Karaoke System Application for Android

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Abstract – **Nowadays in the era of mobile devices, the world needs smart applications that are easy to use and very effective in the end. Android is the one of the popular mobile application platform these days which we have used. The main objective is to create an Android Application for playing Karaoke, which will offer a very feature-rich experience. This project is to create an application that will play a song present on an Android Device in Karaoke format. A karaoke of a song is the instrumental form of that song, in which the vocal track sung by the singer is suppressed to lower dB frequency. So, only the background beats and the orchestras remain audible. The app will also be able to search the Internet so as to find the lyrics of the song being played at that time, if it is available in the site's database. Hence, the android device user will be able to sing along with the Karaoke by watching real time lyrics. Also, the user will be able to record his singing and save it in the device, as his own version of the song.**

Keywords - Android, Karaoke, Lyrics, Record.

I. i. INTRODUCTION

This project is to create an application that will play a song present on an Android Device in the Karaoke format. A karaoke of a song is the instrumental form of that song, in which the vocal track sung by the singer is suppressed to lower dB frequency. So, only the background beat and the orchestra remain audible.

The app will also be able to search the Internet so as to find the lyrics of the song being played at that time, if it is available in the site's database. Hence, the android device user will be able to sing along with the Karaoke by watching real time lyrics.

The software being used for development is the Android development kit which is a plug-in to the Eclipse IDE.

The Karaoke System Application for Android can be operated on android version 2.3 and above. It provides quite good features and excellent pass-time experience. It also provides very simple GUI (Graphical User Interface) which decreases the complexity of the application to use it.

This application, as mentioned earlier, also provides the facility of real time lyrics searching over the Internet through the Android device. Nowadays each Android device comes with a secure Wi-Fi connection that provides instant internet establishment with possible 3-G facility. This feature makes the application more unique and entertaining.

I. ii. EXISTING WORK

Currently, there are a few applications in Android platform that provide the facility to search the Internet for lyrics of the song. They can also play that song and display lyrics at the same time.

But none of these applications can have access to the lyrics of all the songs. They only can access the lyrics of one or two databases at the most.

Also, none of these applications can provide the ability for real time singing and recording. The basic agenda of all the currently available android applications in this field is related only to finding the lyrics and displaying it.

II. i. PROPOSED SYSTEM

Our project, the Karaoke System application, proposes the following features –

1. Ability to play the Karaoke songs in the Android device's database.
2. Ability to fetch the lyrics of the Karaoke song being played and displaying it simultaneously.
3. Ability to Record the user's own version of the song and merging it with the Karaoke.

II. ii. RESULTS OF CURRENTLY DESIGNED SYSTEM

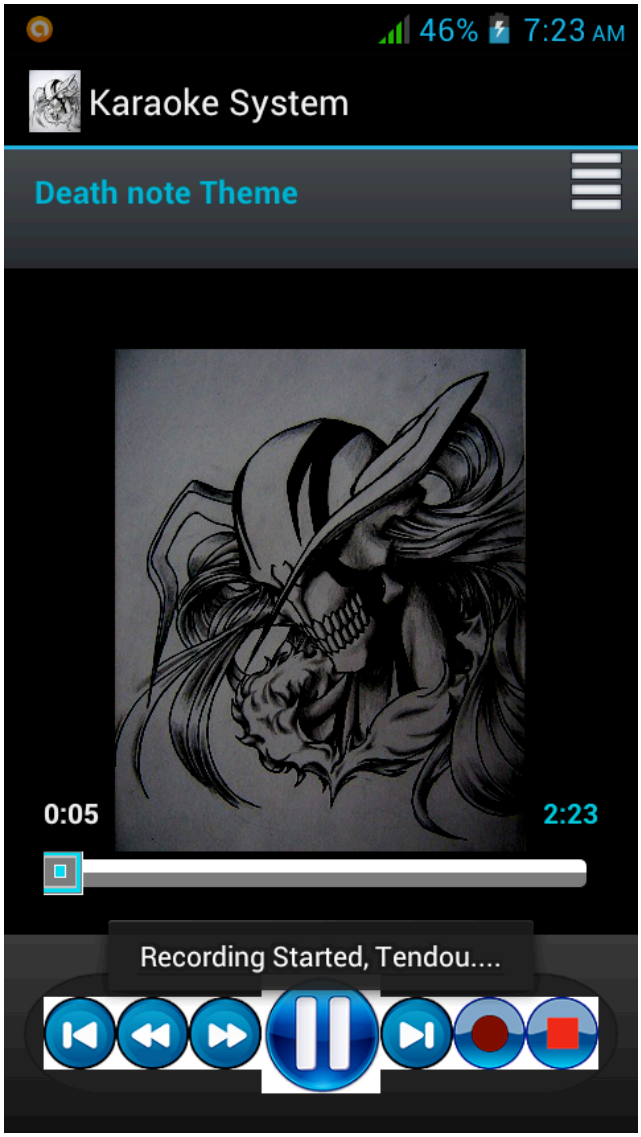


Figure 1.1 : Snapshot of Karaoke System(Start Record)

