Based on the Android Platform “Early Adopters” of APP Design and Implementation

JIAHUI LIANG, JING CHANG and SONGTAI LI

ABSTRACT

This paper describes a design and implementation of APP based on the early adopters of Android platform, the system uses the Java programming language, based on the development of Android Studio. The server uses the Tomcat+Eclipse+Struts2 architecture and combines the MYSQL database to build it. Users can use the APP scan code to experience the product trial, and also can feedback the trial products, and provide a good platform for enterprises to understand their products.

KEYWORDS
Java programming language, Eclipse development tool, data base MYSQL

INTRODUCTION

With the vigorous development of the Internet in recent years, e-commerce has gradually come into people's vision and developed rapidly, and various commodities are emerging in various aspects, which are full of people's vision. The face of the same field of dazzling goods, people make choices are not the same, and in this market, people recognized high commodity, its corporate profits are amazing. How was one step ahead of the attitude of the people and the introduction of products are widely welcomed by the market accurately? In view of this phenomenon, the electricity supplier to the target user group as the center, to provide certain types of people with their characteristics, a variety of goods to fit the depth of their needs. Customization is a term of the media industry, is a kind of market diversion, differences in information needs of readers as the variable of market segmentation and marketing means to provide tailored information services for different readers. The first pick of the user, and then make the service content, so also is the essence of focus [1]. Sub focus electricity supplier is also true; it is no longer a commodity centric, but to user centric, service target users, and around the target users to break the limitations of commodity classification, providing users with a full range of services. In order to enable enterprises to launch new products to better market and achieve sales expectations, the electricity supplier in the new market for the formal sale let people through laying around samples for machine code scanning experience of the trial, the collection and analysis of user feedback information to determine the level of interest in trying to consumers of the product. If the new product is more popular, then the number of users will increase accordingly.

Jiahui Liang, Jing Chang, Songtai Li, South China Business College Guangdong University of Foreign Studies, Guangzhou, China
When the number of users reaches a certain level, it will produce a certain degree of visibility and user stickiness. As a result, the enterprise can carry out market research according to the user's trial information, determine the market demand of the product, and more accurately introduce the audience's products.

ANALYSIS OF "EARLY ADOPTERS" APP DEMAND

Early adopters of APP as samples for machine matching software, taking into account the characteristics of its function, we can draw the following requirements:
(1) Register your account or login the account;
(2) Check your account information and product information you have tried;
(3) Sweep code to receive commodity trial function;
(4) According to the product reviews and feedback functions.

THE FUNCTIONAL DESIGN IN THE "EARLY ADOPTERS" APP

Early adopters of APP by the registration module, login module, comments module, scan code module, history record module and etc., are functions: user registration, user login, add user comments, scan code to receive the goods the trial installation, the recommend different goods, check and management of historical records. The software function of the overall structure is shown in figure 1.

DATABASE DESIGN

According to the function of APP, we can get the following relation: (1) user information includes user name, password, nickname, gender; (2) commodity information includes commodity name, commodity introduction, commodity price, number of recipients, and there should be a unique commodity, ID, to be uniquely identified; (3) the history record contains the user ID and the commodity ID; (4) comment contains user nicknames, commercial ID and comments; (5) has received the goods and commodities including user ID ID; (6) administrators include user names and passwords.

![Figure 1. The functional block diagram of early adopters of App.](image-url)
TABLE 1. USER INFORMATION TABLE.

<table>
<thead>
<tr>
<th>Column name</th>
<th>Data Type</th>
<th>Length</th>
<th>IS NULL</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username</td>
<td>Char</td>
<td>20</td>
<td>NOT</td>
<td>user name</td>
</tr>
<tr>
<td>Password</td>
<td>Char</td>
<td>20</td>
<td>NOT</td>
<td>password</td>
</tr>
<tr>
<td>name</td>
<td>Char</td>
<td>20</td>
<td>YES</td>
<td>nickname</td>
</tr>
<tr>
<td>sex</td>
<td>Char</td>
<td>2</td>
<td>NOT</td>
<td>sex</td>
</tr>
</tbody>
</table>

TABLE 2. TABLE USER COMMENTS.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
<th>Length</th>
<th>IS NULL</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>UserName</td>
<td>Int</td>
<td>20</td>
<td>NOT</td>
<td>nickname</td>
</tr>
<tr>
<td>GoodsId</td>
<td>Int</td>
<td>5</td>
<td>NOT</td>
<td>Commodity ID</td>
</tr>
<tr>
<td>Comment</td>
<td>Char</td>
<td>200</td>
<td>NOT</td>
<td>content</td>
</tr>
</tbody>
</table>

For limited space, this article only lists the specific design of the two tables. The design of the user information table is shown in Table 1. The design of the user comments table is as shown in Table 2 [2].

SYSTEM IMPLEMENTATION

Early adopters of app using JSON and server asynchronous data exchange. Through the okhttp network framework using post way to send specific information to the server to get data from the server, and the conversion of [3]. Such as the main interface of data acquisition data through JSON, by sending a request to a server to obtain product data acquisition to convert data into an array of JSONArray, through the for cycle data will be removed, displayed on the interface. The main interface of data access: by sending a request to the server to get the product data, will gain access to the data into the JSONArray array, in the cycle of data through the for cycle will be removed, displayed on the interface. The comment function: comment text through the okhttp frame is sent to the server, and the server will save the text to a table of data corresponding to product reviews in the database, and updating the app page and at the completion of the operation, to obtain comments, will add new comment refresh. Scan code function: first in the project into the new two-dimensional code package libzxing function, and then through the Intent jump to the Capture Activity package, and the two-dimensional code information inside the method analysis of scanned, and then obtained the two-dimensional code information in the onActivity Result, and the corresponding logic operation according to the two-dimensional [4] code information.

CONCLUSION

This paper describes the design and implementation of the Android platform “early adopters” based on App, users can register, login, scan code, comments, personal history and other operations, and the use of the front page of data acquisition, data processing and background separation, greatly enhance the App user experience effect. The mobile phone application to meet the basic the promotion of commodity demand trial, to facilitate the majority of manufacturers to obtain product prospects. The system test shows that the early adopters of APP design is reasonable, the performance is good.
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Jing Chang, Institute of Information Science and Technology South China Business College Guangdong University of Foreign Studies, Guangdong, Guangzhou 510545, China.

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