

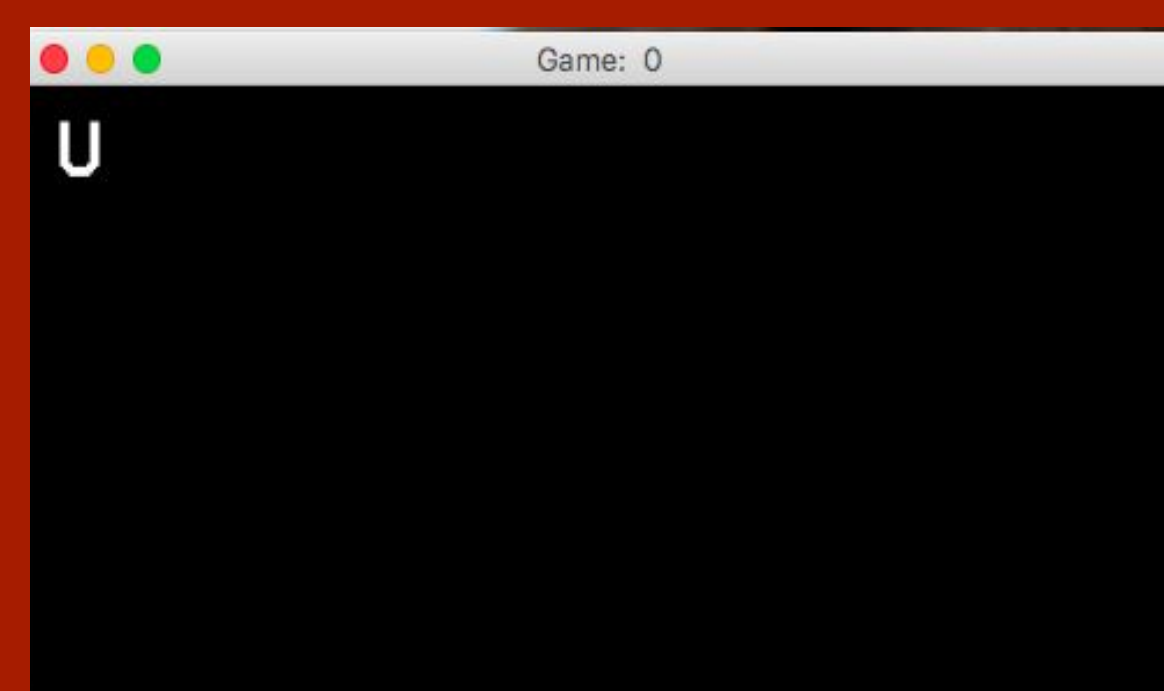


Scrolling Through Code

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In CS2, our mid-semester project was to design and implement a scrolling game expressing creative themes by transforming the provided code into individualized projects. This was our first opportunity as introductory students to code to our own creative impulses. From the basic starting files, each student built upon the provided code to implement the scrolling game basic mechanics and then freely expanded the game to have its own rules, theme, and logic. This assignment not only helped improve our coding in Java, but also launched our imaginations in programming beyond the scope of precise guidelines.

How We Got Started



Our professor provided us with a few java classes to get started.

Our first task was to get the scrolling objects to be randomly generated and to shift across the screen.



We were required to get the user object to move up and down, as well as handle collisions between the user and objects.



