Based on J2EE Research and Realization of National Fitness Sports Convenience Service Platform

Wu Fang

Wuhan Business University
Wuhan, China
629752700@qq.com

Abstract: The concept of the national fitness convenient service platform for further study, combined with the current needs, design the convenient universal mobile end the development environment and development tools, at the same time, this paper expounds how to set up the national fitness convenient service platform of mobile terminal development environment, function classification of fitness service platform, each module development mode, the overall framework design.

1. INTRODUCTION

Since the 21st century, China's science and technology level and quality of life ushered in the rapid development of physical fitness in People's Daily life increasingly prominent importance. In today's society has entered the new era of Internet, the traditional industry with the Internet into innovative industry, so as to keep up the pace to meet the needs of people to keep pace with The Times, so the reform of the "Internet + sports fitness is very urgent, via the Internet technology can not only solve the above problem, also can adapt and promote the economic development, promote the national fitness [1-6]. National fitness is an important way and means to achieve national health, and it is the basic guarantee for all the people to strengthen their bodies and live a happy life. The transformation of the traditional fitness industry through "Internet +" can meet the growing needs of the people for physical fitness and enhance the enthusiasm of all the people to participate in physical fitness, so as to achieve the concept of national fitness, complete the national fitness plan and gradually achieve the goal of building a "moderately prosperous society" in an all-round way [7-11]. Based on the concept of national fitness, this paper, from the perspective of grassroots, aims to improve the proportion of the country's healthy population and citizens' health awareness, in order to promote all people to participate in physical fitness, enjoy physical fitness and build a national fitness convenient service platform.

2. NATIONAL FITNESS PLATFORM

The national fitness and convenience service platform is composed of five sub-modules with different functions, as shown in Figure 1. Each module has its own particularity, and the network environment it supports is also different. Therefore, it is necessary to study the network architecture of the entire platform if it is extended on its basis without affecting its original business scope.
3. MOBILE TERMINAL DESIGN

As a national fitness and convenience service platform that can be used by the whole people, the design concept at the beginning of the system design is to provide all services for the convenience of the people, in which users can operate through mobile terminals. At the same time, as the core concept of development, convenience service, humanization and ease of use must also be considered. As a mobile terminal in the national fitness and convenience service platform, the interaction between the front interface and the background database is essential if it wants to run smoothly. Here, the following diagram to introduce the front interface and the background database of the two interactive logic operations. First of all, users need to register for the first time to use the software, otherwise they cannot enter the software normally. The following is the logical diagram of software registration, as shown in Figure 2.

Figure 2. Logical structure diagram of software registration
As a software design model, MVC pattern is widely used in J2EE engineering development projects. This system also adopts the DESIGN pattern of MVC, in which M refers to the business model created, V refers to the interface displayed to the user, and C refers to the controller layer. See Figure 3.

![MVC design pattern](image)

Figure 3 MVC design pattern

After adopting MVC pattern, the total development time of project development members is greatly reduced. Because use the MVC design pattern, for example, Java development programmers can focus on the business logic and process to realize energy, and at the front desk interface implementation programmers can concentrate on interface performance, so that they work between each other to work together again at the same time, increase the speed of the overall development of a software project, shorten the development cycle of the whole project.

4. PAGE DESIGN
The interface at the front desk of the mobile terminal in the national fitness and convenience service platform is mainly displayed by the Activity. In fact, not all the pages displayed on the terminal are static, and some pages are dynamic. As shown in Figure 4:
Figure 4. Client project directory

The mobile terminal in the national fitness and convenience service platform USES androidmanifest.XML component to assemble and run, and its running program is shown in Figure 5:

