

Design and Realization of Tourism Software based on IOS Platform

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ABSTRACT

With the continuous improvement of national consumption level, people's demand for tourist travel is growing. Tourism software cannot meet the current market demand because their function is too single. So the exploit of a tourism software is of great significance. This article designs a tourism software based on iOS Platform. This software has two modules, one is the scenic server and the other is the tourist client. Scenic spot administrators can introduce scenic spots, push attractions feature, update the price of attractions tickets and the conditions of surrounding traffic through the scenic server. Visitors can use the tourist client to browse travel strategy, search information, and share travel notes. The test results show that the software has many characteristics, such as less resource occupation, high efficiency, extensibility, simple operation and so on.

INTRODUCTION

With the rapid development of information and network technology, people's income level continues to grow, and the concept of consumption continues to improve. Tourism industry in the world has been rapid development. Before traveling, the tourists need to know the characteristics of attractions, the environment around the site, the evaluation from people who have been to the scenic spots. It is not enough to meet needs of tourists depended on the introduction of a single travel company. People are used to inquire about attractions by phone, but the amount of information on the Internet is not enough to meet people's needs [1]. Therefore, the design of a tourism service software is very meaningful.

At present, the two most popular foreign tourism software are Pocket and Gogobot[2]. The advantage of Pocket is that users can assemble all travel articles and videos to a platform, which can be viewed, shared, or commented on a variety of devices anytime and anywhere[3]. Gogobot, a travel app, lets users to comment on each other, to get advice from friends, and then to choose hotels, bars, coffee shops, hotels and so on[4-6]. Some others tourism software, such as: Tuniu, Qunar, Ctrip, their main functions are hotel reservations. There is no emphasis on the design of the travel notes and the functions of the tourist raiders. Specialized tourism software such as ant free travel software is aimed at niche groups and has not been popular with the public[7-8]. Although the development of foreign tourism applications is more perfect, they cannot be large-scale popularization in the domestic market because of lacking of localization[9]. The domestic popular travel notes software cannot meet the current market demand[10]. Thus, it is a major trend in the market to design a multi-functional tourism software.
In this paper, it designs a tourism software based on iOS Platform. It has two modules, one is the scenic server and the other is the tourist client. Scenic spot administrators can introduce scenic spots, push attractions feature, update the attractions tickets and the surrounding traffic conditions through scenic server.

Visitors can use the tourist client to browse travel strategy, search information, and share travel notes. The test results show that the software has many characteristics, such as less resource occupation, high efficiency, extensibility, simple operation and so on.

NEEDS ANALYSIS

In this paper, it analyses the basic needs of users according to market demand.

The scenic spot administrator's requirements analysis is shown in Figure 1. The scenic spot administrators are responsible for uploading photos of scenic spots, tickets, maps and other information to attract tourists. They can also upload information about the weather and parking lot near the scenic spots, classify the travel notes which uploaded by tourists according to the photos, time and other information. The administrators push features about the city in the main interface, such as specialty snacks, discounted hotels, etc. They should also analyze uploaded travel notes and travel strategies to improve the inadequacies of the service so that they can attract more tourists.

The tourism user's requirements analysis is shown in Figure 2. Tourism users are most concerned about the characteristics of the attractions, the scenery, and how to better visit the attractions and the city of the attractions. In addition, the tourism users most concerned about the traffic near the attractions, the number of visitors at different time periods, the location information of the parking lot, the hotel accommodation around scenic spots, the recent weather conditions, the local special snack and so on. The tourists who have been to scenic spots can share their travel strategies through the tourism software which can provide a great convenience for other tourists. The tourists can upload their travel diaries and travel photos, video on the Internet, which can be used as travel memories, and easy for others to reference.

Therefore, it is necessary to design software with travel guide, information search, destination information push, travel notes sharing and commenting.

DESIGN

Overall Scheme

The tourism software based on iOS platform designed in this paper has two modules, the scenic server and the tourist client. The scenic server mainly services for scenic spots administrators, such as scenic spot management, travelogue management,
comment management, user management and push information management. The
tourist clients chiefly services for tourists, providing tourists with travel tips, travel
notes and information search functions. The specific functional structure of the system
is shown in Figure 3.

![Figure 3. System basic function chart.]

**Attractions Service Side Program**

There are six modules in the scenic server, including the scenic spot management
module, the travel notes management module, the city management module, the
comment management module, the user management module and the push information
module.

The scenic management module can be used by the scenic spots administrators to
upload the map of the attractions, ticket prices, service time and various precautions.
The travel notes management module is convenient for the administrator to save and
classify the travel notes uploaded by tourists. For example, it can classify the travel
notes according whether it has photos, per capita prices, time plan and other
information. The city management module can provide the weather information of the
city and the food and lodging information nearby according to the location information.
The review management module facilitates the management of visitors' comments,
such as high praise and bad reviews. The administrator uses the user management
module to make statistics on the user's preferences through the background information,
so as to facilitate better management of the scenic spots. The push information module
can push the city's famous sights and specialty snacks on the APP home page.

**Travel Client Program**

The travel client has five modules, including the main interface module, the
personal information module, the travel notes module, the search module and the travel
notes module.

The main interface module is the contract point of all modules, using interactive
pages to show popular travel notes and latest travel stories by scrolling pictures. The
personal information module includes login, registration, contents and password
changes. The travel notes module can add or delete personal travel notes, browse other
people's travel notes, and add photo album. All the functions can facilitate users to carry
out personal travel records. Travel notes module can retrieve the scenic spots and tour
guides of the city, showing the tickets, operation time and restaurants around the scenic
spots. Search module can browse the recent weather conditions, accommodation and
traffic conditions, you can also check the location information of the parking lot near the scenic spot.

System Data Flow

In this paper, the software flow chart is shown in Figure 4. When you open the software, it will firstly confirm whether you have registered. If you don't register, you'll register with your cell phone number, your mailbox, micro-blog or QQ. Users can login after registration. The software determines the user's type based on the login account. If you are the scenic spot administrator, you will directly enter the corresponding background management interface of scenic spots. The administrator can update the information of attractions, classify the travel notes and comments through the backstage management. The administrator can provide tourists with information about the city's weather and nearby snacks. If you are the tourism user, you will enter the main interface. The main interface can be used for password modification, content collection, etc. Through the information search module, the tourism user can search the surrounding attractions and can browse other tourists recommend raiders through the itinerary. Travel sharing module can not only upload our own travel notes, but also comment beside other people's travel notes.

Figure 4. System flow chart.  Figure 5. Software home page interface.  Figure 6. Release Travel Interface.

SYSTEM IMPLEMENTATION AND TESTING
System Home Page Display

After the user login the software, they enter the first page of the system. Users can carry out the information selection operation according to their own need. The home page contains a variety of functional categories of software. The interface of the software home page is shown in Figure 5.
Release Travel Show

Users can use the software to upload their own travel notes, including dates, photos and their sentiment. Users can choose from the album photo upload, they can also click "take pictures". They can record their own feelings, it can be a word or an article, the number of words is not limited. The specific operating interface is shown in Figure 6.

Background Management Home Page Display

After the administrator logs in the software, they can enter the background for information management and data processing. The administrator uses the user management module to make statistics on the user's preferences through the background information, so as to facilitate better management of the scenic spots. As shown in Figure 7.

User Management Display

After the administrator enters, they can manage the user’s information of the system. The specific display interface is shown in Figure 8.

Travel Information Display

Administrators can manage travel notes, including add, modify, delete the travel notes. It can realize the overall management of the system data. The specific display interface is shown in Figure 9.
CONCLUSIONS

The tourism software based on iOS platform can be used to search scenic spots, browse the surrounding environment, and share travel notes. Tourism users only need to enter short key words, then they can obtain the required travel notes. They can also comment the travel notes of others. Scenic spot administrators can update scenic spots information and manage uploaded travel notes or travel guides. This software provides a comprehensive platform for users. The current market needs a software which can not only share their travel experiences by recording travel notes, but also obtain the knowledge and strategies provided by other users. This article designed the software just in line with this demand.

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