Rotating Cube and Emoji Display Simulation

Description:

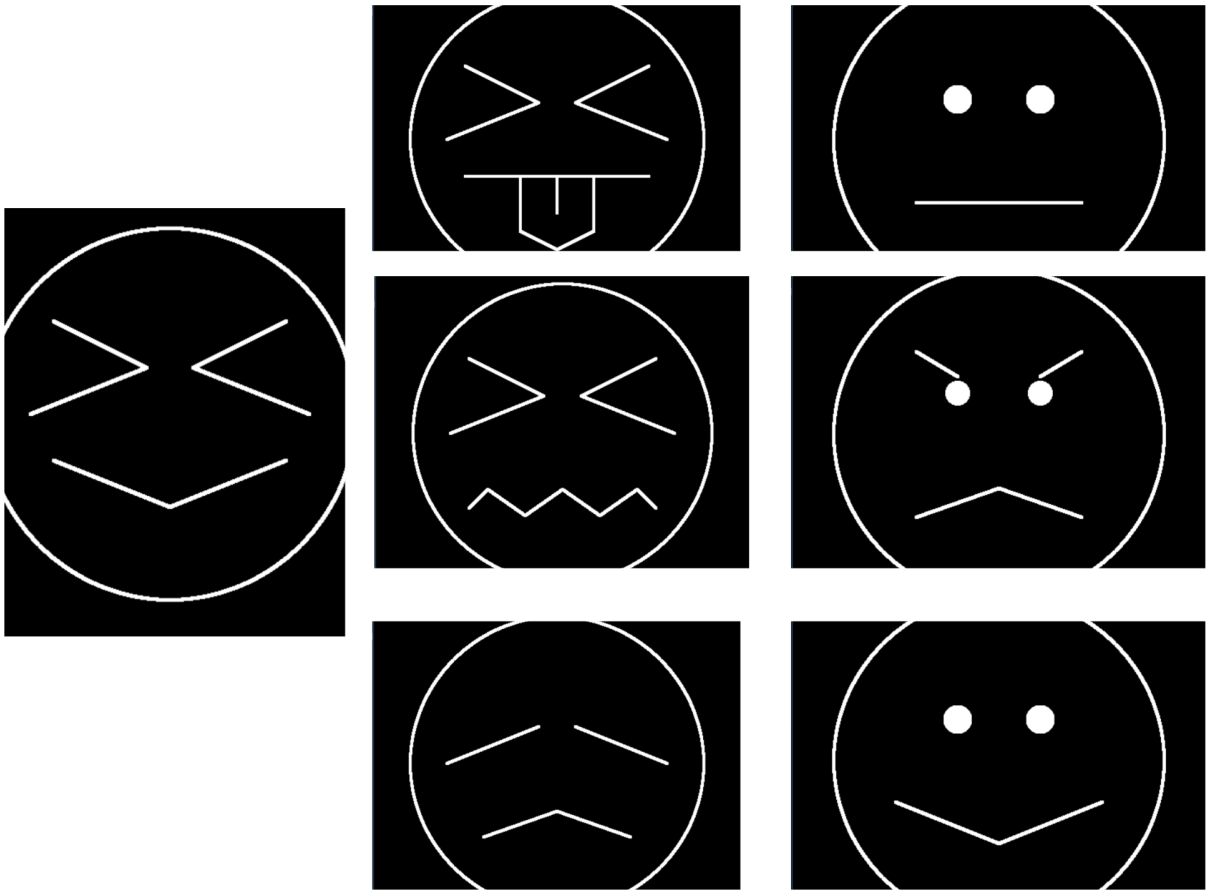
In this project, we want to do a simulation where the user enters any digit and the corresponding expression of the digit is displayed as an emoji. Also, selecting the cube's digit will reveal a cube that can be moved, made colorful, and controlled with the mouse and keyboard.

First, the user will input any digit, and the corresponding expression of that digit will be shown on the screen. Expressions can be angry, happy, annoyed, smiling, sad, no expression, etc. The other two digits correspond to a static cube and a rotating cube. In Static Cube, a colorful cube will be displayed on the screen, and the cube can be controlled with the mouse and keyboard. That is, you can move up, down, right, and left with the keyboard and zoom in and out with the mouse. And the rotating cube will continue to rotate at different angles. The emoji expression print operation is done mainly with midpoint line and midpoint circle algorithms. Here we used some basic libraries of OpenGL such as lines, dots, pygame, quads, keydown events, mousedown events, etc. to visualize the overall procedure of creating, rotating, moving, and zooming the cube. Finally, if our user gives any digit that is not in our software and the corresponding digit is not expressed in any way, the last digit of that user_digit will be displayed on screen.

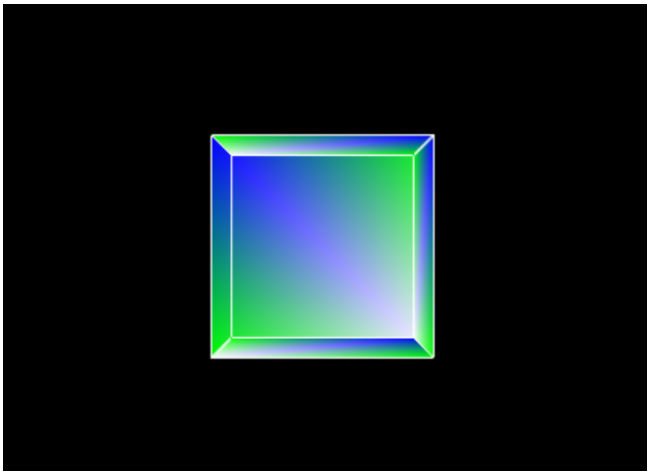
Methods:

- Midpoint Line
- Midpoint Circle
- Lines
- Quads
- PyGame
- Event

Emoji Expression:



Cube:



Rotating Cube: