

Classroom management system based on WeChat small program

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Abstract: Due to the current expansion of college enrollment and the continuous improvement of students' self-study ability, the seats in libraries and study rooms become very scarce, which also makes the phenomenon of seat occupancy in libraries and study rooms more and more serious. Through these phenomena, we found the problem -- college seat resources are not enough or the utilization rate of resources is not high, due to the unreasonable use of resources, "more monks than fewer" phenomenon leads to the occurrence of seat occupancy contradictions. Therefore, to solve this problem, we use the classroom management system based on WeChat mini program to make it more convenient and fast for students and teachers to understand the use of seats in each classroom, check the use of seats in each classroom in advance before going out or the day before, and make location reservation according to the situation, so as to realize the efficient utilization of classroom seat resources in colleges and universities. In order to solve the university seat resources are not enough or resource utilization is not high problem

Keywords: WeChat mini program; WeChat developer tools; Classroom Seating Resources.

1. Introduction

After entering college, students are no longer supervised by teachers like in high school, but rely on students to learn independently. No matter they want to get good grades in specialized courses, or take the certificate or postgraduate entrance exam, they have no teachers to talk about them anymore. They can only rely on their own efforts. The time to study in class is simply not enough, students will choose their spare time to go to the classroom or library to study. The self-study classroom or library seats simply cannot accommodate such a large number of students, so there will be a phenomenon of "seat occupancy". And why do students occupy seats? You need to take in energy, and you can't stay in your position all day. And people worry that because they leave for a short time to eat or do something, the place will be gone, and someone else will use it. Therefore, the behavior of "seat occupying" occurs in university libraries or self-study classrooms where there are personal belongings but people are not there.

Students compete for seats in the front row from time to time, resulting in a variety of uncivilized seats. According to a recent survey of 1,940 college students by the Social Survey Center of China Youth Daily and Wenjuan.com, 81.0 percent of the respondents have occupied seats, and 62.8 percent said others' occupying seats has caused them trouble. Among the surveyed students, undergraduates accounted for 78.9%, master's students accounted for 19.9% and doctoral students accounted for 1.2% . It can be seen that the phenomenon of "occupying seats" is widespread in universities and colleges. Is a question that continues to be addressed today.

2. Design Objectives

WeChat applet can obtain student information through the educational administration system, and then bind student information through WeChat, and exchange user information through location information and WeChat cloud database. Realize the classroom seat information real-time update. According to the classroom information provided by the

system, users can book seats in advance. At the same time, other students can also see the real-time seat change information. Make a reservation or a reservation change. Then according to the positioning information of students, the implementation of the check-in function. If you do not check in within 5 minutes before the scheduled time, the location will be vacated automatically. Cancel the current reservation information of the user. In addition, if the user's location information in use finds that the user is out of the range for more than one hour, the location will be automatically vacated. To realize efficient utilization of public resources. It is convenient for students to find their favorite place quickly. The diagram below is a flow diagram.

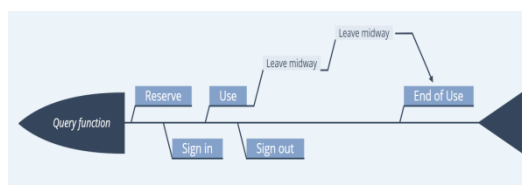


Fig.1 Use Flowchart

3. Functional design

Home page: The main function is to select the teaching buildings, floors and classrooms. With a three-level menu, step by step select a teaching building, a floor, a classroom. After selection, you can see the current reservation and use of all seats, and you can also view the reservation and use of the next day.

Application page: You can reserve or apply for the classroom seat according to the seat information found on the home page. If the seat is not occupied, it will be automatically passed. If a seat has already been requested, the request will be automatically rejected.

Sign in page: It is necessary to open the positioning function in real time and sign in in real time, and the page will prompt that the positioning cannot be closed. If the positioning is closed or left the seat range for more than one hour, the user's current right to use the seat will be cancelled, and the seat will be in the vacant state again.

Personal information page: After authorization through wechat, users need to bind information on this page. Bind the user's college, major, class, student number information. Convenient after the problem management personnel can quickly find the user. It can also realize the information alternations between management personnel and users according to the authorized information of wechat. Here are some core codes:

```

Personal authorization login page
<view class="cate">
  <!-- menu -->
  <scroll-view class="menu" scroll-y>
    <block wx:for="{{groups}}" wx:key="item">
      <view class="btn" {{currentSecName == item?
'hover' : ''}} bindtap="onTap" data-current="{{item}}">
        {{item}}
      </view>
    </block>
  </scroll-view>
  <!-- submenu -->
  <scroll-view class="submenu" scroll-y scroll-
top="{{scrollPosition}}">
    <block wx:for="{{currentSection}}" wx:key="item"
wx:for-item="sec">
      <view class="section">{{index}}</view>
      <view class="itembox">
        <navigator wx:for="{{sec}}" wx:key="item"
class="detail" url="/pages/list/list?kw={{index}}">
          <image
class="thumbnail"
src="{{item}}"></image>
          <view class="name">{{index}}</view>
        </navigator>
      </view>
    </block>
  </scroll-view>
</view>

