



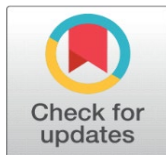


DESIGN AND IMPLEMENTATION OF BED HOME TEXTILES ONLINE SALES SYSTEM

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ABSTRACT

Nowadays, Information technology is developing very rapidly in the present era, great changes have taken place in people's way of life and work. E-commerce industry is also closely related to our life and has undergone great changes. Nowadays, more and more people shop online. More and more people hope that they can buy their own home textiles at any time and place. Through the online operation of network systematization, this form breaks through the traditional way of selling bed textiles, thus making the sales of bed textiles more independent and convenient. Compared with the traditional mode, it is more convenient, flexible, and efficient, and saves a lot of resources.

This article is based on the current situation of e-commerce industry and developed on myeclipse platform. Css, js, JQuery and Ajax are used in the front end of the WEB. The sales website of bed textiles can make online bed textiles sales more convenient, comprehensively improve the sales efficiency of bed textiles in the e-commerce industry and save more research time and energy.

Keywords: Bedclothes Household Textile Product, Sales Website, Myeclipse

1. INTRODUCTION

1.1. THE RESEARCH BACKGROUND

With the development of Internet technology, people's lives are changing with each passing day, from work, life and even way of thinking are changing, and the sales of our bedding and home textiles products are also affected by its profound impact. Nowadays, with the rapid development of the Internet era and the maturing of technology, more and more people begin to accept and get used to online shopping. The learning method using the Internet has infiltrated into our life imperceptibly. It is changing all aspects of our life, work, and study. The sales of bedding and home textile products is a very important part of our life, developing in a better direction. It has significantly improved the sales efficiency of people's bed

home textile supplies and is also an effective way to carry out modernization mode reform and improve the level of e-commerce industry. The current trend of Internet and computer technology in colleges and universities is the online sales system of bed home textiles supplies.

1.2. PURPOSE AND SIGNIFICANCE OF THE STUDY

Compared with the traditional way and online bed home textile supplies sales, the process is roughly the same, including home textile supplies information, order information, home textile supplies classification information, home textile supplies purchase, user information, etc. The traditional sales of bed home textile supplies give all these to offline operation, which greatly increases the workload and error rate and reduces the work efficiency. On the contrary, the online sales of bed home textile supplies become efficient and convenient, such as the information of home textile supplies, order information, home textile supplies classification information, which not only reduces the consumption of resources, but also liberates the pressure of management. The design purpose of the bed home textile products online sales system is to change the traditional bed home textile products sales, to achieve paperless, more quickly and accurately reflect the real situation of the e-commerce industry, in line with the needs of the e-commerce industry, greatly saving manpower, material resources and time. Bed home textile products online sales system using the Internet media also has the following advantages: users can get rid of the restrictions of time and place, can carry out online bed home textile products sales anytime and anywhere, through the database technology to establish a suitable database will also be the traditional bed home textile products sales process has been greatly simplified. It also has such advantages as real-time and accuracy [] [Lu \(2020\)](#).

1.3. RESEARCH STATUS AND EVALUATION AT HOME AND ABROAD

Domestic relatively early and mature online home textile products sales platform to now, has nearly 20 years of history, our country's e-commerce industry started late, but after ten years of research and development, or made a certain result. Although the domestic theoretical research is flourishing, but the large-scale practical application has not been popularized. Although the existing sales platform of a certain number of bed home textiles products has been applied, it still needs the close and in-depth cooperation between e-commerce industries. At the same time, the resource content of the bed home textile products sales platform tends to be simplified, and the content and type of e-commerce industry resources are relatively scarce, which is not a popular way. The late popularization of related resources also delayed the popularization process of some Chinese e-commerce industry, in the early promotion there will inevitably be some non-rationalization content, I believe in the near future, under the strong support of the country, draw lessons from the development experience of foreign countries, take its essence, our bed home textile products sales career will achieve rapid development and progress.

1.4. MAIN CONTENTS OF THE SYSTEM

First of all, before I began to design the system, I consulted information and conducted market research on the Internet to learn more about the online sales website, summarized the main functions of the website, and at the same time, I could

understand the main significance of the sales website more clearly. Only in this way can I better understand the perspective of consumers and users. Based on the user's favorite way to better function of the site design planning. Through a large number of research and investigation, the analysis of demand, the overall appearance of the advantages and disadvantages of most online consumption websites, and the overall feedback of users, through optimizing the actual experience of users, so that more users can use the website more convenient and fast and retain users.

The bed home textile online sales website mainly wants to provide you with an online can easily buy daily use of bed home textiles supplies, the system is divided into front end and back end of two parts. The front-end functions mainly include the registration of new users, user login, user personal information modification, commodity browsing, search and view, purchase of goods, payment of additional goods, receipt of payment products and completion of orders of goods after sale; The functions of the back end mainly include administrator login, viewing all information of registered users, viewing information of goods already on the shelf, modifying and deleting information of goods, placing new goods on the shelf, viewing orders of users, delivering orders, and viewing the evaluation of completed orders.

2. SYSTEM REQUIREMENT ANALYSIS

2.1. SYSTEM DESIGN OBJECTIVES

The system design goal is to build a home textile products on the bed of an online sales websiteide people with a convenient and reliable consumption platform, so that you can choose their favourite supp, to provlies at home, and through the network way to buy, save the line down shopping mall selection time, to provide convenience.

2.2. FEASIBILITY ANALYSIS

2.2.1. ECONOMIC FEASIBILITY ANALYSIS

China's e-commerce has been found to be in the leading stage in the world, the development of domestic e-commerce has tended to mature, people's acceptance of online shopping has reached a high degree, e-commerce has promoted the development of the global economy, e-commerce is an opportunity of The Times. With the gradual development of the Internet, online shopping has become an essential part of consumption for the vast majority of people. More people tend to shop online to experience the convenience brought by online shopping. At the same time, e-commerce consumption economy has occupied an important position in China. The mechanism and management regulations of e-commerce are more perfect, and the connection between various departments of e-commerce and the third party is closer. We are in the Internet era. With the popularization of Internet and its gradual penetration in our daily life, more and more people will have access to the Internet and e-commerce [] [Bingjia \(2019\)](#). Especially in the context of the epidemic, when People's Daily life is restricted to a certain extent, online shopping is bound to become a convenient and safe choice for people with few digits. According to the data consulted by the current global e-commerce industry, the annual sales still show a steady growth trend, online shopping has been firmly established in most regions of the world. Therefore, the development of e-commerce and the design of e-commerce websites are economically feasible.

2.2.2. TECHNICAL FEASIBILITY ANALYSIS

The bed home textile online sales website is easy for users to access and use, because the website is a portable shopping platform for people to access relatively often, at the same time, such a sales website is not a high occupation of the memory of mobile devices. It allows users to shop directly on the device they browse. In the design of the sales system, the website page is brief and easy to understand, users can easily find their own functional requirements, is the use of a better sense of experience, so that most users can easily use the system and shopping. About the back-end administrator end, the background operation is simple, convenient for management personnel to quickly carry on the maintenance of goods and other processing. From what has been said above, we can obtain that it is feasible in terms of technical feasibility.

2.3. TECHNOLOGIES AND DEVELOPMENT TOOLS INVOLVED

This design will use Java language, through the eclipse platform development. css, js, JQuery, Ajax and other technologies are used in the front end of the WEB.

2.3.1. JAVA

Java contains the following sections: language, syntax specification. Keywords if, for, class and so on, write source code source code, dependency library, standard library, third party library. The underlying code is too difficult to use and inefficient to develop, encapsulated into an off-the-shelf, JVM virtual machine. Bytecode runs on the JVM [] [Lu \(2020\)](#).

2.3.2. ECLIPSE TOOL

Eclipse is an open-source software development project focused on providing a fully functional, commercial-quality industrial platform for highly integrated tool development [] [Jin et al. \(2018\)](#).

2.3.3. MYSQL

The SQL language used by MySQL is the most commonly used standardized language for accessing databases. Due to its small size, fast speed, open source and other characteristics, the development of small and medium-sized websites generally choose MySQL as the website database [] [Kai \(n.d.\)](#).

2.4. BUSINESS PROCESS ANALYSIS

2.4.1. FRONT-END CONSUMER ANALYSIS

First of all, register an account to become a user, and then log in to the website to browse the goods through search and classification. Users modify and delete the goods added to the shopping cart and submit them. At the same time, they view the real-time information of the submitted orders and evaluate the completed orders. The main needs of users are:

- 1) Registration and login requirements of new users: Users first need to register on the homepage of the website. After successful registration, users can log in to the website using the registered account and password.

Users can modify the password, personal information, and harvest address in the personal center.

- 2) Browsing and additional purchase requirements: After logging in to the website, users can search and browse products on the home page, or search for products in the classification, and add them to the shopping cart.
- 3) Comparison of shopping demands in user's shopping cart: Users can operate and process the goods added to the shopping cart, submit the goods order, fill in the correct harvest address and contact information, and select the required payment method.
- 4) Order management requirements of users: After submitting an order, users can check the real-time status of the order through the order center and evaluate the completed order.

2.4.2. BACKGROUND ADMINISTRATOR ANALYSIS

The main operation of the background administrator is to view user information, query and modify commodity information, review order information, order delivery, the main requirements of the administrator are:

- 1) Administrators view user information: In the background user center, view the registration information of all users.
- 2) Administrator query and modify commodity information: in the background administrator can view all commodity information, modify, and delete the commodity information on the shelf, can also add new commodities, so as to better optimize the foreground user experience.
- 3) Order query and delivery: The administrator can view the user's orders, deliver the orders that have been generated, and wait for the user's confirmation of receiving the goods.

2.4.3. FLOW CHART

Figure 1

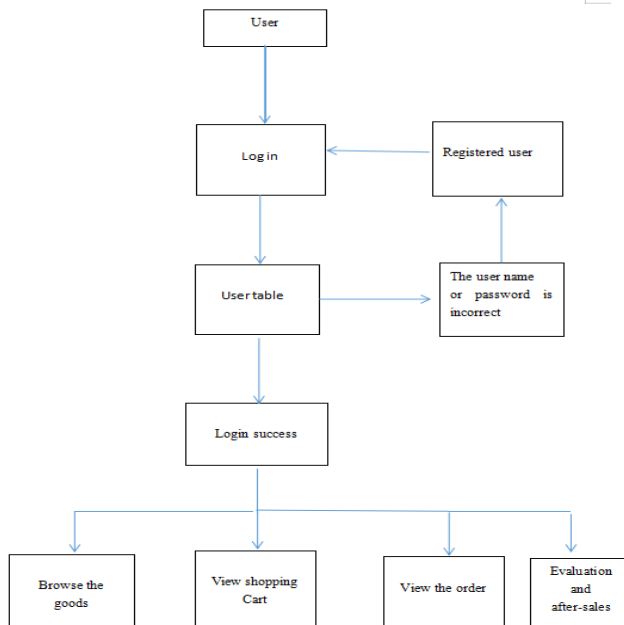


Figure 1 Flowchart of User Requirements

Figure 2

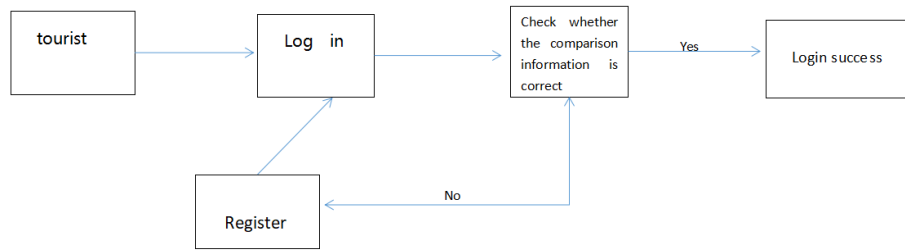


Figure 2 Flowchart for Registering a New User

2.5. DATA FLOW DIAGRAM

All newly registered users of this system can enter the website after login to search and browse all goods, and like the appropriate goods to add to the shopping cart, submit the order in the shopping cart, add personal information and harvest address, and then order payment, waiting for the goods to receive and confirm the receipt of goods, to complete the order evaluation, after-sales processing; The administrator can modify the published goods in the background, view and deliver the orders submitted by the user, and add new goods. According to the above analysis, we can get the top data flow diagram of the bed home textile products online sales website.

2.6. DATA DICTIONARY

2.6.1. DATABASE TABLE STRUCTURE DESIGN

The database structure of the website is roughly divided into four parts, respectively: user information structure, commodity information structure, order information data structure, evaluation information structure. The details are shown in the following table.

The information structure about the user contains attributes: username, password, gender, age, photo, and contact information: [Table 1](#)

Table 1

Table 1 User Information Structure
Data structure: User information
Description: User's personal information
Composition: Username, user password, user gender, user age, photo, contact information

Structural information about an item contains attributes such as item number, name, price, stock, picture, and type: [Table 2](#)

Table 2

Table 2 Lists the Product Information Structure
Data structure: commodity information
Description: Information about the structure of the product
Composition: Item number, name, price, stock, picture, type

The information structure about the order contains attributes such as the order number, receiving information, contact information, name, order date, and order status: [Table 3](#)

Table 3

Table 3 Lists the Order Information Structure
Data structure: order information
Description: Information structure of an order
Composition: Number, harvest address, name, contact information, order date, order statu

The attributes of commodity evaluation include commodity name, price, picture, and evaluation content: [Table 4](#)

Table 4

Table 4 Commodity Evaluation Information Table
Data structure: commodity evaluation
Description: Commodity evaluation information
Composition: commodity name, price, picture, evaluation content

2.6.2. MAIN DATA STREAM DESIGN

Table 5

Table 5 User Information Registration
Name of the data stream: User information registration
Description: After a user registers his/her personal information, a user information table will be generated. The attributes of the user information include the username, mobile phone number, age, gender, and picture
Data flow Cause: User registration information
Data flow target: user information table

Table 6

Table 6 Order Information
Name of the data stream: order information
Description: Users browse products on the website, add to the shopping cart and successfully submit the goods. After the order is generated, the order table is generated. The order information contains the attributes of the order number, time, amount, user's name, mobile phone number, delivery address and order delivery status
Data flow Cause: The user successfully submitted the order
Data flow target: order information table

Table 7

Table 7 Commodity information
Name of the data stream: commodity information
Description: The administrator can modify and delete the goods of the website through the background, but also can say that the new goods on the shelf
Data flow Cause: Added, modified, or deleted by the administrator

Data flow target: commodity information table

2.6.3. MAIN DATA ITEMS

Table 8

Table 8 User Information

Name of the data item: user number

Description: User number, which is unique and cannot be empty

String length: Int (11)

3. SYSTEM SUMMARY DESIGN

3.1. OVERALL STRUCTURE DESIGN OF THE SYSTEM

The graduation design goal is to develop the bed home textile supplies online sales website. Committed to the development of an online home textile products sales website, which can enable users to buy home textile products from offline to expand online, the product categories will be clearly differentiated and shown to users, so that users in the process of buying more convenient. The system has two modules: front-end user and back-end administrator.

Front-end consumers can become new users through registration. Users can enter the website through login information, and users can view and modify their registration information in the personal center. Users browse products by searching categories and other methods. Users can add goods to the shopping cart and operate the added goods at the same time. Users can submit orders and pay in the shopping cart, view the status of orders, receive, and process the shipped orders, and evaluate the completed orders.

After login, the back-end administrator can view the registration information of all users, view, modify and delete the goods on the website, and also add new goods. View the orders submitted by users and perform delivery processing on the orders, view the user's evaluation and after-sales.

3.2. SYSTEM MODULE DESIGN

3.2.1. FOREGROUND FUNCTIONS

After successful registration, the user can log in. After entering, the user can browse all the goods, add the user's delivery address, view the goods in the shopping cart, order payment, view the real-time status of the order, evaluate the completed order, view, and modify their personal information.

- 1) User registration and login: Users can register as new users when browsing the website, and enter the username and password to log in.
- 2) Browsing products: Users can browse products on the website freely after logging in, and view products through the home page, search, and classification, which is convenient and effective.
- 3) User personal information management: Users can view their own information after logging in to the website and modify the information in question.
- 4) Shopping cart function: After browsing goods, users can add goods to the cart, delete, add, and modify the goods that have been added to the cart, and make order submission and payment for the goods in the cart.

- 5) User order management: Users can check the real-time status of orders through the order center, whether to deliver and confirm receipt of goods, and evaluate and process completed orders.

3.2.2. SYSTEM BACKGROUND FUNCTIONS

Administrators can view information about all registered users, manage items already on the shelf, list new items, view order information, ship, and view ratings.

- 1) View user management: The administrator can view the information of all registered users.
- 2) Commodity information management: the administrator can view, modify, and delete the goods already on the shelf, and can also put new goods on the shelf.
- 3) Order information management: the administrator checks the generated order, processes the delivery of the order, and waits for the confirmation of the receipt of the order.
- 4) Order evaluation: The administrator can view the user's evaluation information after the end of the order.

3.3. DATABASE DESIGN

3.3.1. E-R DIAGRAM

E-R diagrams, also known as entity-association diagrams, provide a way to represent entity types, attributes, and associations. Is a way of representing a conceptual relationship model. The following figure shows the system E-R.

3.3.2. DATABASE TABLE DESIGN

The online sales website of bed home textiles supplies uses MySQL database to process associated data. The online sales system of bed home textiles supplies includes the following table: [Table 9](#), [Table 10](#), [Table 11](#), [Table 12](#), [Table 13](#).

Table 9

Table 9 Address Table Notes: Addresses			
Field	Types	Null	Note
id (主键)	Bigint (20)	No	Primary key
addtime	timestamp	No	Creation time
userid	Bigint (20)	No	User id
address	Varchar (200)	No	Address
name	Varchar (200)	No	consignee
phone	Varchar (200)	No	telephone
isdefault	Varchar (200)	No	Default address Yes/No

Table 10

Table 10 Cart Table Notes: Shopping Cart Table			
Field	Types	Null	Note
id (主键)	Bigint (20)	No	Primary key

addtime	timestamp	No	Creation time
tablename	Varchar (200)	Yes	Home textiles table name
userid	Bigint (20)	No	User id
goodid	Bigint (20)	No	id of home textile products
goodname	Varchar (200)	Yes	Name of home textiles
picture	Varchar (200)	Yes	picture
buynumber	Int (11)	No	Purchase quantity
price	float	Yes	Unit price
discountprice	float	Yes	Membership price

Table 11

Table 11 Chat Table Notes: Online Customer Service

Field	Types	Null	Note
id (主键)	Bigint (20)	No	Primary key
addtime	timestamp	No	Creation time
userid	Bigint (20)	No	User id
adminid	Bigint (20)	Yes	Administrator id
ask	longtext	Yes	Ask questions
reply	longtext	Yes	reply
isreply	Int (11)	Yes	Reply or not

Table 12

Table 12 Config Table Comments: Configuration Files

Field	Types	Null	Note
id (主键)	Bigint (20)	No	Primary key
name	varchar (100)	No	Configuration parameter name
value	varchar (100)	Yes	Configuration parameter value

Table 13

Table 13 Discuss Shangpinxinxi Table Notes: Home textiles information comment table

Field	Types	Null	Note
id (主键)	Bigint (20)	No	Primary key
addtime	timestamp	No	Creation time
refid	Bigint (20)	No	Associated table id
userid	Bigint (20)	No	User id
nickname	varchar (200)	Yes	User name
content	longtext	No	Comment content
reply	longtext	Yes	Reply content

4. REALIZATION OF SALES SYSTEM FOR BEDDING HOME TEXTILES SUPPLIES

4.1. REALIZATION OF EACH FUNCTION MODULE OF THE SYSTEM FOREGROUND

4.1.1. FRONT PAGE INTERFACE

The home page mainly displays the main basic functions, including wheel casting screen, commodity information display, popular zone display. As shown in the picture below.

Figure 3



Figure 3 Front Page Page

Figure 4



Figure 4 Product Information Display Page

Figure 5



Figure 5 Popular Zone Display Page

4.1.2. LOGGING IN TO THE REGISTRATION PAGE

The user needs to fill in the account name, password, name, age, and mobile phone number. After completing the information, click Register. After successful registration, the user will jump to the login page again and enter the registered account password to complete the login, as shown in the figure below.

Figure 6

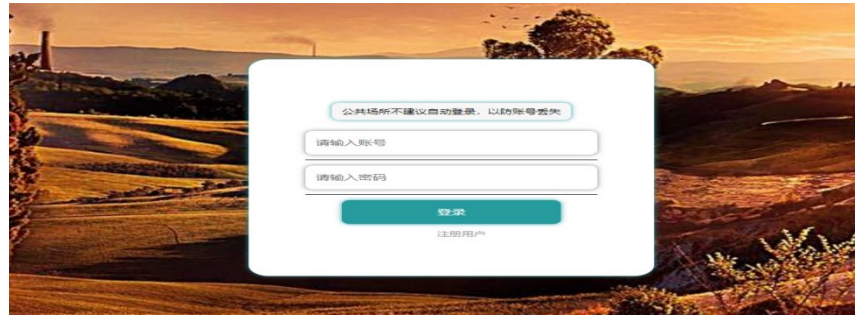


Figure 6 User Login Page

Figure 7

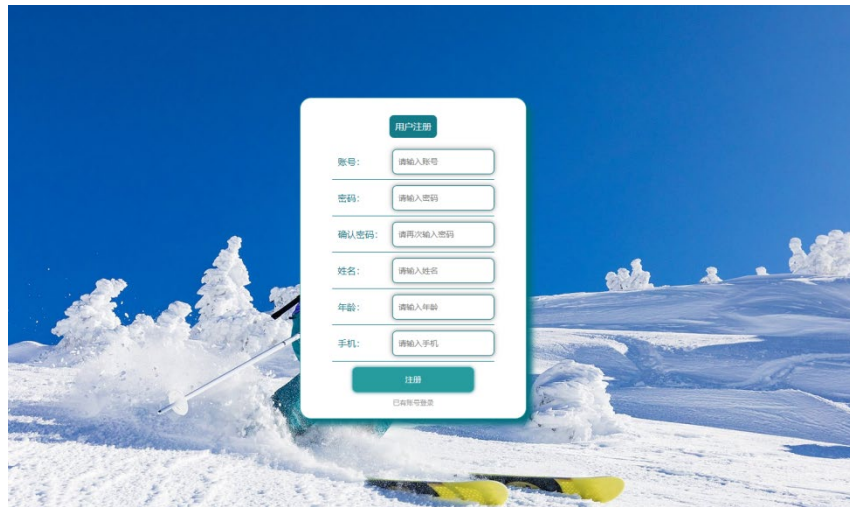


Figure 7 User Registration Page

4.1.3. USER PERSONAL CENTER

After logging in to the website, users can enter the personal center to view and modify their information, can view the order, delivery address and so on. As shown in the picture below.

Figure 8



Figure 8 Viewing Personal Information

4.1.4. COMMODITY INTERFACE

Users can click on the commodity information on the home page to view all the commodities and purchase additional commodities. As shown in the picture below.

Figure 9

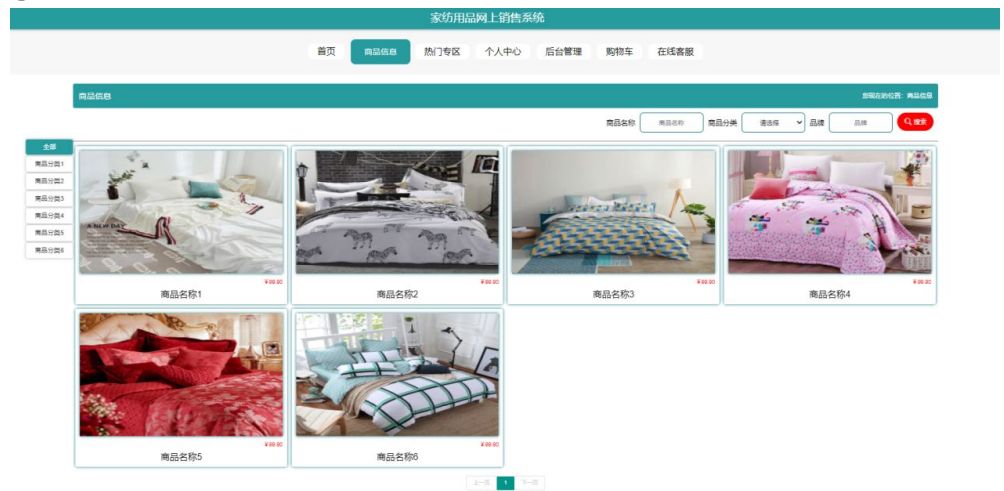


Figure 9 Product Information Display Page

4.1.5. SHOPPING CART PAGE

After adding the goods to the cart, the user can view the information of the goods that have been added, as shown in the figure below.

Figure 10



Figure 10 Shopping Cart Page

4.1.6. ORDER VIEW PAGE

After successful payment, the user can inquire the order status and order information through my order. After the merchant completes the delivery, the user can choose to receive the goods successfully and evaluate the completion of the order for after-sales processing. As shown in the picture below.

Figure 11



Figure 11 Query order page

4.2. IMPLEMENTATION OF VARIOUS BACK-END FUNCTION MODULES OF THE SYSTEM

4.2.1. ADMINISTRATOR LOGIN PAGE

Select the administrator option to log in to the administrator background, as shown in the following figure.

