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Scratch Game Project

Using Scratch to create Mouse Trap was an interesting experience. The program is touchy, but it helped to get an idea of how a computer runs through commands and how to logically work through mistakes in the code. My partner and I worked on recreating Mouse Trap, an old game you could play on ColecoVision, although we had to diminish some of the features in order to finish the project on time.

An incremental process in the game is the switching of backgrounds; the first time the flag is clicked, a home page comes up. Once the space bar is pressed, the player is taken to the actual game and can control a mouse head sprite to gather cheese in a maze using the arrow keys. A timer allots two minutes for them to collect all the cheese bits; if you run out of time, you are transported to the “You Lose” background, and if you win, you are taken to the “You Win” background. The iterative process is having the mouse move on command by using the arrow keys, because the computer is forever running through that piece of code in order to keep the mouse going.

One of the major difficulties of creating the game was trying to have the mouse move continuously, but stop once it hit the walls of the maze. In order to accomplish this, I had to add the command to repeat changing the x position by 3 (for instance) until the sprite was touching both black and green. Then, I ran into the problem that the mouse could not be directed from its course until it hit green. The player could not deviate from the path the mouse was on until the mouse stopped, which eliminated the ability to gather all the cheese since someone could not go to certain corridors of the maze. This problem meant that I needed additional operators; I appended that the sprite needed to stop when it was: “touching green and black”, “the left arrow key was pressed”, “the right arrow key was pressed”, “the up arrow key was pressed”, and “the down arrow key was pressed”. It basically solved the problem, except that if you press two arrow keys at the same time the mouse flies across the screen diagonally.

Ian and I created the code together in order to work out problems while I took care of the backgrounds on my own and I created the sprites. It was fairly difficult, but a thoroughly interesting project that really helped me understand creating a game better.