

KARAOKE MACHINE TOOL

MOHD AIEZATT DANIAL B RAMIZAN

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Signature :
Name : PROF.ABD HAMID HAMIDON
Date :

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ABSTRACT

Karaoke is one of the popular entertainments among people all over the world. The problems of having one's own karaoke set at home is the limitation of space for storing karaoke Compact Disc (CD) or Digital Video Disc (DVD) and difficulty in finding the required karaoke CD or DVD. Besides that CDs and DVDs easily damaged. This project is to design a Graphical User Interface (GUI) that will enable the user to index and play karaoke songs easily. The user must first load the karaoke songs to an external storage device. The device is then connected to a computer via Universal Serial Bus (USB). Next the GUI program will then ask the user to register the songs into a database. After registering the songs, the GUI will then display all the songs stored in songs title alphabetical order according to language and gender of the singers. The GUI will then play the songs that the user has chosen.

ABSTRAK

Karaoke merupakan salah satu daripada bentuk hiburan yang terkenal dikalangan penduduk diseluruh dunia. Antara masalah yang dihadapi jika mempunyai set karaoke sendiri di rumah adalah kekurangan tempat bagi menyimpan cakera padat (CD) atau cakera video digital (DVD) karaoke dan susah untuk mencari CD atau DVD yang di kehendaki. Selain itu CD dan DVD juga mempunyai kelemahan yang tersendiri iaitu ia mudah rosak. Untuk itu, projek ini adalah untuk mereka cipta antaramuka pengguna grafik (GUI) yang membolehkan pengguna menyusun dan memainkan lagu karaoke dengan mudah dan cepat. Apa yang perlu dilakukan oleh pengguna adalah memasukkan semua lagu karaoke ke dalam unit storan mudah alih. Kemudian unit storan mudah alih tersebut akan disambungkan ke komputer melalui pangkalan USB. GUI akan lebih dahulu meminta supaya pengguna mendaftarkan lagu-lagu tersebut dan kemudian akan menyimpannya ke dalam pangkalan data. Setelah selesai mendaftar, GUI akan memaparkan lagu-lagu tersebut dalam susunan abjad tajuk lagu mengikut bahasa dan jantina penyanyi. Akhir sekali GUI akan memainkan lagu yang dipilih oleh pengguna.

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CHAPTER 1

INTRODUCTION

1.1 Project Introduction

Karaoke is one of the popular entertainments among people all over the world because it is a way for people to have fun after a whole day of stress working. Karaoke is a form of interactive entertainment in which the singers sing along with music via a microphone. The music is from a well known song without the lead vocal. Lyrics that changed colour will be displayed on the screen in order to guide the singer while singing the song. Basic karaoke machine tools consist of a music player for playing the karaoke songs, microphone input and an audio output.

Early karaoke machines used video cassette tape called Video Home System (VHS), but as technology became more advanced it has been replaced by Compact Disc (CD), Compact Disc digital Video (VCD), laserdisc and Digital Video Disc (DVD). Since 2003 many software's had been released for hosting karaoke and playing the karaoke directly through a personal computer or notebook. The problem with most of the software for playing the karaoke songs through a computer is that it is less interactive and difficult to use. This is one of the reasons why people still prefer to go to karaoke places.

The other reasons that are, a karaoke places have better audio systems, will not disturb the neighbourhood, and have facilities that are not available with a home karaoke system. Among the difficulties faced when having own karaoke set at home is that it should be placed in a sound proofed room. It also requires a large space for storing karaoke CDs and DVDs collections.

This project is to design a software based on the Graphical User Interface (GUI) technology, which enable the user to index and play karaoke songs easily. The software contains a database to store all of the information required. The software is then programmed to display all the songs stored in an external storage device listed in alphabetical order of the songs title according to language and gender or type of the singers. The software is also programmed to play the selected song chosen by the user.

1.2 Problem Statement

There are several problems focuses in order to develop this project:

- The CDs and DVDs must be carefully taken care of. If not it will easily damaged and cannot be read by the CD or DVD player.
- Limitation of space to store karaoke CDs or DVDs collection. For someone who loves to karaoke, they must have a lot of karaoke CDs or DVDs in their collection. So it needs a specific placed for example a rack to store so that it can easy be find.
- Difficult to find the CD or DVD that want to play and this will consume time to find it. This happen when the CDs and DVDs is not well organize.

1.3 Objectives

The objective of this project is to design user friendly software based on the Graphical User Interface (GUI) technology that enables the user to index and play karaoke songs directly from an external storage device easily.

1.4 Scopes of Work

The scope of this project is to develop the software using visual basic 2010. The development is from testing the software until applying the software for playing the karaoke songs. In the development process of the software it was divided into certain part. The first part is creating a database that will store the required information given by the user. The first step in creating a database is identifying the type of database that will be used and after that the designing of the database in term of the information and type of information that will be stored in the database. Lastly on this part is to apply the database into the programming.

The second part of the programming process is to use all the information stored in the database to do indexing. First of all the information stored in the database need to be recall then by using certain information the karaoke songs are classifies according to language and gender or type of the singers. After that the songs are list in song title alphabetical order. Lastly on this part is to display the list in the software

The last part of the programming is to display the chosen song selected by user. First, the information stored in the database need to be recall then the file location of the selected song by user will be identified by the software. After that it will play the song selected directly from the external storage device. During the designing and programming processes, each part of the software programmed is tested first. If there is no problem occur during the testing process each part of the programmed software will be combine so it will become one complete software. Lastly the completed version of the software will be tested once more to make sure it works correctly.

1.5 Thesis Structure

Generally this thesis consists with five main chapters. First it is start with an Introduction then followed by Literature Review, Methodology, Results and Discussion and end with Conclusion and Recommendation.

