

**Original Research Article****Telephone Recognition System of Chinese Herbal Medicine****Chen Yuan<sup>1,2</sup>, Chuanmeng Wang<sup>1</sup>, Minmin Tang<sup>1</sup>, Kun Han<sup>1</sup>, Yuan Liu<sup>1</sup>, Baobao Chai<sup>1</sup>, Wenwen Zhang<sup>1</sup>, Yuan Li<sup>1</sup>, Ju Huang<sup>1</sup>, Fenghua Zuo<sup>1</sup>, Lanhua Zhang<sup>1\*</sup>**<sup>1</sup>Department of Medical Information and Engineering, Taishan Medical University, Taian Shandong, China<sup>2</sup>Medical Department, Dezhou Municipale Hospital, Dezhou, 253012, China**\*Corresponding Author:**

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**Abstract:** In order to recognize Chinese herbal medicine quickly and conveniently, we development telephone recognition platform by Java language. Object to the focus on health and Chinese herbal medicine, we put forward the system idea based on Android telephone to meet the requirement of herbal medicine recognition and help people recognize Chinese herbal medicine in travelling or outsides. The telephone application software developed by Java platform of micro edition can recognize Chinese herbal medicine by similar key word retrieving in the condition of plant characters and environment conditions.**Keywords:** Chinese herbal medicine; Java language; key words; plant characters

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**INTRODUCTION**

Chinese herbal medicine, named Chinese traditional drug, is one of traditional Chinese medicines. Traditional Chinese medicine is consist of plant medicine, animal medicine and mineral medicine [1]. Plant medicine includes root, stem, leaf or fruit of plant; animal medicine includes viscera, skin, bone, organ, etc. of animal. Traditional Chinese medicine is also called Chinese herbal medicine because of majority ratio of plant medicine in traditional Chinese medicine. Chinese herbal medicine is a unique medicine used in the prevention and treatment of diseases. The application theory of Chinese herbal medicine is unique because of its smell and taste which has different effects with different smell and taste union. The application way of Chinese herbal medicine is various with decoction, pill, powder, ointment, wine, tablets, granules, injection, etc. [2-4]. Meanwhile Chinese herbal medicine has many famous medicine, for example, botanical medicine is famous for ginseng, *Ganoderma lucidum*, *Polygonum multiflorum* Thunb and *Lycium barbarum*; animal medicine with donkey glue, bezoar, bear bile, snake venom, velvet antler and so on are most precious; mineral medicine of cinnabar, ochre, talc, Glauber's salt is the most commonly used in lives. With the focus on the Chinese herbal medicine, people are interesting in the plant medicine in lives when they go out for travelling and living [5,6].

When we meet with a plant medicine, how can we know or recognize it and how to process it. It is not so safety for everyone to test Chinese herbal medicine by non-professional recognitions, after all, some

Chinese herbal medicine have poisonous. If we can recognize Chinese herbal medicine by professional conduction, Chinese herbal medicine is useful and valuable for our lives.

With the development of computer and network [7,8], telephone software is a kind of application with special function for people. All kind of APP software comes into use in lives functions in the fields of intelligence. Telephone software mainly refers to the software installed on the smart phone that improve the original system deficiencies and personalized functions [9-11]. The software is also based on the hard platform and it is the main means for mobile phones to improve their functions and provide users with a richer experience. In the applications it has developed to a level comparable to that of computers so that the telephone application became more and more popular. For software platform combing with hard platform now the telephone software operation requires a corresponding telephone system, and the main telephone system mainly includes Android and Apple system, especially the Android two systems which had a strong advantage and quickly occupied most of the telephone market.

Java is a language of the intermediary software and computer system which was originally designed in the Applet desktop client program, but then gradually transferred to the application server [12-15]. The main telephone platform software for the operation of the Java platform was written by Java programming language platform. Java can run in different operating system on the operation of the programming language,

such as windows, UNIX etc. Java platform is also running on the terminal system software, such as personal computer, servers, mobile devices and embedded devices etc. The Java program on the personal computer is developed with Java standard edition, and the server side of Java program is developed with Java enterprise edition. The Java program of mobile device is mainly developed with Java micro edition.

## METHODS

Database of Chinese herbal medicine is the base of the system [16-19]. In a computer, a database is organized in accordance with a data model and stores data sets in two levels of memory. When the database is applied to the hospital system, it can not only change the traditional medical document storage mode redundancy and difficult to find problems, but also can maintain the unity and authority of medical documents. The database of Chinese herbal medicine can be set up by three ways, one is to set data database of the basic data mainly includes number and characters, the other is to set image database mainly includes the image information of the Chinese herbal medicine, the third is to set file database mainly includes the complex files. The introduction of medical database technology can greatly save the medical data storage space, and is a better protection of patient privacy and further realize the sharing of resources between different units. By the medical database we can make all kinds of medical data more efficiently retrieval of all kinds of information, also can bring great convenience to the medical workers.

