The Design and Implementation of Handicraft Trading Platform Based on Intelligent Mobile Terminal

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Abstract. At present, the marketing channel of handicrafts is single, and there is no professional platform related to handicrafts, so a handicrafts trading platform based on intelligent mobile terminal is designed and developed. The platform consists of the client and server. Users log on to the platform through the smart mobile client, after which they can publish works, buy works, post comments in works, find works by category, or follow the authors they like. The server uses MySQL to store data and information. The users on the trading platform can be both sellers and buyers, who gather for their hobbies and specialties. Through this platform, users can learn and communicate with each other to improve their skills, so it plays a supporting role in the inheritance and development of craft skills.

Keywords: Smart mobile terminal, Handicraft trading platform, Client, Server

1 Current status of research

The production of handicrafts has a very long history in our folk, and is also the treasure of our Chinese culture and art [1]. The sales mode of handicrafts is still relatively single, and they are mainly sold in physical stores. This sales mode is rigid and has high cost. Lack of handicrafts related professional platform on the Internet, even in a few large shopping platform in the classification of the arts and crafts, but this way of sales still seem to be more blunt, consumers can only buy to buy, and can't achieve customer direct dialogue with the author, producers can really grasp the needs of the consumers, consumers can only choose their creators work satisfactory, and not be able to communicate his ideas to producers. Now, online sales have replaced physical store sales and become the mainstream of the market. Among consumers who buy from online platforms, those who shop on mobile devices greatly exceed those who shop on PC devices [2].

According to the current situation of the market, a handicraft trading platform based on smart mobile terminal is designed, which enables handicraft makers to show their skills on the platform and provides a professional purchasing platform for handicraft consumers, so that handicraft makers and consumers can communicate in real time. The customers provide their own needs and inspirations to the producers, and the producers give feedback
to the customers with their refined skills and unique techniques. Meanwhile, the artisans can communicate with each other and learn from each other's experience on this platform.

2 The design of handicraft trading platform based on intelligent mobile terminal

The system consists of five modules: management, login, latest popularity, popular query and user personal module. The client includes login module, latest popular module, popular query module and user personal module. The server side mainly contains the management module. The functional module diagram is shown in figure 1.

![The Design and Implementation of handicraft trading platform based on intelligent mobile terminal](image)

Figure 1. The function module diagram of the system.

3 The realization of handicraft trading platform based on mobile intelligent terminal

3.1 The implementation of login module

This module mainly realizes the user's login and registration. When using the trading platform for the first time, you must register an account to log in. The trading platform's functionality can only be used after the user has logged in. When the user registers, the server side will first determine whether the account has been registered. If it is already registered, the user is prompted "the account is registered"; otherwise, the data is written to the database user table, and the "registration is successful" is prompted for page jump. If the write fails, the user is prompted for a failed registration and is asked to re-register. After the user has an account, the login is performed in the login interface. After successful login, the user is prompted to "login successfully"; when the login fails, the user is prompted to "the user does not exist or the password is wrong".

3.2 Implementation of the latest popular modules

The latest popular module contains the latest works, works message, the latest author and several other functions. On the latest works page, users can view the latest works on the shelf, click on the works to see the details of the works and the author of the works, also can reply to the works and buy.
3.2.1 The latest works

When the user successfully logs in, he/she will enter the main page of the APP, which is the page of the latest works, and show the user some newly released works of the handicraft trading platform. First, the UserMessageFragment class initiates a request to the server side. After the server side receives the request, it will query all the data in the usermsg table and arrange them in descending order according to the ID of the works. After the user works query, the AuthorFragment class initiates a request to the server side. After the request is received on the server side, all of the data in the user table is traversed, arranged in a power-down order according to the user's ID. After traversing both the user information and the work information, the MainAdminFragment class adds the information to the collection, finally opens the Fragment transaction in the FrameworkActivity class, and maps the retrieved work information and author information into the listview. After the user clicks on one of the works in the list, it goes to the details page of the work. The operation effect is shown in figure 2. When the user sees the details of the work and thinks it is his favorite work and wants to buy it, he clicks the "buy" button to enter the "buy" interface. When entering the work purchase page, the PayMessageActivity class first makes a request to the server side to send the information of the work to the server side. After the server side receives the data, it inserts the purchase record into the ordermsg table. The results are shown in figure 3.