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.nationalfitness">
    <application android:icon="@mipmap/ic_launcher" android:label="com.example.nationalfitness">
        <activity android:name="com.example.nationalfitness.MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN"/>
                <category android:name="android.intent.category.LAUNCHER"/>
            </intent-filter>
        </activity>
    </application>
</manifest>
```

Figure 5. Mobile terminal code of the national fitness and convenience service platform in the project
MainActivity as an Activity file, MainActivity is generally the default main page of the project and the Activity responsible for the program entry. By calling this Activity, the program displays the first interface for the user. The MainActivity code in this project is shown in Figure 6:

```java
public class MainActivity extends CordovaActivity {
    private Context Ctx;
    private static final String MASTERSECRET = WwcP8gLcqU6EkWdGmnJJ19";
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        super.init();
        Ctx = this.getApplicationContext();
        MyObj myObj = new MyObj(this);
        BaiduLocation myLocation = new BaiduLocation(this);
        appView.addJavascriptInterface(myObj, "myObj");
        appView.addJavascriptInterface(myLocation, "myLocation");
        Set by <content arg="index.html" /> in config.xml
        loadUrl("file:///android_asset/client/index.html");
    }
}
```

Figure 6 shows the MainActivity code in the project

R. Ava is a mobile terminal project in the national fitness and convenience service platform. R. Ava file contains key-value pair information. At this point, it is important to understand the concept of key-value pairs. The key-value pairs in Android can actually be understood as aliases for resources. In Java, we can just use this alias name without worrying about what type of file it is, whether it's an image or some type of file, and just remember its int value.

The setting of the system in the national fitness must be flexible and convenient for people with different usage habits to customize their own Settings. At the same time, the system design should be as simple as possible, easy to maintain, ensure the consistency and integrity of data, and be able to reasonably realize the data demand of fitness for users.

5. CONCLUSION

With the continuous improvement of living standards and the rapid development of the fitness industry, the resource coordination of various fitness places has not been able to meet people's diverse fitness needs, and the venue management has not formed a more complete unity. Therefore, from the perspective of comprehensive health, this paper constructs a national fitness service platform for the convenience and benefit of the people, and through systematic guidance and coordination of resource allocation, promotes the active participation of people from all walks of life in fitness, practices the concept of national fitness, and gradually completes the national fitness plan.

REFERENCE

[1] Yuan Liu. The key node of promoting the "Internet +" Action Plan [N]. Guangming Daily, 2016-01-21(016).
[2] Zhendong Yu. Design and implementation of intelligent fitness system based on mobile terminals and ARM in the national fitness service platform [D]. Nanchang University, 2017.
[3] Fuyun Chen. Research on the Construction Strategy of Internet Sports fitness APP Service Platform [D]. Wenzhou University, 2018.
[4] Rui Song. Research on the "Internet +" Social Service Platform for Opening Jinan School Sports Venues to the outside world [D]. Shandong Institute of Physical Education, 2017.
[5] Wei Liu. Application research of Load balancing technology in e-commerce Websites [D]. Hunan University, 2018.
[6] Yanru Bi, Wang Zhibo, Wang Qisen. Analysis and research on solutions for highly concurrent
applications in Internet environment [J]. Computer knowledge and technology, 2017, 13(30): 59-60.

[7] Reto Meier. Professional. Mobile terminals in the national Fitness and convenience service platform Application Development[M]. America: WROX PR/PEER INFORMATION INC, 2010.

[8] Krause, E. T., Honarmand, M., Wetzel, J., & Naguib, M.. (2009). Early fasting is long lasting: differences in early nutritional conditions reappear under stressful conditions in adult female zebra finches. Plos One, 4(3), e5015.

[9] Michael, Weisgerber, Kathryn, Webber, John, & Meurer. (2008). Moderate and vigorous exercise programs in children with asthma: safety, parental satisfaction, and asthma outcomes. Pediatric Pulmonology.

[10] Motoyoshi, G., Leibnitz, K., & Murata, M.. (2012). Proposal and evaluation of a future mobile network management mechanism with attractor selection. Eurasip Journal on Wireless Communications & Networking, 2012(259), 259.

[11] M Ameling, & SAP AG. (2013). Mobile business apps. Scoop It.