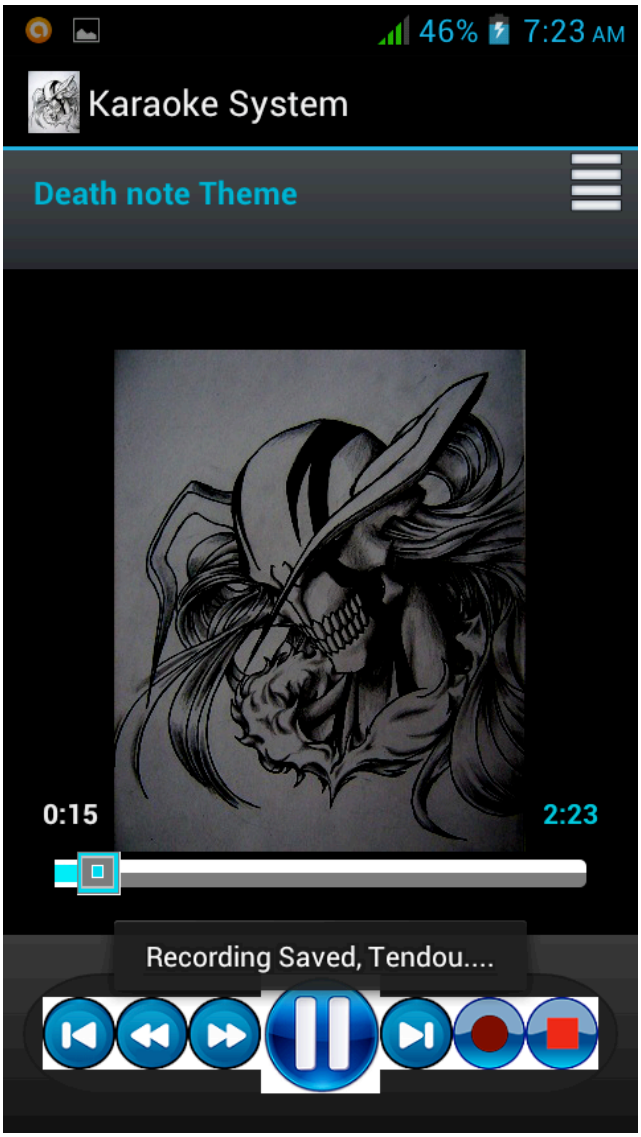


Figure 1.2 : Snapshot of Karaoke System(Save Record)

II. iii. FLOW OF THE APPLICATION

On entering the application the welcome screen would be displayed. This screen would simply have the application name, logo & the menu list. Then user can perform the features as being shown in the UML model-

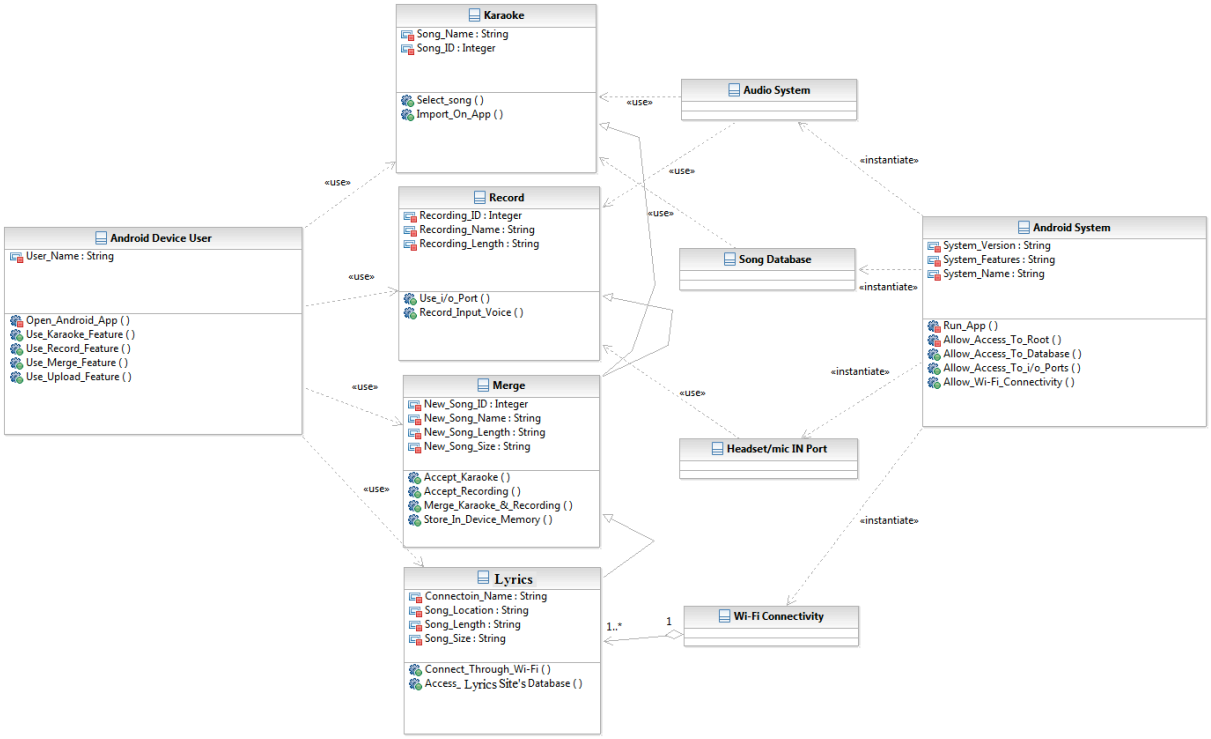


Figure 1.3 : Flow of Karaoke System Application

III. FEASIBILITY

Complex Classes :-

S= {Q, R, C, Is, Fs, L, A}

Where
S is System
Q is input
M is menu driven input command
R is result that is output
C is set of all commands.
Is is the Input State
Fs is the Final State
A is set of alphabets used

Initial condition :-

Q=NULL
R=NULL

this indicates that for no input command there would be no output.

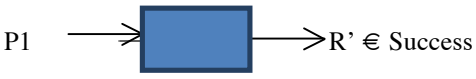
M=NULL
R=NULL

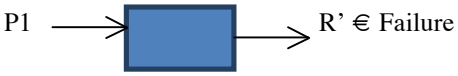
this indicates that for no input menu driven command there would be no output.

Intermediate Condition :-

Q=P1
R=R'

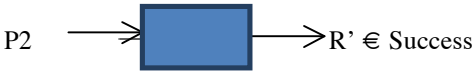
this indicates that for a given command (P1) either a valid or invalid input(Failure) would be the
result.

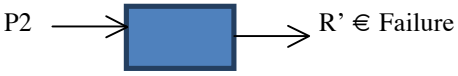




M=P2
R=R'

this indicates that for a given command (P2) either a valid or invalid input(Failure) would be the result.





Final Condition :-

Q=NULL
R=R1'

where R1' is the stop command.
M=NULL
R=R1'

where R1' is the stop command.

V-set of all commands

V={v1,v2,v3…..v10}

Here v1-v10 are pre saved command templates.

D=m*13 matrix

The database having pre saved commands.

A-set of alphabets
A={C}
C is to indicate giving Commands

Is : Input State

(P1=Null) ^ Vi
Vi: Indicating start
P1=NULL indicates no input
When the application begins there is no input given
There is only a button present to insert input.

(P2=Null) ^ Mi
Mi: Menu driven indicating start

P1=NULL indicates no input via menu driven commands on screen.

When the application begins there is no command given

Fs : Final State

(P1=Null) ^ Vj
Vj: Conversion stop
P1=NULL indicates no input on screen

When the application exits there is no input given.

(P2=Null) ^ Mj
Vj: menu driven indicating stop
P2=NULL indicates no input via menu driven command on screen

Failure State:

P1 ^ R'(NULL)

Invalid input that is the input could not be converted by the app.http://en.wikipedia.org/wiki/Karaoke

IV. FUTURE WORK

The future research in the application includes the implementation of the ability to remove vocals from any song present on the Android device and saving that on the device's SD card.

V. CONCLUSION

The Karaoke System app is a unique perspective of entertainment and a feature-rich experience for music lovers.

With the additional lyrics-sing-record feature, the app proves to be one of a kind in the field of android application development.

VI. ACKNOWLEDGMENT

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