Design and Implementation of Information Display Platform about Grain Economy Team Based on ASP.NET
Lei-meng LI, Na ZHANG* and Guo-jian CAI
Changning District, Beijing, China Huilongguan town on the 7th North agricultural Road
*Corresponding author

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Abstract. In recent years, based on the actual situation and demand, this paper develops a platform for information display of Grain Economy Team, it which were build a resource sharing system based on B/S architecture and ASP.NET development technology is efficient and accurate in managing food grain team, in order to improve the rational industry competitiveness, stimulate the creativity of science and technology personnel, carry out scientific and technological innovation, the production demonstration and technology services, and achieve food team of information technology development [1].

Introduction
The information platform of the food economy team is mainly designed by the innovative team of Beijing's agricultural industry system, however, due to the uncoordinated development of Grain and Economic Crops Innovation Team, the research and development results of new varieties, new technologies and new products which unceasingly explored by various post experts are not timely reported, so there are problems of delays and omissions, leading the team to fail to timely of the exchange and the release of dynamic news, and it hindered the team's development.

System Analysis
Feasibility Analysis
The development of the information platform is designed to provide a convenient and efficient platform for the Grain and Economic Crops Innovation Team. First of all, we have a clear understanding of the actual needs of the team before the development, and developers master and use Visual Studio and SQL Server operating procedures. Secondly, as the hardware and software environment required by the platform, people is easy to buy or related sites to download on the markets, the platform costs mainly in the development and maintenance, which not caused excessive economic burden to the users. And, the platform is not very complex, the development cycle is shorter, and personnel economic expenditure is not big, therefore, saving a lot of manpower and financial resources will be far greater than the benefits of the system development costs. Thirdly, in the development and maintenance of the whole system, we are able to complete the project research, site security and maintenance of the system platform under the support of certain funds, playing an important role in the development of this system. Finally, platform-oriented users are also easy to operate, and the data update is convenient, efficient and accurate, so, a platform for information display of Grain Economy Team is feasible in the practical operation. In a word, the platform is feasible in the development and design.

Development Environment
The system platform is the use related technology of ASP.NET to development the site through the design and development of C # language design and development and the use of SQL Server 2012 data for effective processing of the platform for information display of Grain Economy Team, involving the software in Visual Studio 2012 and SQL Server 2012 etc., which promotes
technology and R & D results and the release of the latest developments base on the use of network technology to solve the actual situation of the Grain and Economic Crops Innovation Team.

The Configuration Environment

The following is the environment required to develop the system configuration:
- Operating system: Windows 7 or Windows 10;
- Development tools: Visual Studio 2012;
- Database environment: SQL Server 2012;
- Programming Language: C #.

System Functional Requirements

(A) The front features:
1. News Center: it shows food team's technology promotion, work dynamics and other related information;
2. Achievement presentation: it shows R & D results needed to release by the Grain and Economic Crops Innovation Team, such as: new technologies, new products and patents;
3. About Us: it shows a lot of basic information of the farmers work station for the team in the counties;
4. Contact Us: it shows the basic information of the Grain and Economic Crops Innovation Team.

(B) The background features:
1. Super Administrator: it adds the basic information of the website, manages the basic information of ordinary administrators and adds, deletes and modifies information about "About Us", "News Center" and "Results Management";
2. Ordinary Administrator: it modifies and delete their basic information, what’s more, it adds, deletes and modifies the "News Center" and "Results Management" and other information.

System Structure

The platform for information display of Grain Economy Team adopts B / S architecture, which is based on browser and server, which simplifies system development, maintenance and utilities. When they need to update the software, users only update the server-side program, data information can be updated in the client browser at any time, and all the content will be displayed in the user client. In addition to this, users do not have to install specialized software, as long as the operating system comes with a browser, you can access and utilize this system. Therefore, B/S architecture is not only convenient, but also currently the most application architecture.