![Figure 2. Detail interface of works.](image1)

![Figure 3. Purchase interface.](image2)

3.2.2 The comments on works

After the user has viewed the details of the work, if he has some comments on the work or wants to communicate with the author or other users who view the work, he can click the comment button in the upper right corner to comment on the work. When the user finishes entering the message content, the TopicMessageActivity class first initiates a request to the server side. After the server side receives the request from the client side, it inserts the message information into the reviewmsg table. So far, the message is successful. Moreover, the work message interface should display all the message contents of the work, so the client side should initiate a request again. After receiving the request, the server side will
pass the work ID passed by the client side, look up all the message contents of the work from the reviewmsg table, and finally map out the data with the listView.

3.2.3 The latest author

In addition to the latest works, another popular module is the latest author. When users click on the latest author, they can view some of the latest registered users. When users click on these authors, they can see the works of the author and follow the author. After clicking the latest author page, the UserArtListActivity class first makes a request to the server side. After the server side receives the request, it queries all the data in the user table and arranges them in descending order according to the user id. Finally, it maps out the data with the listView on the page.

3.3 Implementation of hot query module

The popular query module can be divided into three parts: the work name, the author and the work category. After users click the query button, enter the query page, enter what you want to search in the search bar works of relevant information, and then the system can automatically identify the user input the title or the author or category, after qualified to find the work, displayed on that page, if the query result is empty, the display content is empty. When users click the search button in the upper right corner of the APP, they can enter the popular query module. In the search bar, they can search according to the author's nickname, work name or work type. First, the SearchActivity sends a request to the server for the conditions of the query. After the server receives the request, the fuzzy query is used to traverse the usermsg table to find all works that meet the conditions. Finally, on the work search interface, the works searched are mapped with the listView.

3.4 Implementation of user personal module

All the content of the user's personal module is related to the user himself. First, users can set their own basic information, such as nickname, signature, and so on. Secondly, they can see the authors they follow and who they are. Then they can publish their works and remove their works, so as to manage their works. After clicking "mine", users can enter the user personal module, where they can view their information and change their password in the personal information tab of the user personal module. When users click on modify the password after the first, then jump to UpdatePswdActivity interface, when change the password, the first thing to enter the original password and new password in the input information is correct before UpdatePswdActivity initiate requests to the server end, and the required parameter transmission in the past, the server after receiving the request, according to the user id to find the corresponding data in the tab, you can see who has followed you. When the user clicks "my fans", it jumps to MyFansActivity class and makes a request to the server side. After the server side receives the request, it looks for people who are concerned about the user according to the user id sent by the client side. Finally, it USES the listView to set the query result on MyFansActivity. When users click the red button on the works page, they can upload and post their works. In the process of uploading the work, you can set the title of your work, define a detailed introduction, and you can submit pictures of your work for your reference. Before uploading the work, first set the image to determine the path where the image is located. After determining the path, determine whether the target file is an image file. Then add the image and load the image specified by the user onto the page. After the above operation is completed, the user fills in the relevant information and sends a request to the server.
3.5 Implementation of management function module

The management module is specially designed for the system administrator to manage the whole handicraft trading platform, only the administrator can log in. The administrator can directly manage the information of handicraft trading platform through the server, which can be divided into user management and user work management. The role of the administrator is to manage the system, if a user's nickname has violated the character, or the user has not logged in for a long time, then the administrator has the right to delete the user. When the administrator clicks the delete button, the form sends a request to the RegisterAction method to execute the delete statement and complete the user deletion.

4. Summary

The handicraft trading platform based on smart mobile terminal provides a sales and communication platform for handicraft makers and a professional consumption platform for consumers. The platform has met the public's demand for featured handicrafts, played a spreading role in the traditional culture and handicraft traditions of various ethnic groups, and played an auxiliary role in the inheritance and development of handicrafts.

References

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