Programming Module 1

Final Project

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Synopsis

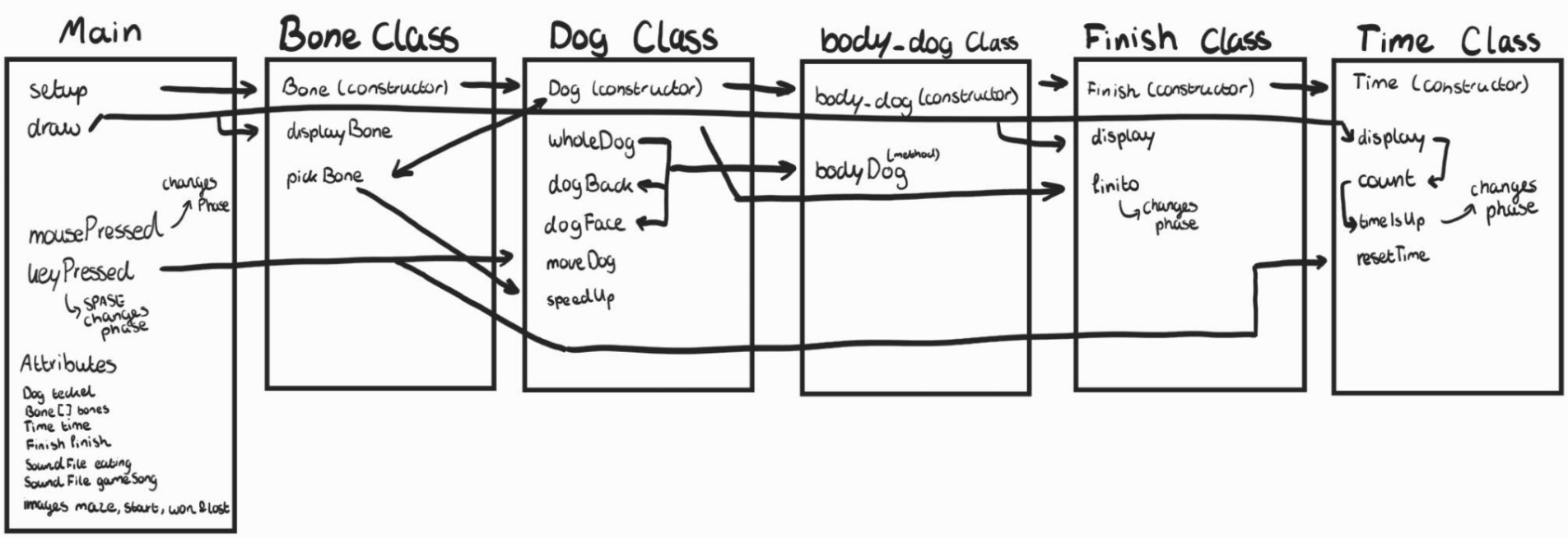
The shop window we have chosen has a lot of dachshunds (will now be referred to as ‘teckel’) on it. We decided to take this main element and make a game with a teckel. We thought it would be funny if the teckel would get longer and longer so we put the teckel in a maze where if he moves, his back legs stay at the beginning and his body just gets longer.

Usage and interaction

The main interaction comes from moving the teckel. You can use WASD to move the teckel. When you press one of these keys it checks if the color a specific amount of pixels in front of you is white. If it is, the teckel will move in that direction. It also checks if there is either the teckels own feet or a bone in front of you. If you let the teckel eat a bone his speed will increase a bit.
In the first screen you have to press a mouse button to begin the game and in the ending screens you have to press space to start the game again.

Architecture

There are 5 classes in our program. The most important one is for the teckel. It manages the display of the teckel and everything that has to do with movement. The display of the teckel needs the class body to make circles for the array that adds to the body length.
Another important class is that for the bones, it makes a bone and detects if the dog is close enough to pick it up. In the main bones a places in random places, we calculate the coordinates by dividing the width and height by the amount of cells.
Then there are the classes time and finish. Time calculates the time each round and finish draws a finish line and detects if the teckel is near it.
The whole program works in phases, the first being the starting screen. The second is the actual game. If you reach the finish you move to phase 3 and if the time runs out you move to phase 4.


Main
setup
draw
changes Phase
mousePressed
keyPressed
SPASE changes phase
Attributes
Dog tedsel
Bone[] bones
Time time
Finish finish
SoundFile eating
SoundFile gameSong
images maze, start, won & lost
Bone Class
Bone (constructor)
displayBone
pick Bone
Dog Class
Dog (constructor)
wholeDog
dogBack
dogFace
moveDog
speedUp
body_dog Class
body_dog (constructor)
bodyDog (method)
Finish Class
Finish (constructor)
display
finito
changes phase
Time Class
Time (constructor)
display
count
timeIsUp
changes phase
resetTime