



Cairo University

Faculty of Computing and Artificial Intelligence

Object-Oriented Programming
A-2

Second year

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2025

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work breakdown

Name	Task
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The repo

Mohamed-Ayman333 / sound_player · Private

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Files

main

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sound_player/Source

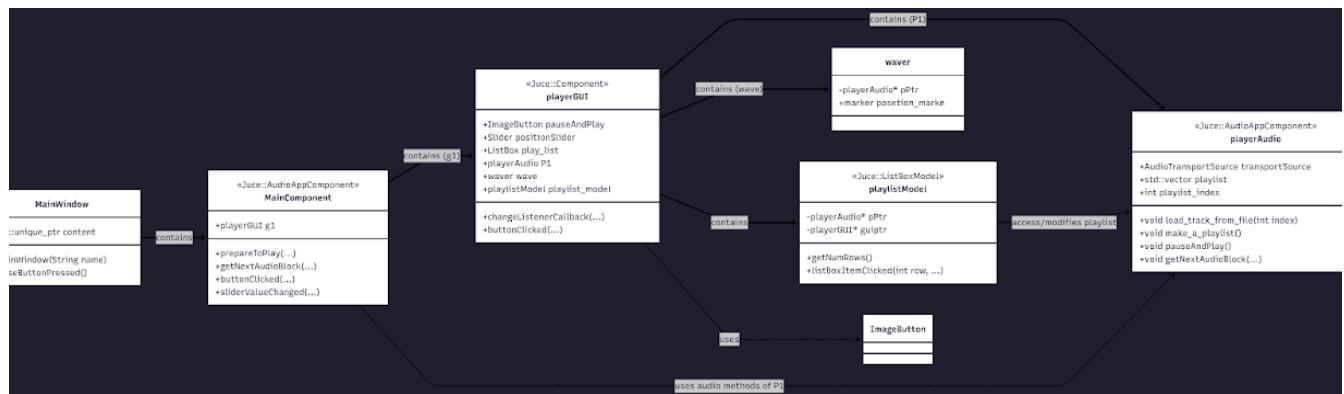
- ..
- icons
- Main.cpp
- MainComponent.cpp
- MainComponent.h
- PlayerAudio.cpp
- PlayerAudio.h
- PlayerGUI.cpp
- PlayerGUI.h
- .gitattributes

Add file ...

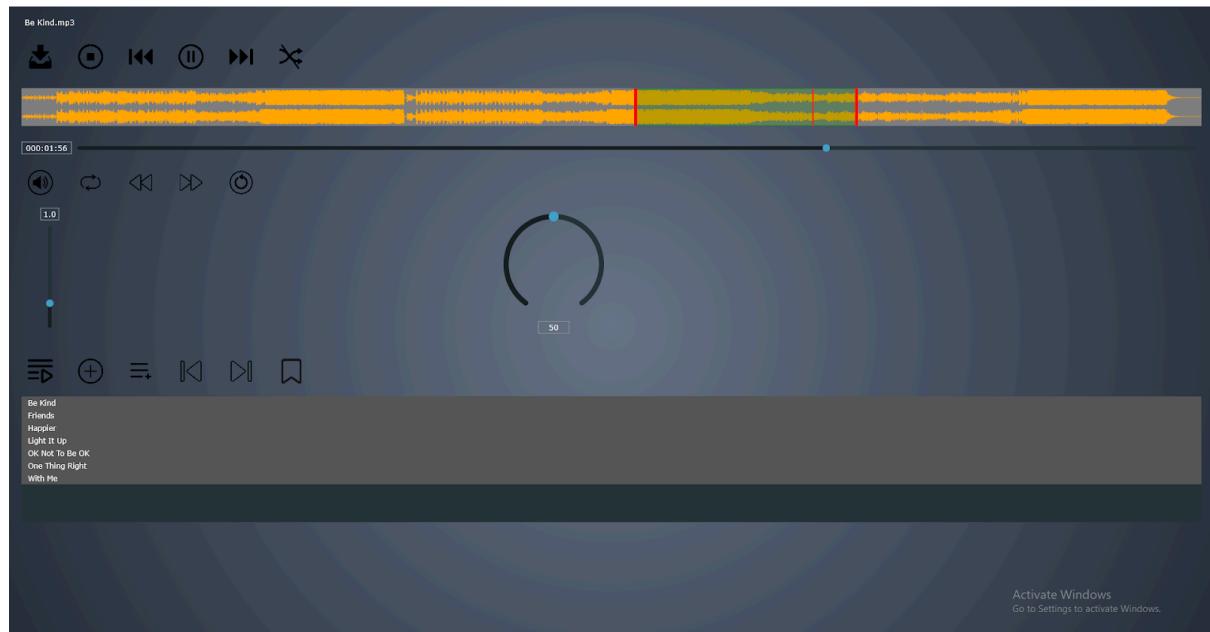
Mohamed-Ayman333 fix+ 24e3816 · 54 minutes ago History

Name	Last commit message	Last commit date
..	s	2 hours ago
icons	gui edit	2 days ago
Main.cpp	fixes	2 hours ago
MainComponent.cpp	fixes	2 hours ago
MainComponent.h	fixes	2 hours ago
PlayerAudio.cpp	fix+	54 minutes ago
PlayerAudio.h	fixes	2 hours ago
PlayerGUI.cpp	fix+	54 minutes ago
PlayerGUI.h	shuffle added	4 hours ago

The system breakdown diagram



The running code



The Video

Our Classes

SimpleAudioPlayer: the app class

MainWindow: the app`s window

MainComponent: the main component of the app

playerGUI: the component for Grafex-related stuff

Waver: a class for drawing the audio`s waves

Marker: a marker that appears on the wave

playlistModel: a model for the playlist`s list box

marklistModel: a model for the markers` list box

playerAudio: the component for managing the audio

“ A PIE ”

Abstraction: we used abstraction to break the app into small general parts like (marker, waver,playerGUI)

Polymorphism: We used Polymorphism to override the functions in the base classes in the Juce library

Inheritance: we used inheritance on the Juse classes to get the functions necessary for the project

Encapsulation: we used encapsulation to combine all the functions and their related data in one class, like in (playerGUI)