```

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Borrowing need to know page:
<swiper indicator-dots="{{true}}"
autoplay="{{true}}" class="swiper1" >
  <block wx:for="{{image}}">
    <swiper-item>
      <image src="{{item}}" class="slide-image"/>
    </swiper-item>
  </block>
</swiper>
<view class="title">
<text >
  Borrowing need to know
</text></view>
<text>

```

- 1). Personal real information must be improved.
- 2). This applet is only available to students of Quzhou University for the time being. You can query the empty classrooms in the teaching building this semester.
- 3). Select a specific building name or time and click View to query the relevant empty classrooms.
- 4). If there is any damage to the equipment or teaching aids, please make a timely warranty.
- 5). The data source of this applet is the official website of the educational administration system. We should pay attention to the wrong results that may be caused by temporary classroom changes, make-up classes, and other reasons. Please forgive us!

4. Implementation and application of classroom management system based on WeChat mini program

The system adopts B/S architecture, and the data is stored in the WeChat cloud platform, which makes the transmission and use faster and faster, and also ensures the security of data. The use of WXML, WXSS, JavaScript, WeChat cloud and other development technologies, including WeChat small program user front-end and web server management back-end two parts, the user platform use experience is convenient and flexible. The following figure is part of the small program function page display



Fig.2 Classroom seat query page



Fig.3 Sign in page

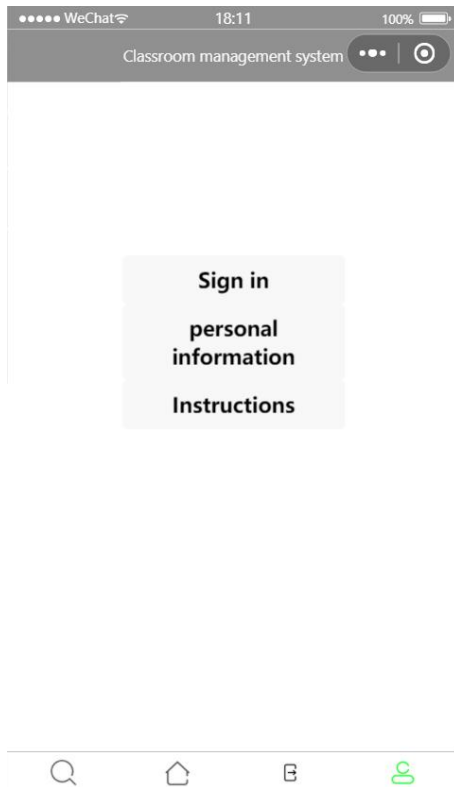


Fig.4 Personal information page

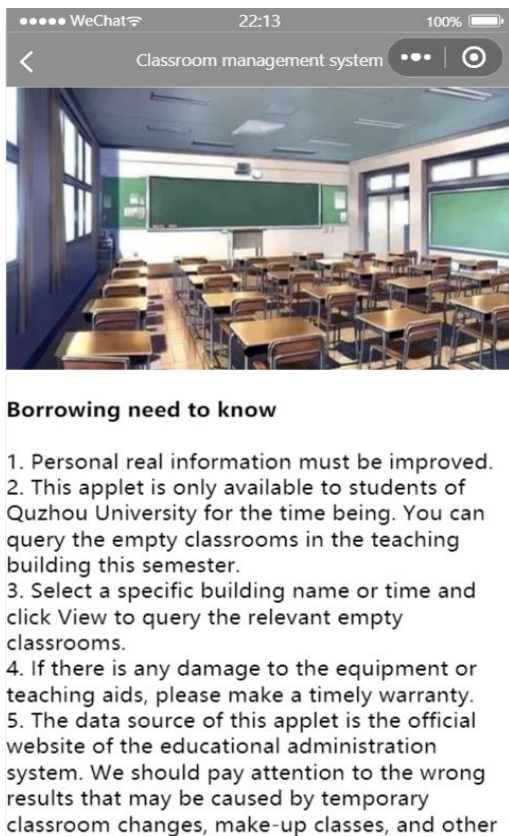


Fig.5 Use the Need to Know page

According to the analysis and design of the appeal, the management and intelligent use of classroom seat resources are realized based on WeChat small program. From the test, the system function is simple and light. Solve the problem that the user's operation is difficult and the master is difficult. Give full play to the advantages of the Internet, high precision maps, micro services of the new generation of technology. It further solved the problem of students' study location and strangled many conflicts in the cradle. And then to ensure that the students study life fast.

5. Conclusion

The students can check the location in real time through the small program of mobile phone WeChat and book the location to check in, effectively avoiding the waste of public resources. Also, successfully solved the problem of students looking for a place in the classroom before study. Greatly solved the students' learning contradictions. And through the function of information interaction, the reservation conflict and other contradictions are avoided. It provides effective help for efficient students' study.

Acknowledgment

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