In the first chapter, it explains the introduction of the project, problem statement, project objectives and scope of works. On the second chapter it is about research, findings and observations have been made or conducted according to the topic that related with the project especially on programming in visual basic 2010. Every facts and information which are found from any source will be compared and the better solution will be chosen based on the information obtained. The third chapter is about project methodology. It consists studying of the project and process or step taken in order to programmed the project. Result and Discussion chapter it contains the result obtains trough the project and discussion of the problem or progress of the project.

The last chapter conclusion and recommendation contains a suggestion of future works that can be done in order to continue the development of this project or to upgrade the current project.

CHAPTER 2

LITERATURE REVIEW

2.1 Karaoke History

Karaoke is one of the popular entertainments among people all over the world. The words karaoke comes from combinations of two Japanese words: “Kara” from karappo meaning empty and “Oke”, an abbreviation for “Okesutora” meaning orchestra. It is a form of interactive entertainment in which singers can sing along with the music by using microphone with a guide of the lyric that change colour as the music is played. The music use is typically a well known song without the lead vocal.

Before karaoke was invented, a non professional singer’s only can sing with a request for instrumental accompaniment. The first born of a karaoke machine which is invented by Yamachiku is a juke-boxes connected with a microphone. The limitation of this first model of karaoke machine was it can only contain limited number of songs. The typical capacity was 100 singles that is 200 songs at most. Beside that it was bulky, taking up a lot of space, and the pace of wear and tear on record grooves and needles was significantly faster than that of tapes. Then in August 1972, victor had invented a phase-reversing mechanism called ‘Vocales-Function’ which installable in the juke-boxes. From this invention, it had lead to the manufacture of a new product called ‘Bandwagon’.

The advantage of this product is it moveable, smaller juke-box equipped with 100 singles. The audio tape and deck appeared on the Japanese market in late 1950s.



Figure 2.1: Inoue Karaoke Machine invention

Figure 2.1 show the karaoke machine invented by Inoue and his colleagues. As in figure 1, it was featured a built in coin timer and microphone mixer with reverb echo mechanism, which has been another characteristic of karaoke ever since, and first set of accompaniment loop tapes that they produce was in twelve volume with forty eight songs in all. This deck and tapes is a prototype of karaoke and it was named ‘Crescent Juke’. The name suggests that it was a juke box or more precisely a tape juke box, or an extension of a juke box. When this machine was leased it also include as part of the equipment lyric sheets, which were to become indispensable until they were replaced by lyrics superimposed on a screen. The lyrics were inserted in a vinyl album to keep them from getting soiled.

In 1973, more karaoke manufacturers appeared, and soon the musical accompaniments recorded on tapes became much closer to original hit records in their arrangement and orchestration with deliberate modifications for amateur singers. This made the songs easier and more pleasant to sing. Later in 1978, a machine which automatically rates the pitch, tempo and rhythm of a singer’s performance on a 100-point scale was introduced and was soon universally adopted.

Visual karaoke, including video, laser disc, as well as CDs, all appeared in 1982, gradually replacing audio tapes on the karaoke scenes. In the same year, a key-shifting mechanism was invented; in which it enable the key of a recorded accompaniment to be automatically changed without slowing down or quickening the tempo. The year 1986 saw the introduction of the 'karaoke box', a larger booth or compartment. In 1989, there even appeared a 'walking' karaoke, a karaoke version of Sony's walkman, with forty song accompaniments on one small insert able card.

2.2 Type of Karaoke Machine and Software

This section will discuss the different types of karaoke machines, how they work, their features and different format and software available.

2.2.1 Cassette



Figure 2.2: Cassette Karaoke Machine

Figure 2.2 show the cassette karaoke machine. It is usually a self-contained machine featuring two cassettes decks, speakers and sometimes an AM/FM radio. These machines are available in mono or stereo. Mono machines can play multiplex tapes, though the vocal and background tracks can't be isolated unless the machine has balance control knob. While stereo can divides the sound into two sides; left and right. It has a versatile sound and can be plugged directly into home stereo system and can connect to a CD player, VCR or professional sound system.

2.2.2 CD Players



Figure 2.3: CD Players

Figure 2.3 show CD players. Karaoke machines that include a CD player offer even more possibilities. They can play regular CDs, as well as special multiplex CDs. Many music lovers prefer the CD format, and CDs are more durable and longer lasting compared to regular cassette.

2.2.3 Compact Disc plus Graphics (CD+G)



Figure 2.4: Compact Disc plus Graphics (CD+G) Players

Figure 2.4 show a Compact Disc plus Graphics (CD+G) Players. It works like a CD players, but when it was hook up to a television or monitor, it displays the words of the song plus colourful graphics.

2.2.4 Laser Disc Players



Figure 2.5: Karaoke Laserdisc

Figure 2.5 show a karaoke laser disc player. This format is widely used by restaurants and bars. These machines use pre-recorded video and lyric graphics together

on one disc. The laser disc machine usually comes as a single component that is hooked up to a stereo. Features on a laser disc machine can include key control, reverb/echo and remote control. Laser disc player can play up to four different disc formats. It was extremely versatile and can even play standard movie disc.

2.2.5 Cassette plus Graphics (Cassette + G)

This machine is also known as “Super K” and allows video hook-up to television so it can play the songs and the lyrics will appear on the television screen. This unit also features a MIDI sound module.

2.2.6 Personal Computer (PC) Karaoke

This enables user to karaoke with their personal computer. It was easy to use and install and it was an interactive multimedia software application that includes a program disk with 10 to 12 songs, PC karaoke microphone, an adapter for sound cards and more.

PC karaoke microphone