SoundPlaza – Programming Final Assignment – Group 25

Names

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Synopsis

Our project is inspired by the real Sound Plaza Amsterdam storefront (Amstelveenseweg 162-A, 1075 XN Amsterdam).

We reinterpreted this music store into a fully coded interactive animation using only Processing and no imported images. In the design it is clear that we created a store with recognizable elements like the logos of Soundplaza, DUNLOP and MXR. We also recreated the pillars and surrounding of the storewindow and we used the guitars in the store as an inspiration for our guitars.

Usage and Interactions

- **Click on the Acoustic Guitar** – Plays an acoustic guitar sound and displays notes in bright colours.
- **Click on the Electric Guitar** – Plays an electric tone and displays notes in bright colours.
- **Click on the Rock Guitar** – Plays a distorted rock sound and displays notes in bright colours.
- **Animated Open Sign** – The letters in "OPEN" light up and imitate a neon flicker.
- **Press SPACE** - The colors of the guitars change and are adjusted to the type of guitar.

Each interaction combines audio and visual feedback, turning the static scene into a living, musical window.

Architecture

Main File – Soundplaza.pde - Controls setup, draw, and user input.

Key methods:

- setup() – Initializes window, sound files, and all objects
- draw() – Continuously updates and renders the full scene
- mousePressed() , keyPressed– Detects user input like clicks on guitars and triggers sound + note creation.

Guitar - Draws guitars in three color styles and defines clickable regions.

Key methods:

- displayAccoustic(), displayElectric(), displayElectric2() – Draw different guitars with unique styles.
- setColor(color c) – Changes the body color of the guitar.

Note - Defines floating notes that move upward and fade over time.

Key methods:

- move() – Updates the note's position frame by frame.
- display() – Draws the note on screen with current color and opacity.

Class Diagram from the program structure of Soundplaza: