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Design of Logistics Distribution of Fast Food Group Purchase on the Campus of the University

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Abstract: In order to meet the needs of teachers and students in our school on studying and living for time and other factors, we put forward to establish the logistics distribution system for fast food group purchase. The system simulates the company running on the web application in intelligent mobile phone based on Android system platform. By the system we can release the campus catering information. The individual or a group of teachers and students can use mobile client to choose catering information at any time. Through the unified collection of catering needs, we can realize the fast and uniform distribution. The establishment and operation of the virtual company both establish a quick and effective supply and demand for teachers and students in food and beverage department, but also save the resources, meanwhile provide a new business model for students.

Keywords: Logistics distribution; Fast food; Group purchase; Intelligent mobile phone; Android system platform

INTRODUCTION

Group purchase, as a new e-commerce model, has its own group of consumers by a website to buy other forms from business organization, which can enhance the bargaining power of user and the business [1]. In recent years, heady mobile Internet becomes the new platform for the group purchase, and by the site navigation of the client it is convenient to obtain more and more consumers favor [2].

Group purchase is the group shopping, generally refers to consumers together in order to obtain the best price of a way of shopping, which can increase the bargaining power of the business [1]. According to the principle, businesses can give far below the retailed price and purchase separately with quality service.

The university campus is a knowledge intensive place with high cultural level and active thinking where the new things are easier to be accepted [3]. College students have many common interests and propensity to consume and the consumption goods is not the single. The university campus in the consumer groups with high quality is easy to accept new things, including the network consumption and other emerging pattern which carry out the network group to lay a good foundation. At the same time, they are still not achieve economic independence, belonging to the non-labor income groups, therefore, the purchase of goods and the price factor always play very important role, meanwhile the network group purchase fits well with the requirements of the consumer groups. Campus group purchase is for college students to buy the commodity [4]. Campus group purchase network contains the well-known businesses around the university to provide products and services, each of which is familiar to the students.

Logistics is the items from the supply to the receiving entity flowing process, including the actual needs, transportation, storage, procurement, loading, unloading, handling, packaging, distribution processing, distribution, information processing and other functions, where user can achieve the requirements by some of the process [5].

Logistics distribution is a sharing service model, which includes the integration of logistics resources, the use of logistics facilities and equipment, logistics management and so on. Specifically, the logistics distribution is logistics activities in a non-single business in the form, and it mainly includes the business flow, logistics and capital flow in the form of a business [6].

Object to the requirements of campus group purchase and logistics distribution, we put forward to set up a virtual network company to realize the logistics distribution of group purchase on the campus of the University, and the fast food is as an example.

METHODS

The general process of software development process includes software design ideas and methods, such as the function of software design, the implementation of algorithms, methods, software, and the overall structure design, of course, the module design, programming, debugging, program testing also should be considered. In software engineering, system analysis, design and realization are the main steps with above retailed [7].

Database system is developed to meet the need of data processing with a kind of ideal data processing where there are the actual operation of the storage, maintenance and application [8]. It is a software system which can provide data manage for storage medium, object and management system of assembly processing.

B/S structure is a kind of network structure mode after the rise of web, and the web browser is the main application software in the client. This model unifies the client, and the system function realizes the key part to the server, which has simplified the system development, the maintenance and the use [9]. The browser achieves the data interaction through the Web Server with the database. This greatly simplifies the client computer load, reduce the cost and workload of system maintenance and upgrade, and reduce the overall cost of the user.

Embedded development refers to the development in embedded operating system where it is for all electronic devices to develop on the operating system, including the mobile phones, handheld computers, mechanical and electrical systems, etc. [10].

Smart phone software development makes it possible for us to program the software on our mobile phone [11]. On the popular phone operation systems, we can design the function for ourselves by the embedded development. Android is one of the famous operation systems in mobile phone which provide open source design, so the application on Android is more and more popular on our mobile phone.

Web front-end development is from the evolution of the web page, which can make web content more vivid and provide more interactive forms of user experience so as to meet the needs of enterprise level [9].

RESULTS

After preliminary investigation, we found that a large proportion of the students and the teachers in part have the unreasonable eating habits of no breakfast and casual eating because of learning, activities, time, sleep and distance factors, which caused a serious impact on the physical and mental health of students and teachers. According to the campus catering needs of the teachers and students, combining with our school cafeteria and pedestrian street restaurant resources, we intends to establish a virtual company to finish the fast food distribution for campus group purchase. The whole company runs by group purchase system through mobile phone based on Android platform where we can achieve uniform distribution so as to meet various needs of teachers and students.

In order to finish the system, at first we need set up the database of the system so that we can store the data. In the database [8], table is the main structure. After we make requirement analysis of the database, we set up the conceptual structure by the entity relation where the entity and relation should be designed and the entity has the right characters. Based on entity relation graph, we set up the logic structure with relation table. We put the characters as the columns of the table with the data structure definition. At last, we put the catering information into the table to finish the database.

After the database, we develop the system based on Android platform by the Java language [12]. The system simulates the running of the company. The company operation mainly consists of two parts, one is to establish an Android mobile phone platform, and the other is a unified distribution. Android mobile phone platform releases the cafeteria or pedestrian street restaurant catering information and the users of the mobile phone client can schedule the catering at any time by submitting the meal time and location information. The catering supports individual ordering and group purchase and the payment supports online banking, We Chat and cash payment. By the system, we achieve the uniform distribution through the collection catering needs [13].

In the development, we put emphasis on the design of client functions. In the client, by the web application on Android system platform [9, 14], we design the functions of the system. The functions mainly include the web information release, information collection and processing. The owner of catering can release the catering information on the web service by their client terminal with the user and password. After the owners submit their information, we can collect and process the information so that the information can be displayed on the web client for everyone. All the information can be stored in the database of owners [15]. When we received the information, we will put the submitting information in the database, and then we will put the information on the web client. Everyone can install on the web application by the Android platform and get the catering information. All the people can select the catering items to submit their requirements by the displaying information. When we received the information, we will process the information on the owner table so that the owner can get the information and prepare the catering items.

After the information processing, we can simulate the logistics company to distribute the catering by the information in the system effectively [6, 8]. In the

database, we can select the ordering information and organize them by the group purchase based on the time, position and catering information. At last we distribute the catering for the teachers and students.

In the whole system, the functions are focus on the information processing, including the information releasing, information collection and storing, and information distribution. The basis is the Android system platform. Based on the system, the virtual company can run by the true company. In the campus of university, fast food is one of the popular ways for students to eat, and group purchase is suit for the students on studying and living. Group purchase of fast food in the campus can be realized by our Android application combing with the logistics distribution.

CONCLUSION

In this paper, we put forward an innovation project for campus group purchase on fast food. In the project, a virtual company provides quick meals and unified distribution service which not only solves the catering problem caused by a variety of factors of teachers and students, but also sets up a fast and effective supply and demand way for the teachers and students and the food beverage department. By the system we save time and reduce waste, at the same time it provides a chance for students work, meanwhile provide a new business model for the students.

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