**Introduction**

**Development background**

The university library provides a large number of book resources for students and teachers, which is an important space for learning and exchanging ideas. Therefore, it is very necessary to establish an efficient and reliable library information management system. At the same time, human society is experiencing a new round of technological and industrial revolutions led by artificial intelligence, big data, and other technologies. At present, these emerging technologies are not fully applied in the field of library management. Based on the concept of Smart +, we believe that the library management system should provide more convenient and efficient information and knowledge services for schools and society by transforming it into intelligent systems. Through software engineering and big data technologies, we plan to develop an intelligent university library management system.

**Functions of the System**

* The system can realize the management of book resources and support the classification, cataloging, labeling, indexing, input, modification, deletion, and other functions of the collection of books.
* The system can manage the borrowing information and support readers' borrowing, returning, renewing, and other businesses.
* The system supports the management of reader information and the operation of user account registration, login, and password modification. In addition, readers can be divided into teachers, students, and the public for separate management, providing different permissions for different types of readers.
* The system supports a variety of terminals, enabling users to handle services online through various terminals.
* The system supports the management of venue resources and users' reservations of venues.
* The system supports the reader communication function, which can analyze readers' reading preferences according to their borrowing records, and help readers find other readers with the same interests to communicate according to their reading preferences.

**Target users**

* Students: Students of the university can inquire, borrow and renew books on the system, and deal with violations. They can make reservations for seats. They can log on to the forum to express views and communicate with people who have similar reading interests.
* Teachers: similar to the authority of students in the university. But the authority to query and borrow books and periodicals is higher.
* Public users: Public users can search books on the system. They can read books and periodicals in the reading room but can not take books and periodicals out of the library. Can reserve the library reading room seats.
* Librarian: Manage all the library books borrowing and returning through this system. Check out the information and borrowing status of the books. Manage the borrowing rights of various users.
* Administrator: Review forum posts in the system and deal with illegal users.

**Originalities of the System**

* Forum functions and readership. In the future, the system will improve the forum function, and establish their own readership circle for different reader groups. In the forum, users can have academic exchanges but also can put forward corresponding suggestions and opinions for the improvement of the library management system. In the reader circle, readers with the same reading hobby can make friends and exchange their reading insights.
* The application of big data. Big data technology is used to collect users' daily bibliographic journal query, action location track, reading period, and other information, so as to understand the knowledge needs and reading habits of each user. In order, according to these analysis results, the system can timely complete and update the books and periodicals that are the most concerned by user groups and that has been the most frequently retrieved and borrowed, and push the latest knowledge information in each professional field required by users according to the personalized needs of users.

创新点

② 大数据的应用。利用大数据技术采集用户日常的书目期刊查询、行动位置轨迹、阅读时段等方面的信息，从而了解每位用户的知识需求和阅读习惯。以便于系统根据这些分析结果及时补全和更新最受用户群体关注的、被检索和借阅最频繁的书刊资料，并根据用户的个性化需求推送用户所需得各专业领域的最新知识信息。

③ 论坛功能和读者圈。在未来系统将完善论坛功能，并为不同的读者群体建立属于他们的读者圈。在论坛中，用户们可以进行学术交流，也可以为图书馆管理系统的完善提出相应的建议和意见。在读者圈中，拥有相同阅读爱好的读者们可以交朋友和交流彼此的阅读感悟。

innovation point

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