PROJECT PROPOSAL

MP3 player for Windows using Java

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Project Title:

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Introduction:

The purpose of this project is to use Java Development Kit to develop an MP3 music player for the Windows operating system. An interactive window will be used by this program to play, pause, and switch among MP3 files. The objective is to produce an MP3 player that is simple to use and offers users a fluid audio playback experience.

Objectives:

The primary objective of our music player app project is to develop a high-quality, user-friendly, and intuitive music player app for Windows operating system using Java programming language. Some specific objectives of our project include:

1. *Providing users with a comprehensive and enjoyable music listening experience:* We aim to provide users with a range of features, including the ability to search for and play their favorite songs, create and manage playlists, and adjust the volume to suit their personal preferences. Our app will also include an automatic sleep timer feature that allows users to set a specific amount of time after which the music will stop playing.
2. *Developing a user-friendly and intuitive interface:* We will design our app with a modern and sleek interface that is easy to navigate and provides users with a seamless and enjoyable music listening experience.
3. *Ensuring the app is responsive, reliable, and fast-loading:* We will prioritize app performance and reliability, ensuring that the app loads quickly, operates smoothly, and does not crash or freeze during use.
4. *Ensuring the app is compatible with a wide range of audio file formats:* We will ensure that our app is compatible with a wide range of audio file formats, making it easy for users to enjoy their music library without having to worry about compatibility issues.
5. *Creating a scalable and extensible app architecture:* We will ensure that our app architecture is designed to be scalable and extensible, making it easy to add new features and functionalities in the future.

Overall, our objective is to create a music player app that provides an enjoyable music listening experience for users, with a modern and user-friendly interface, reliable performance, and compatibility with a wide range of audio file formats. We are confident that our app will meet the needs of music enthusiasts and provide a comprehensive solution for music listening on Windows operating system.

Motivation of Our Project:

Music is an integral part of our lives, and it has the power to bring joy, relaxation, and inspiration to millions of people around the world. As more and more people are turning to digital music players and streaming services, there is a growing need for high-quality music software that is not only easy to use but also offers a great user experience.

This is where our project proposal for a music playing software for the Windows operating system comes in. Our goal is to create a software that not only plays music but also provides users with a range of features that will enhance their overall listening experience. Our software will be designed to provide a simple, intuitive interface that is easy to navigate, even for users who are not tech-savvy.

Along with the basic functionalities like play, pause, navigating through songs, our music playing software will also have a range of advanced features that will allow users to customize their listening experience. This includes a sleep timer that will allow users to turn off the music automatically after a certain period of time, as well as a playlist feature that will allow users to create custom playlists for different moods or occasions.

Requirements of Our Project:

➢ **Story Identifier:** AAUS001

Story Name: Navigation in directories

Description: As a music lover, I need to be able to easily search for and play my favorite songs, so that I can listen to them anytime I want.

Acceptance Criteria:
- Functional-
    1. Can I navigate to the folders where my favourite song is?
    2. Can the player play the song as soon as it is selected?
- **Non-Functional-**
    1. Can the player start the selected song within 2 seconds?
    2. Can the music player keep track of the directory?

➢ **Story Identifier:** AAUS002

Story Name: Timer

Description: As a music listener who enjoys falling asleep to my favorite songs, I want to be able to set a sleep timer in the music player app, so that the music automatically stops

playing after a set amount of time, allowing me to drift off to sleep peacefully without having to manually turn off the music.

Acceptance Criteria:
- **Functional-**
    1. The app should have a sleep timer feature that can be accessed from the playback controls.
    2. Users should be able to set the sleep timer for a specific amount of time, such as 15, 30, or 60 minutes.
    3. When the sleep timer expires, the music should stop playing automatically.
    4. The app should provide a confirmation message to let the user know that the sleep timer has ended and the music has stopped.
    5. The sleep timer should work with any song or playlist that the user is currently playing.
- **Non-Functional-**
    1. The sleep timer feature should be easy to access and use, with clear and concise instructions for setting the timer.
    2. The app should be reliable and not crash or freeze when the sleep timer is active.
    3. The sleep timer should not negatively impact the app's performance or cause any lag or slowdowns.