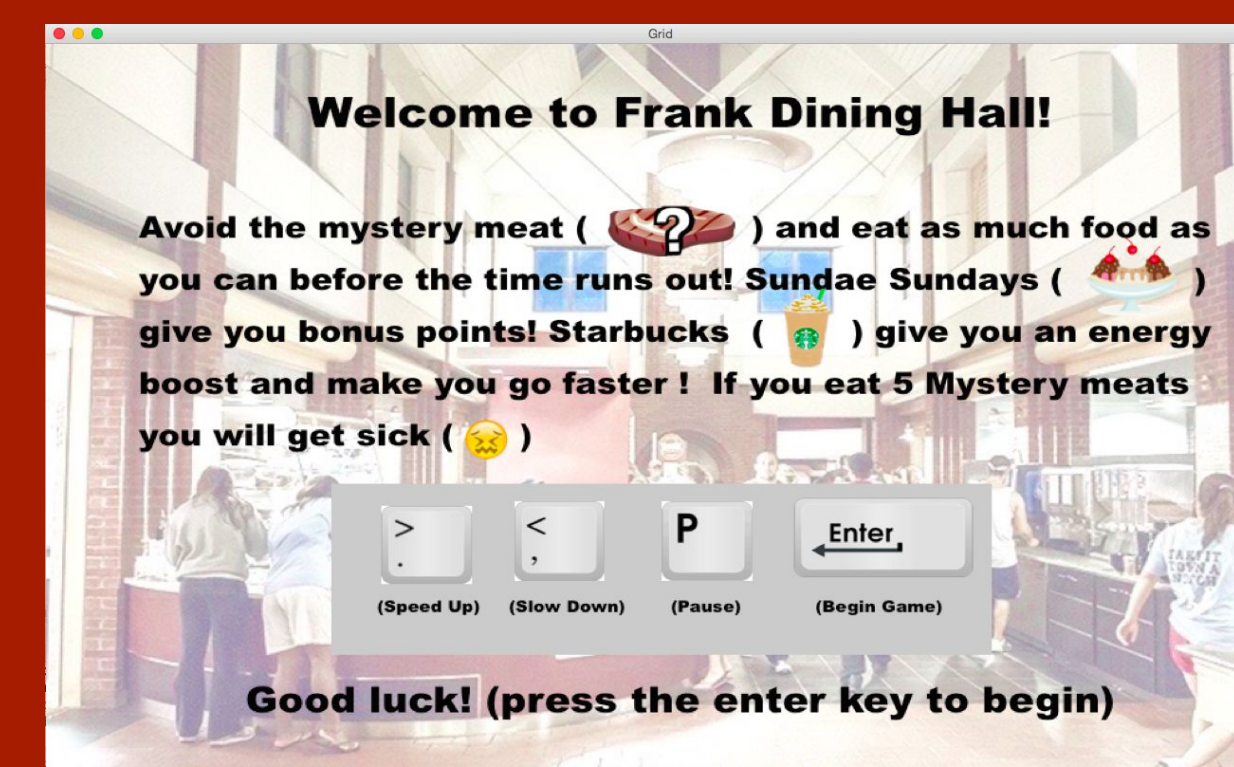
After implementing all of the basics, we implemented speed up, slow down, and pause functionalities.

Even though all students were given the same original assignment, most games turned out to be drastically different from one another. By enhancing the original code, each student developed their own theme with different images, backgrounds, special effects and extra features.

