding task two I took the hunter mechanic in our game. With the code I wrote for the hunter mechanic I got the sprite loaded into the game and then have him move left and right along the platforms. On contact with the hunter the player would have to restart the level.

```
void SoftFox::movement()
{
    if (HunterDirection < 0) //hunter is set to minus one in header so it chec
    {
        if (level->isWall(HunterX / tileSize - 1, HunterY / tileSize + 1) &&
            (!level->isWall(HunterX / tileSize - 1, HunterY / tileSize))) //wh
        {
            HunterX -= 3; //move left
        }
        else
        {
            HunterDirection = 1; // else hunter turns around
        }
    }
    else
    {
        if (level->isWall(HunterX / tileSize + 1, HunterY / tileSize + 1) &&
            (!level->isWall(HunterX / tileSize + 1, HunterY / tileSize))) // w
        {
            HunterX += 3; //move right
        }
        else
        {
            HunterDirection = -1; //loops hunter back to the start
```

Here the Hunter is checking the blocks around him to find walls to walk on. He is also checking to see is a wall is next to him which he cant walk through. This is to get the hunter pacing back and forth. He checks the blocks using tilesize but moves by pixels. The hunterDirection means he only checks one way at a time avoiding him getting stuck when he can move both ways.

```
void SoftFox::hasFoxTouchedHunter()
{
    SDL_Rect HunterBox = { HunterX - SPRITE_SIZE / 2, HunterY - SPRITE_SIZE / 2 + spriteAdjustmentHunterSize, SPRITE_SIZE, SPRITE_SIZE };
    SDL_Rect playerBox = { playerX - SPRITE_SIZE / 2, playerY - SPRITE_SIZE / 2, SPRITE_SIZE - 70, SPRITE_SIZE - 70 }; //putting a box arc
    if (physics -> isCollision (HunterBox, playerBox))//if collision occurs
    {
        resetPlayer();
    }
}
```

This section above uses collisions to assess if the fox has collided with the Hunter. If so this then resets the fox back to it original position. Which it gets from level as the foxes start position is defined using the txt document. The hunters collision box is the sprite size minus 70 so it is possible to jump the hunter. If the boxes collide it calls the function reset player.

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