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CMSC132

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Flappy Bird Project Write-up

I think what went well for us in this project was having a good plan and understanding of how the structure of this game would look before we started really coding. We set up what elements were necessary and discussed how we would meet the requirements of this project so that we don't have to implement them as we go. Also, having an Iterator in the paint method to handle the pipe, bird, and obstacle was very useful for painting new ones and for collision detection.

Something that I don't think went well was trying to figure out how to work out the random heights of the pipes while keeping the distance in between them constant. Though we were eventually able to figure it out, it took more time than most of the other aspects of the game. Also, it was pretty tough to think of places to use the inner classes and anonymous classes and have them be necessary for our game design. It took some more trial and error as this was something new for us to code in a project.

If we had more time, I think it would've been fun to implement different game modes. One example could be a game mode where there are coin elements as well and if the bird collides (collects) the coin, then their score would be double for the next pipe that it goes through. There could have also been another game mode where the pipes themselves are moving vertically, making it more difficult for the bird to pass through them with anticipation. We could've also added different settings/themes and have the elements corresponding to the theme.

There were a lot of skills demonstrated about class implementation and how to effectively and efficiently use classes/interfaces to their advantage. There are also skills in this demonstrating our knowledge of inner/anonymous classes and lambda expressions, something we haven't used in previous projects. There were a lot of new things to learn from this project such as elements such as keyListener and different aspects of the GUI and how aspects of the game get painted and visual aspects. We learned a lot about inner classes and class implementation in general as this project required us to make everything on our own and bring all the classes together in our main FlappyBird game class.

Link to video here too:

https://youtu.be/FixwEllINyc?si=5QTjfYViUDA8_quE

UML DIAGRAM:

