Report English Project :
English Pop Karaoke

Names

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Course : English class

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Date : Friday, April 1 2016

Contents

User guide for EnglishPopKaraoke application

1 - General information

1.1 Purpose of the application

EnglishPopKaraoke is an application that allows to choose from a multitude of songs that you want to learn to sing and tells you how to sing it. It also allows for karaoke playlists, for example, ignite your parties with friends .

This application was made in the context of the 2nd year of engineering school Telecom Nancy. It is intended for students and teachers of Telecom Nancy.

It is obvious that this application is not satisfactory for use in the professional field but it is perfect for students at various parties.

1.2 Files .kar

This app uses .kar files to run. These files are karaoke files. A file .kar contains the lyrics of a song and the lyrics timers . So it handles the good scrolling lyrics with time. You must know that is possible to find and download this kind of files on the Web. Most of these files are not free. However, one can find free files with many known songs.

1.3 Necessary computer configuration

This application runs on Window , Linux and Mac OS X, and simply requires the installation of the Java Virtual Machine (and JDK's version 1.2 minimum).

1.4 Licence

This application is free usable and modifiable, it is a open-source software published under GPL Licence.

2 - Installing and uninstalling

2.1 On Mac OS X and Linux

To install this application, simply download the Git repository on GitHub.

2.2 On Windows

Same thing that above.
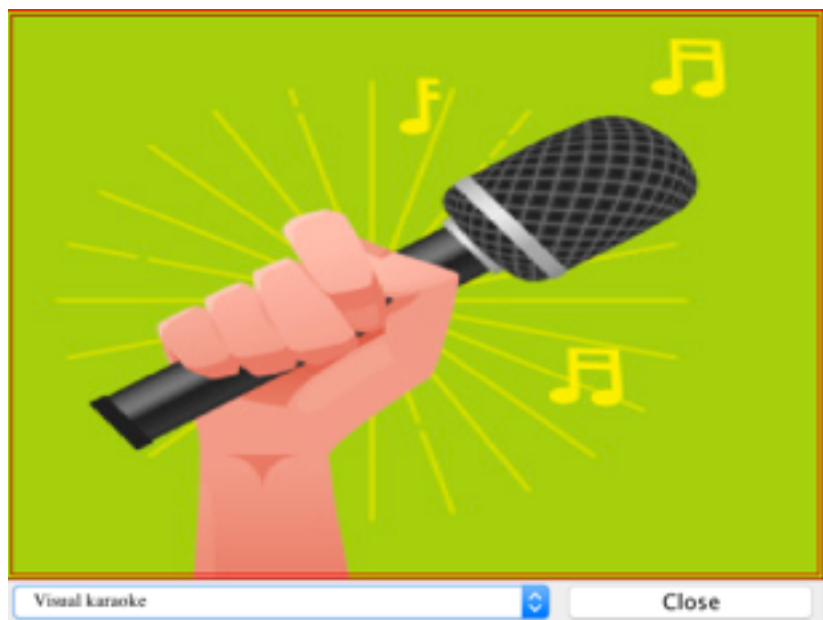
3 - Execution

3.1 On Mac OS X and Linux

Run « java -classpath . EnglishPopKaraoke.InteractionEnglishPopKaraoke » on a terminal or use Eclipse IDE (or an other java IDE).

3.2 On Windows

Use Eclipse IDE (or an other java IDE).

4 - Commands

4.1 On the Karaoke window

On this window, there is a dropdown menu with 4 options : Lyrics, StopWatch, Visual karaoke and KaraokeList.

- Option 1 : Lyrics

This displays the title , the author / composer of the song and the lyrics. Simply scroll up and down to see all the words.

- Option 2 : StopWatch

When the song starts, the timer starts. With this option, we can see the duration of the song since the beginning in real time.

- Option 3 : Visual karaoke

This displays the lyrics of the song in real time with scrolling indicating when you need to sing or not. It is the option that is most used in your use because it is the basis of any karaoke.

- Option 4 : Karaoke List

This option displays the exact moment when the words (syllabes) have to be sang. This is a great way to know the length of pronunciations to deepen the knowledge of the song.

The « close » button is just to quit this window without quit the application.

4.2 On the library window

This window contains the various buttons play , stop, next and previous songs . It also contains the list of songs that can be read and the buttons to add or delete songs from the list.

Finally, there is also a button to open a new karaoke window and a button to exit the application.

5 - Using examples

5.1 Play a song

To play a song, select the button « add » and find find the sounds folder of the app and click on the song you want to play. Then, click on the link appeared and play start. Enjoy it.

Now, you have the choice of the four options in the karaoke window and choose what you want.

5.2 Create a playlist

If you want to do a playlist, click on button « add » several time and select an new song each time. The songs are added to the list and the words are added following the first songs.

6 - Limitations of the app

The goal was to recreate a kind of « Don't forget the words » but it has proven difficult to replicate it because of the management of karaoke files. Indeed, to stop the lyrics of a song, by suggesting a word list without showing missing words after the sentence, is outside our skills. So, this application is a simple karaoke with songs of English pop culture.

7 - Known issues

We have met a single problem but we don't know why it was produced. It seems that some files are unable to be read and raise an exception that prevents the application to run . This remains a very rare problem because most of the files work.

Conclusion : Sing , wow the crowd with your voice , alone or with friends, wake up the rock star in you. Enjoy !

Technical documentation

Nous avons choisi pour notre application d'utiliser le langage java pour deux raisons :

. La première est que c'est un langage que nous maitrisons, ce qui nous a permis de gagner du temps sur l'implémentation de notre application.

. La deuxième est que nous devons récupérer des fichiers .kar pour le karaoké et grâce à l'API de java nous avons pu les traiter.

En ce qui concerne l'interface graphique nous avons utilisé l'API JavaSwing qui reste assez simple à utiliser et basique en exploitant le système de boutons.

Fichiers .kar

Un fichier .kar est un fichier de karaoké qui contient deux choses :

. un fichier audio au format MID

. un fichier texte comprenant les paroles de la chanson

C'est dan la classe EnglishPopKaraoke.GestionKaraoke.AudioPlugins.MidiKar2.java que nous chargeons dans notre application les fichiers musicaux et textes.

Cette classe permet de faire correspondre les paroles et les événements temps associés, ce qu'on affiche dans la window Karaoke List et qui aurait pu nous servir fortement pour continuer notre application pour faire un « Don't forget the words ». En effet, en sachant à quel mot correspond quel temps nous aurions pu couper plus aisément la musique en sachant où l'on se situait dans la chanson.

Interface graphique

Pour l'interface graphique, nous l'avons découpé en deux fenêtres principales. La première qui gère la librairie de chansons et la deuxième gérant l'affichage du Karaoké.

Comme dit précédemment, nous avons utiliser l'API JavaSwing. Pour l'affichage du Karaoké nous avons 4 fenêtres en tout qui sont des Vectors, c'est-à-dire qu'on peut sélectionner à partir d'un bouton multi-fonctions quelle fenêtre on désire (chronomètre, karaoké, paroles, Karoke List).

Diagramme UML

Attachements

Sources :

http://stackoverflow.com/questions/18119507/reading-lyrics-information-from-a-kar-file-in-java

http://www.javaprogrammingforums.com/java-theory-questions/20784-karaoke-player.html

http://fileid-2696.hargaponsel.info

http://www.jmdoudoux.fr/java/dej/chap-swing.htm

http://perso.telecom-paristech.fr/~elc/swing/JavaSwing.pdf

If you want to download other files .kar, here is a website :

http://www.acroche2.com/kar_b1.html