Software development is a process of building software components in a software system or hardware system according to user requirements [20-23]. Software development is a system engineering that includes requirements capture, requirements analysis, system design, system implementation and system testing. Software is usually implemented by some programming language, such as C programming, Java programming etc. Software development tools are often used for the programming development. Software development is to develop application software based on system software and not just a program that can run on a computer, and files associated with these programs are generally considered part of the software. The general process of design ideas and methods of software includes software design for software functions and the implementation of the algorithms and the methods, the overall structure design and module design, programming and debugging procedures, testing and so on. The software development platform originates from the tedious practice development process. Developers frequently used functions in practice, summarize, abstract, interface package, and so on, that can be repeated use of middleware, which is more able to meet the needs of enterprise customers and software development platform. The platform is the aggregation

of the achievement in medical research for a period of time, and also the symbol of the phased platform, which provides the basis for the industry to enter the new research and development fields. As the platform promotes the core competitiveness of enterprises obviously, the application of software development platform has become a trend in the current domestic management software market.

## RESULTS

The application of information technology in traditional Chinese medicine is increasingly popular, and the information infrastructure is improved and strengthened, basically completed the construction of Chinese medicine science and technology basic information database, Chinese medicine science data management and sharing service center; part of departments of traditional Chinese medicine and Chinese medicine have constructed digital library and digital museum to meet the requirement; the information standard system and technical specification research has achieved certain results, and became the preliminary establishment and development of technology platform for clinical research of traditional Chinese medicine information sharing [24]. To meet the needs of all levels of the administrative department of traditional Chinese medicine business applications; information platform of medical system has set up based on computer of traditional Chinese medicine, also the Chinese medicine comprehensive statistical management system, public information service system, medicine and medical service information system of traditional Chinese medicine, meanwhile, the preventive health care information system initially built based on application system, and the formation of a number of Major business covers of traditional Chinese medicine Chinese medicine; by the system platform the data repository and medical information standard system basic established so as to further promote the traditional Chinese medicine information resource sharing and interoperability [25].

By Chinese herbal medicine system platform it is easy to find the information of the Chinese herbal medicine [24-27]. Based on the computer technologies, all the data information can be stored in the system platform that provides the retrieval and data processing for Chinese herbal medicine. In the Chinese herbal medicine system, the basic information can be formed a professional database for Chinese herbal medicine information which is difficult for Chinese herbal medicine storing. By classifying the data of Chinese herbal medicine, all the information can be stored in the database of Chinese herbal medicine which provides the base of the data processing. With the database, it can be processed with system platform so as to set up better and higher platform for the data processing of Chinese herbal medicine. With the professional system software platform of Chinese herbal medicine, we can store and handle the data by computer way based on the computer

technology. We can analyze the Chinese herbal medicine by numbers of information and make statistics of Chinese herbal medicine, even the compatibility of herbal medicine. With the database of Chinese herbal medicine, the information can be got online by the network developments [26]. We can demonstrate and retrieve the information of Chinese herbal medicine online and easy to use anywhere as long as the online application.

Indeed, telephone application has changed a lot of modern people's life, which makes life more efficient, such as many function needs to go to the hospital, now we only download the hospital client on the telephone and through the online registration service the profession medical service can be achieved, so it is very convenient for us to use the medical information platform. Because of the convenience and richer user experience, telephone APP has been popular in many ways and fields or more than browsers in the user's role in the network application. Telephone APP of Chinese herbal medicine is a professional App which is an Android platform, with the platform it can provide a Chinese herbal medicine encyclopedia of knowledge application, and is looked as a Chinese medicine health assistant. The telephone system includes Chinese medicine guide, herbal health, Chinese medicine, traditional Chinese medicine beauty, Chinese medicine prescription, Chinese medicine folk prescription, and Chinese medicine identification [27].

The functions of telephone recognition system of Chinese herbal medicine provide the role of application. The basic function of Chinese herbal medicine includes traditional Chinese medicine indications, efficacy, medicinal materials, origin, authentic herbs, efficacy categories, usage, dosage, sexual taste, and so on, which can fit for all parts of the query according to Scripture, Pinyin, efficacy, resistance, medicine of Chinese medicine. Excepted that, it also includes the human body map that covering all points of the human body, meanwhile the Chinese herbal medicine as long as possible. Meanwhile, it is also a Chinese medicine guide including Chinese medicine health, Chinese medicine, traditional Chinese medicine beauty, Chinese medicine prescription, Chinese medicine folk prescription and Chinese medicine identification [26-28].

The APP can run on the telephone and provide the convenient application of Chinese herbal medicine study. So long as the telephone on the network, the basic information can be got by the APP of Chinese herbal medicine, including the leaf, stem, root and so on for the simple application. The complex function that can't be retrieval by the accurate retrieval can be recognized by the system and manpower, such as the image recognize. We can realize the different functions by the different design in our lives [26-28].

## CONCLUSION

In this paper, we put forward the telephone recognition system of Chinese herbal medicine so as to recognize the Chinese herbal medicine by the online system. First, we design the database of Chinese herbal medicine to meet the information requirements of Chinese herbal medicine, and put forward the classify mechanism to store the complex information of Chinese herbal medicine so as to store all kinds of forms of Chinese herbal medicine. Secondly, we set up the computer application platform to design the function of Chinese herbal medicine. At last we transform the computer system to telephone APP so as to use conveniently for all kind of telephones.

## ACKNOWLEDGEMENTS

This research was supported by the National Students' project for innovation and entrepreneurship training program (Grant No. 201510439021).

The authors thank the College of Information and Engineering Taishan Medical University colleagues for manuscript comments. Special thanks to Xiaochen Xu for suggestions on writing in the English language. The authors are grateful to the anonymous referees for their valuable comments and suggestions.

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