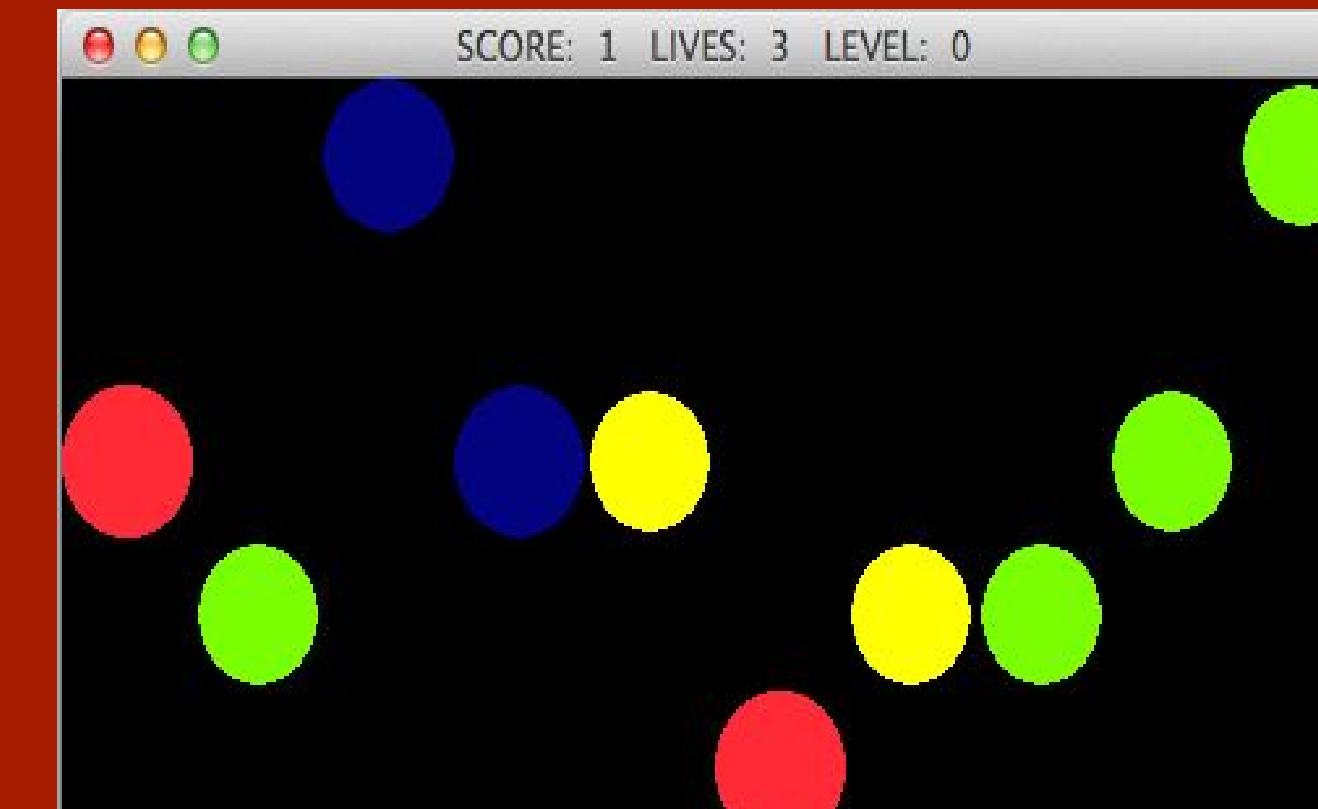
Creative Aspects

Themes

- Homescreens to introduce the user to the game

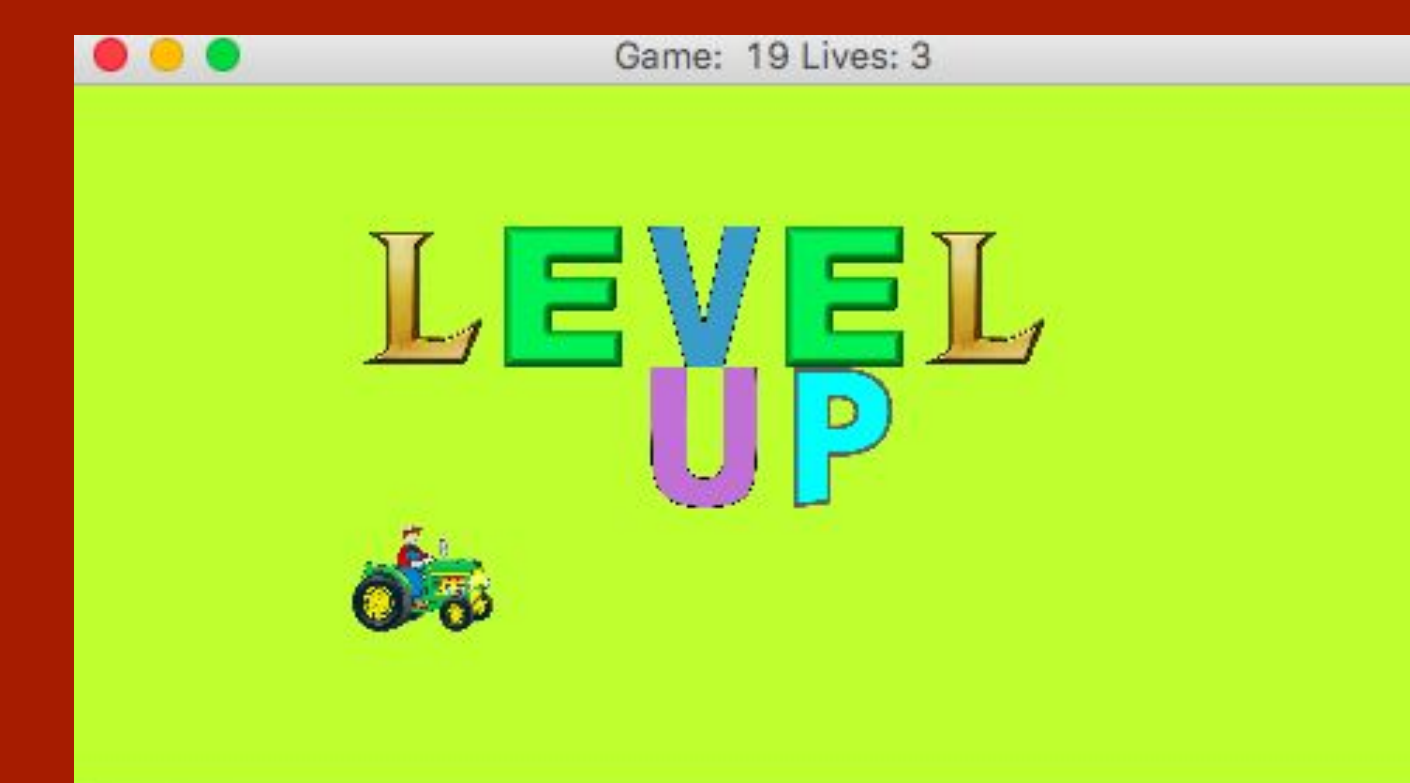


- Backgrounds and images for the user, get, and avoid icons



User Motion

- Acceleration based on levels or special keys pressed by the user
- Horizontal motion



Game Rules

- Scoring systems
- Levels
- End conditions
- Lives

Reflections

It often felt like our other assignments had a right or wrong answer. Everyone submitted similar code which all had the same result. However, this project stood out from the rest because it was so much more creative. Students were excited to work on the project and to create something unique based off of their own interests. Students worked on the project up until the deadline, not because it wasn't complete, but because they had their own initiative to constantly improve their project. Because of the amount of work and creativity that went into our games, we finished feeling very proud and excited to share what we created. This assignment not only challenged us creatively, but also showed us that we developed skills that are essential to real world applications.