

Synopsis

For my final assignment, I chose to simulate the gameshop Twente. The elements from the shop that can be found in my program are of course the logo and name of the store. Also there are playable games in the shop window and I tried to replicate the glass doors, which open sideways.

Usage and interactions

Doors: There are sever functionalities in my program. Starting on the main screen, you can open the doors if you hover over them with your mouse and a scary game figure will appear.

Logo: Another scaring element in my program occurs by clicking on the logo of gameshop Twente. A frightening image will appear, together with a scream sound. I tried to kind of make it seems like a horror game by doing this.

Steve character: Just another simple interaction on the store screen is that you can move around the Steve character by pressing a key.

Games: Now, the part I spent most time on. In the beginning I wanted to make many little games. That's why I wanted to display my games in an efficient way, this was however quite a time consuming process, where I also needed some help from a TA. I made two arrays, one which contains the images of the game covers and the other one the location of the covers as a Pvector. Now the process would have been a lot more efficient if I had many more games. However, due to time constraints I only made two games. You are able to play these simple games, by clicking on their game cover. The first one is a football game, where you can drag the ball and try to shoot it in the goal. The other game is played with the up and down keys, here you have to avoid the browser coming at you. I tried to add the functionality to move back to the store if you are in a game screen. This does work, but then you are not able to play another game unfortunately. I did not know how to solve this...

Architecture

Main class: In the main class, I organize that the games and shop classes are displayed and all the event handlers of other classes are at the right place.

Ball class: This class, regulates the football game. Here there are three interesting functions, the first one being the `pressMouse()`. This function makes sure that the program knows you have clicked on the ball which then allows you to move it around because of the `loadShot()` function. The function `releaseMouse()` then checks the difference of position between the current frame and previous when the mouse is released. This makes sure that the speed of the ball will be faster if you drag your mouse faster as well.

Mario class: The `cmove()` function enables the mario character to move up and down. The `moveUp()` and `moveDown()` functions are there to keep mario moving when you pressed the up or down key. The `collision()` function checks the distance between mario and bowser and stops the game if they are too close.

Shop class: This is without doubt my most important class, as it displays all of the store elements. Therefore, the biggest method here is the display method. Here, the images are displayed and all other visual elements.

Games: This class checks where on the screen the mouse was clicked and connects it with a Boolean which makes sure the correct game will be loaded.

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