Data Flow Diagram

The data flow diagram is referred to as DFD, It uses the graphical way to express the logical function of the system, the data within the system logic flow and logical transformation process from the data transmission and processing point of view, and it is the main expression tool of the structural system analysis method and a graphical method used to represent the software model. Figure 1 shows the top-level data flow diagram for the system.

Figure 1. Top-level data flow diagram.
System Design

System Function Module

According to the design requirements of this system, the overall function of the system module as shown in Figure 2:

![Figure 2. System function module.](image)

Database Design

Database design is based on user needs in a specific database management system, and it design the database structure and the establishment of the database process of the system.

Design of Database Logical Structure

In order to be able to clearly understand entity relationship of the Grain Economy team information display platform, the logical design of the database as follows.

1. Administrator (adnumber, adname, password, department);
2. ContactUs (contactID, title, content, cocategoryCode, remarks);
3. ContactusCategories (cocategoryName, categoryName, remarks);
4. News (newsnumber, newsheadlines, newscontent, upload time, nclassnumber);
5. Newscategory (nclassnumber, catitle, notes);
6. Results (resultnumber, title, content, repicture, uploadtime, uploadauthor, reclassnumber);
7. Resultclassification (reclassnumber, caname, remarks);
8. Sitebasicinformation (inornumber, webname, webtitle, keywords, webaddress, bottom, description);

System Implementation

Introduction to the Foreground Function Module

Contact Us. Users can view the basic information of the Grain and Economic Crops Innovation Team through "Contact us" to relate then.

About Us. Users can view the related information of the Grain and Economic Crops Innovation Team through "About us", including farmer field work station, comprehensive test station,
personnel list, function research room and team introduction. Users can click on the left side of the classification to view the corresponding content according to needs.

**News Center.** Users can browse work dynamics, technology promotion and recommendation news and other news through the "News center", and the news is displayed in chronological order, so users can click on the left side of the classification to view the corresponding content according to demand, at the same time, the user can select the control conditions, and click the news headlines to view the details according to the needs of news screening.

**Achievement Presentation.** Users can view more information of "Achievement presentation", including scientific research, new products, new technologies, new achievements, books, papers and patents through the "results show". Users can click on the left side of the classification to view the corresponding content according to demand, at the same time, users can click the picture or title to view the results of the details.

**Introduction to the Background Function Module.** Administrators are divided into super administrators and ordinary administrators, the administrator successfully logs into the back-end system of the platform by entering the correct user name and password, if the name or password of the users is incorrectly entered, the system will not give the appropriate prompt "user name error" or "password error" until the user name and password are correct to log on successfully.

**Basic Management.** Super administrator can add the basic information of the site and the management of ordinary administrators, for example, he assigns account and password to the ordinary administrator, modify and delete the basic information of ordinary administrators and so on. However, the ordinary administrator can only view their basic information through the Basic management.

**About Us.** The "About Us" module function can only be administered by a super administrator, the super administrator can add, edit, and delete basic information such as farmer's farm workstations, comprehensive experimental stations, team profiles, etc. At the same time, he can also manage categories, such as adding, deleting, and modifying them.

**Information Center.** Super administrators and ordinary managers can manage the information and news classification of News center, such as add, modify and delete it.

**Achievement Presentation.** Both Super Administrators and Ordinary Administrators can manage the content, as well as the classification of Achievement presentation, such as adding, modifying, and deleting it.

**Summary**

The system uses ASP.NET, applies Microsoft SQL Server 2012 to support for database, and it fully achieves according to the three-tier structure: the data layer, development layer and client layer system with HTML, JavaScript and other technologies. The system is for the food needs of the actual team, the system is mainly divided into front and back desks, one front-end module include Contact us, About us, News center and Achievement presentation. The background includes modules such as Super Administrator and Ordinary Administrator. The user logs in before entering the system, and enter the correct user name and password to successfully login in it, in order to ensure the security of information platform management. When you set the user information, you will set to login for the general class user and management class user, that is, different users have different permissions. To a certain extent, this set makes the system management achieve the permissions and security.

**References**


