

Title of the Project: Audio Player

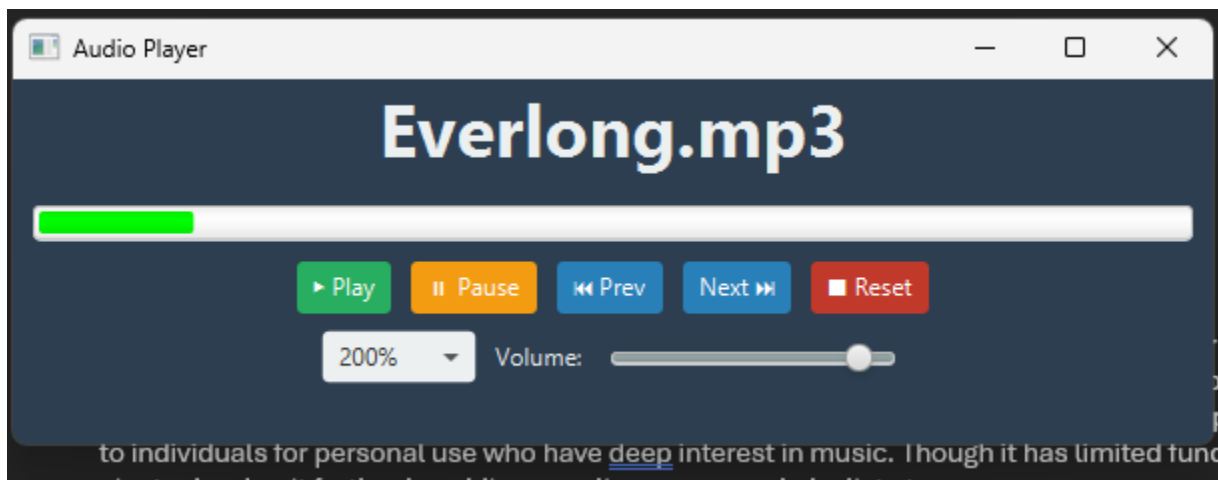
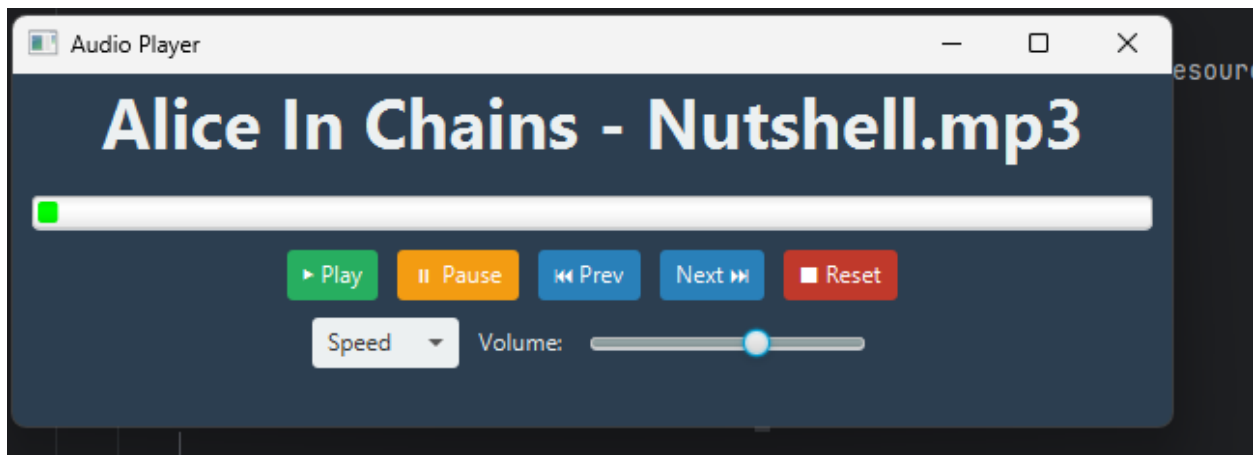
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General description

I made a simple and functional music player built using JavaFX which enables users to add their music and control it. It is a simple audio player yet fully functional with controls like play, pause, previous, next and reset. The program is also capable of controlling the speed of mp3 files and it also has basic volume controls. I have also added some colours to it to make it look more pleasing.

I am targeting this program to individuals for personal use who have a deep interest in music. Though it has limited functionality, I aim to develop it further by adding equalizers, personal playlist etc. There will be some preset EQs as well, but the users can adjust them freely on their own.
Addition

Screenshots of the UI:



Project Evolution

I started the project with a concept of making a basic audio player with only play, pause, stop functionality. I added the functionality over time. The main challenge was to handle the media state transitions effectively and ensure smooth user interactions. I started by drafting a UI in a paper. Then I started building the GUI using SceneBuilder. Then AudioController class was linked to the FXML file to handle user interactions and media functionality.

The MediaPlayer class from JavFX is used to play, pause and manage audio files. Additional functionalities, such as volume control, speed adjustment, and progress tracking, were added and refined over time. I then tested the program to ensure everything was running as it should.

Usage Instructions

1. Unzip the folder
2. Open the desired IDE and open the extracted folder in IDE.
3. Navigate to Main.java and run it.
The UI should open now. There are currently three songs in the music folder. The user can add more songs in this folder or play these songs.
4. Use Play Button to start playing a track, pause button to pause playback; adjust volume with the slider and change speed with speed dropdown. Users can also navigate between the songs with the next and previous buttons.

Self-evaluation

The program runs smoothly once the right dependency is added. It took me a while to figure that out. Besides, everything went as planned. The major strength of this program would be simple and easy to use UI. One feature that I would love to have is loop and shuffle modes which I look forward to add in the future

Further development

Since this is a basic program, there are lots of ways to develop it. I would like to have equalizer settings in it, where there will be preloaded EQs, but it can also be changed by the user. Another functionality I would like to add is drag and drop support. It would enable users to add new songs easily. I look forward to developing it more and more.