Music Mixer

Overview of the Music Mixer

- We are making a Music Mixer that's all about having fun with creating music. It has six different instruments that play on a loop when activated. You can easily mix these instruments by dragging and dropping them, making your own music combinations. The interface is simple and easy to use, so anyone, even kids, can enjoy it. This tool not only lets you get creative with music but also helps you learn a bit about how music is made.

Key Features

- **Drag-and-Drop Interface**: Easily mix and match six different instruments with a simple drag-and-drop method, making music creation accessible for all skill levels.

- **Instrument Selection**: Experiment with a variety of sounds from six versatile instruments, allowing for musical possibilities and unique compositions.

- **Flexible Playback Controls**: Enjoy seamless music creation with play, pause, reset, and volume up/down features, and switch instruments even while others are playing for dynamic and uninterrupted composing.

What will you need?/Architecture

User Interface (UI)

- **Main Workspace**: This is the main area where users can see and control everything. It looks like a recording studio, with the user behind a recording booth.
- **Instrument Panel**: This is where users will find different instruments they can use. These instruments look like they're in a real recording booth.
- **Playback Controls**: Buttons for play, pause, reset, and volume control. These help users control the music they're making.
- **Active Audio Display**: A screen that shows when music is playing, like in a real studio.

Drag and Drop Logic

- **Drag-and-Drop Area**: Users can drag and drop instruments here to create their music. It's a big area in the middle of the screen.

- **Instrument Switching**: Users can change instruments by dragging a new one onto an old one. This happens without stopping the music.

Audio Processing

- **Sound Mixing**: The app needs to mix sounds from different instruments smoothly. This means combining sounds so they play nicely together.
- **Volume Control**: Users can change the volume of their music using sliders or buttons.
- **Playback**: The app must play the music smoothly without any interruptions.

Event Handling

- **Button Clicks**: The website needs to respond when users click buttons (like play, pause, reset).
- **Dragging and Dropping**: The website must handle what happens when users drag and drop instruments.
- **Volume Changes**: The website must react when users change the volume.

Resources/Research

Booth structure
        -https://www.shutterstock.com/image-vector/hand-drawn-music-studio-vector-llustration-2323144671

Recording studio structure / design

- https://www.youtube.com/watch?v=FYGCljz5kGc
- https://www.wickedsquidstudios.com/studios

Drag and Drop

- https://www.poptropicajunior.com/music-game/

Task Delegation (Set up deliverables in sprints)

Week 4
Sprint 1: Git Repo Set up and Planning

Task 1: Define project scope and objectives.

Task 2: Create a detailed project plan including timelines and milestones.
Task 3: Start Dev Notes in google docs
Deliverables: Project plan document, Started Devnotes, Github repo created

Week 5

Sprint 2: Design Research and Artwork Drafting

Task 1: Research Designs for the Website
Task 2: Create Wireframe for Music Mixer
Task 3: Draft Artwork (SVGs and Backgrounds)
Deliverables: Wireframe, Draft Artwork

Week 6

Sprint 3: Initial HTML, CSS and Javascript. Finalize Dev notes.
Continue editing Artwork

Task 1: Add Initial HTML
Task 2: Add Initial CSS
Task 3: Add initial Javascript
Task 4: Finish Dev notes
Task 5: Continue editing Artwork
Deliverables: HTML, CSS, Javascript and Dev Notes

Week 7

Sprint 4: HTML coding, Research and Finalize artwork

Task 1: Add necessary codes for HTML
Task 2: Finialize Artwork
Deliverables: HTML and Artwork

Week 8

Sprint 5: CSS coding and animations

Task 1: Add necessary codes for CSS
Deliverables: Functioning CSS

Week 9

Sprint 6: Javascript Coding

Task 1: Add necessary codes for Javascript

Deliverables: Functioning Javascript

Week 10 -12
Sprint 7: Testing and Debugging

Task 1: Test website
Task 2: Identify and debug issues
Deliverables: Debug Website

Week 13
Sprint 10: Check and Submit

Task 1: Conduct final website review.
Task 2: Submit Music Mixer.

Deliverables: Submit Music Mixer to FOL