Design of Sports Training Information Management System Based on Andriod System

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Abstract

In the management of sports training information, we should increase scientific research investment in informationization, we can use modern technology to manage sports training information more efficiently, and we can design more scientific, more targeted and perfect physical training based on Andriod smart phone Information Management System. Designing a sports training information management system based on Andriod smart phone, this system is developed and designed to help users to use the sports training information management system, so that people can download different types of sports training knowledge information through Andriod smart phones. Online Watch contribute to the promotion of the current concept of lifelong physical training, to play a positive application of benefits. The conclusion shows that the design and implementation of sports training information management system based on Andriod smart phone, and it can promote the system in practice.

Keywords: Sports training information, Andriod System, Information Management System.

1. INTRODUCTION

Android is the open-source version of Google system, which has announced in 2007, and its openness is real because it outperforms many other closed-cell phone systems, so no matter what people are likely to be based on their own different preferences. All functions on the phone system have rewritten. This also makes more and more technology continue to pay attention to this potential operating system (Li et al., 2015). One of the popular handset-based operating systems now available on the Android phone-end operating system is nearly 40% more in each smart phone's market. Many phone controls are beginning to use Android smart phones, and Android phones come with high-quality camera, it can take pictures; you can also video and other powerful features. Sometimes, however, the pictures have taken or the images on the phone were only available to the user at the time to see the media. So if you want to go to your friends and family afar off, we must through the traditional MMS or 3G video calls can be achieved, if not only the fees are very high, but also we can bring a lot of inconvenience. The current competitive sport tends to high, refined, difficult, sharp direction. This requires us have viewpoint and method system of training (Moe et al., 2014; Chen et al., 2014). Competition is using technical means to carry out systematic management of information theory to reveal and grasp the complexity of dynamic contact Sports Training (Shen et al., 2015). More scientific laws and quantitative accurate conclusions to guide scientific training. Therefore, the use of advanced information management techniques helps to conduct scientific analysis of competitive sports and their training methods to guide sports training is an effective way to improve the level of sports and develop towards high, precision, hard, and sharp. A sports team to solve the problem is the first issue of management, which includes athletes and coaches basic information management, competition information management, training information management. As far as I understand it, nowadays, with the exception of the computer technology, the management of national-level sports teams with a handful of traditional superiority projects nowadays. The vast majority of grass-roots, universities and even the provincial-level sports teams management methods only remain at the level of paper media, this mechanism is clearly unable to meet the requirements of the times, it wastes too much manpower and material resources. There are some inherent defects. In the information age, this traditional management method has replaced by a computer-based information management approach (Mirelman et al., 2013; Chen and Liu, 2016). Therefore, a more scientific, efficient, safe, and beautiful information management system based on computer database technology is imperative.
With the popularization of modern smart phones, more and more people begin to get relevant network information through mobile phones, and they also change the way people get information. With the development of modern sports, more and more people begin to pay attention to physical exercise, and get related sports training information through various channels, such as tennis and basketball techniques. By understanding this information, you can improve your skills in sports. According to the requirement of informationization of sports training, this paper proposes a management system of training information based on Andriod smart phone, using Java as the development language, c’s as the access framework and eclipse3.5 as the development tool to develop the system (French et al. 2013). Sports athletes through mobile phones can achieve sports training programs and other related information inquiries, to achieve the information of sports training innovation.

2. SYSTEM DESIGN REQUIREMENTS

In this design of sports training information management system, based on Andriod smart phone, it should be able to improve the development of technology, improve system functions, so as to improve the practicability of the physical training information management system in practice and achieve the purpose of eventually promoting the use of the system. The design of sports training information management system will use Andriod smart phone mobile devices, combined with the needs of the majority of sports enthusiasts. The system can used better manage sports training information from the user Based on the actual needs, combining the actual training habits of sports enthusiasts and simplifying the flow of the whole program as much as possible. The design of the interface should be simple and the navigation should be reasonable, to provide a good experience for the majority of sports training users design. The system design, based on Andriod smart phones, enhances the scalability of the system. Therefore, the Andriod smart phone has sports training information management system design, the need for modular design ideas, so that the future of the system functional modules helps to upgrade and ensure the future use of the system upgrade to meet the needs of the maintenance. In the design of the system, the user can access the sports training information management system only through the Andriod smart phone, and it can improve the usability of the system design to meet the needs of users.

The basic framework of the Android platform is shown in Figure 1.

![Android Basic Frame Diagram](image)

Figure 1. Android Basic Frame Diagram

3. DESIGN AND IMPLEMENTATION OF ANDRIOD-BASED SPORTS TRAINING INFORMATION MANAGEMENT SYSTEM

3.1 The overall structure of the system design
Based on Android smart phone, the design of sports training information management system, the overall structure of the system, it will combined with demand analysis, the use of C/S access mode of sports training information management system design and layout. Make sure that system users only need to download the Android smart phone client to achieve this system access. Sports training learners can access the server of sports training information management system by adopting the hotspot, 3G, and 4G network technology, in order to query and manage the video resources, text resources, and other information in sports training. The overall structure of the system design is shown in Figure 2.

![Figure 2. System Requirements Design Block Diagram](image)

It can be seen from the diagram that participants are still users, which express the requirements of the customer experience and are added to the system when the user enters the required information. The management system module of added logistics information is shown in the figure 2.

### 3.2 System design

We can design sports training information management system, based on Andriod smart phones, after demand analysis and demonstration, the management system of sports training information needs to have five major functions, respectively, set it as a different module, as shown in figure 3.