Figure 12

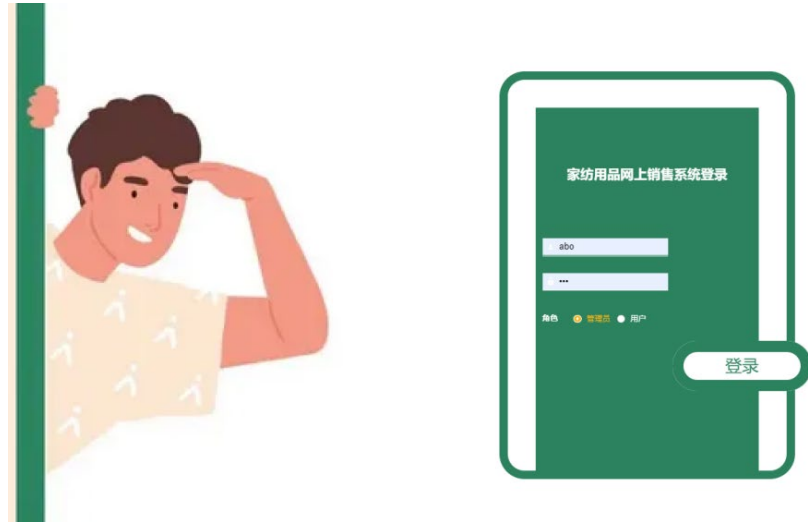


Figure 12 Administrator Login Page

Figure 13



Figure 13 Background Management Page

4.2.2. COMMODITY AND USER INFORMATION, ORDER MANAGEMENT INTERFACE

Administrator to their own account password to change, view user information, management of commodity classification, commodity information management, order management. As shown in the picture below.

Figure 14

Figure 14 Change Administrator Password Page

Figure 15

ID	姓名	性别	年龄	国籍	手机	照片	操作
1	张华1	男性1	1	美	13623400001		删除 修改 重置
2	张华2	男性2	2	美	13623400002		删除 修改 重置
3	张华4	男性4	4	美	13623400004		删除 修改 重置
4	张华3	男性3	5	美	13623400003		删除 修改 重置
5	张华4	男性4	6	美	13623400006		删除 修改 重置
6	11	是				无照片	删除 修改 重置
7	张华5	男性5				无照片	删除 修改 重置

Figure 15 Viewing User Information

Figure 16

ID	名称	家纺用品分类	操作
1		类目分类1	删除 修改 重置
2		类目分类2	删除 修改 重置
3		类目分类3	删除 修改 重置
4		类目分类4	删除 修改 重置
5		类目分类5	删除 修改 重置
6		类目分类6	删除 修改 重置

Figure 16 Managing Product Categories

5. SUMMARY

This graduation project of online sales system of bed home textiles products has been completed after several months. With the selection of topic at the beginning and the determination of topic content to the completion of the current design system and the completion of the paper, I have personally felt my progress. From the beginning of thinking about topic selection to the confirmation of topic selection and then to the later design and production, I have encountered a lot of difficult problems. Because of my lack of knowledge, I often encountered many problems in the implementation of functions. I searched for information and consulted predecessors everywhere. Gradually, I will understand the implementation methods of many unknown functions and integrate the information with my original knowledge reserve. The process of designing the system is also a process of increasing my knowledge reserve and reading more knowledge. From the overall design framework of the system at the very beginning to the realization of each function of the system one by one, the process is a coexistence of anxiety and joy. Of course, in this overall process, a deep understanding of the amount of knowledge needed to create a system, need to have the overall layout of the site thinking, need to have high patience in the whole process, because in the process of designing the website, a letter a code error will lead to a lot of problems. During this period of time, I have improved my patience and carefulness. Through this design process, I have improved my experience to a certain extent, and I believe it will play a good role in anything in the future.

About the sales website of bed home textiles supplies, the overall layout page design is simple and beautiful, fit the user's use habits, can make users more clearly find their own needs, improve the user experience is one of the most important. After many times to the system test, including login function test, background administrator management rights test, system database test. Bed home textile products online sales website as a whole system run test feedback effect is good, to achieve the desired effect degree. For an online sales website for a variety of practical functions have already existed, of course, to become a real mature and public oriented online shopping system is still insufficient, the required functions are also more than this, the follow-up also needs more perfect function addition, framework arrangement, need more debugging and testing. There is still a big gap between the online sales system of bed home textile supplies and the formal online sales system. We also need to constantly improve the website, learn from other excellent websites, find out more of our own shortcomings, take the essence to the dregs, and constantly improve and innovate.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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