![Figure 3. Quantum leapfrog algorithm](image)
In this study, the scientific management of sports training information, the modern information Andriod smart phone technology fully integrated into the sports training information management, thereby enhancing management efficiency and level (Yerima et al., 2014). The specific function of the system is shown below. You can manage the system users, trainers registered, landing and so on; this section can also set the user permissions to ensure that the user information is in the system security. The training effect management can use to evaluate the effect of sports training, stage management of user physical exercise information data.

Management information about competition information can store and query information related to sports training competition, including basic information on sports events, participants, scores and other information, and it optimizes the management of sports training information to ensure that the specific usability value is improved. For the management functions of scientific research information, relevant training information can be input and stored in the system, the relevant scientific research data in sports training activities can also be initially collected to improve system development capability.

3.3 Andriod smartphone platform to build

In the design of sports training information system, the construction of its Andriod smart phone platform needs to face the users of multi-level system and realize the comprehensive management of user's sports training information. The design of the system helps to enhance Andriod smart phones on all aspects of the system relevance and real-time nature of the system can use the various modules of the original data analysis, integration, and the results can be provided to other users in the system. For Andriod smart phone sports management system design will be used when the distributed processing, the use of client/server (Client/Server) structure to build application platform; in the client and server interaction to meet user needs. And the system processing results can be returned to the Andriod smart phone via the Internet. The design of the Andriod smart phone platform is shown in Figure 4.

```
Dispatch*** (Parcel &p, RequestInfo *pRI) {
    ...
    s_callbacks.onRequest(pRI->pCI->requestNumber, ***,
        datalen, pRI);
    ...
}
```

```
onRequest (int request, void *data, size_t datalen, RIL_Token t)
```

```
at_send_command(cmd, NULL);
```

```
at_send_command_full();
```

```
at_send_command_full_nolock();
```

```
Writeline();
```

```
pthread_cond_wait();
```

**Figure 4.** The design of the Andriod smart phone platform

Andriod smart phone sports training information system client can make full use of Android platform UI interface, the server uses Tomcat6.0 as the application server, MySQL as a database management system is making the sports training information system more user-accepted.
3.4 E-R chart design

E-R diagram is a conceptual model. The conceptual model is actually an intermediate layer from the real world to the machine world. E-R charts, also called entity-contact diagrams, provide methods for representing entity types, attributes, and relationships that describe the conceptual model of the real world. It is a conceptual model used to describe an organization (Mann et al., 2014), providing a means of representing entities, attributes, and connections. The basic elements that make up E-R diagrams are the entities, attributes, and relationships. Entities refer to things that exist objectively and are distinguishable from each other. Attribute refers to every characteristic that an entity possesses. The E-R chart provides an intuitive way to represent entity types, attributes, and relationships. The following is the entity map; the entity diagram of player information table is in Figure 5.

![Figure 5. Entity diagram for player information table](image)

3.5 Design of database tables

E-R the design phase of the database table is entered when the diagram is finished. Analyze data types and design each entity in the E-r diagram.

<table>
<thead>
<tr>
<th>No.</th>
<th>Field</th>
<th>Description</th>
<th>Data types</th>
<th>Allow null</th>
<th>Primary key</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Id</td>
<td>Number</td>
<td>int</td>
<td>Whether</td>
<td>Is</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Name</td>
<td>Player name</td>
<td>varchar</td>
<td>Whether</td>
<td>Whether</td>
<td>255</td>
</tr>
<tr>
<td>3</td>
<td>Team</td>
<td>Team</td>
<td>varchar</td>
<td>Whether</td>
<td>Whether</td>
<td>255</td>
</tr>
<tr>
<td>4</td>
<td>Number</td>
<td>Jersey number</td>
<td>varchar</td>
<td>Whether</td>
<td>Whether</td>
<td>255</td>
</tr>
<tr>
<td>5</td>
<td>Weizhi</td>
<td>Field position</td>
<td>varchar</td>
<td>Whether</td>
<td>Whether</td>
<td>255</td>
</tr>
<tr>
<td>6</td>
<td>Height</td>
<td>Height</td>
<td>varchar</td>
<td>Whether</td>
<td>Whether</td>
<td>255</td>
</tr>
<tr>
<td>7</td>
<td>Weight</td>
<td>Weight</td>
<td>varchar</td>
<td>Whether</td>
<td>Whether</td>
<td>255</td>
</tr>
<tr>
<td>8</td>
<td>Date</td>
<td>Team Time</td>
<td>varchar</td>
<td>Whether</td>
<td>Whether</td>
<td>255</td>
</tr>
</tbody>
</table>

3.6 Mobile terminal detailed design

When the user opens the phone to enter the program, the login interface requires the user to enter the correct account password to login, and the specific sports parameter information. The software running result is shown as in Fig. 6.
5. CONCLUSIONS

Designing a sports training information management system based on Andriod smart phone, this system is developed and designed to help users to use the sports training information management system, so that people can download different types of sports training knowledge information through Andriod smart phones. Online Watch, contribute to the promotion of the current concept of lifelong physical training, to play a positive application of benefits. Based on Andriod smart phones, the development and design of sports training information management system can make sports athletes through Andriod smart phones, sports training program information can be related queries, to achieve the optimization and innovation of sports training information management can enhance the current management efficiency of 20.0%, Play a positive application of efficiency. In summary, this study is based on Andriod smart phones, the design of sports training information management system for our sports training information management mode, Andriod smart phone to experience theoretical preparation, system requirements and the overall system architecture design, functional design, code writing, etc. Phase, the design and implementation of sports training information management system, to exert its practical value, have a positive impact.

REFERENCES

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