designed to provide a high-performance, user-friendly laboratory management experience.

2. System architecture This system is developed using front-end and back-end separation, and the front-end interacts with the back-end through HTTP. The backend is based on MVC architecture to improve code maintainability and scalability. The database uses MySQL to ensure stability and scalability and meet the data storage needs of the laboratory management system.

3. System functions This system mainly includes the following functional modules: laboratory information management, laboratory safety management, equipment (assets) management, experimental teaching management, scientific research project management, and user rights management.

References

1. Spring Boot [Electronic resource]. – Access mode: https://spring.io/projects/spring-boot. – Access date: 08.05.2024.
2. React 中文网 [Electronic Resources]. – Access mode: https://react.nodejs.cn/ – Access date: 08.05.2024.

UDC 004.415

## DEVELOPMENT OF THE TICKET SELLING MANAGEMENT SYSTEM

***Tan Xiaobo, master's degree student, Kornienko A., Doctor of Sciences in Physics and Mathematics, professor, Kazakou V., PhD in Engineering, associate professor***

*Vitebsk State Technological University,*
*Vitebsk, Republic of Belarus*

This project designs an online electronic ticket management system, aiming to build an efficient, safe, and user-friendly system.

In order to realize the system functions, Spring Boot [1], Vue [2], QRCODE and APP [3] are used. The back-end uses the Spring Boot framework and the front-end uses the Vue.js framework for development. After the user successfully purchases the ticket, the system generates a unique QR code as an electronic ticket. The system also provides a mobile application based on Uniapp.

System functions include:

- user management, responsible for user registration, login, membership management, personal information management and other functions;
- ticket management, responsible for the entry, query, verification and deletion of ticket information;
- event management, responsible for the arrangement, query, release and cancellation of events;
- Data Analysis, responsible for collecting and analyzing system data to provide support for decision-making.

Customer service and feedback, responsible for customer inquiries, complaints or providing opinions, suggestions and feedback channels.

With the continuous development of mobile Internet technology and the constant change of user needs, the functional modules can be customized and adjusted according to the actual specific needs and scale. Applicable to all kinds of sports halls (including skating rink, football, basketball, etc.) management system.

References

1. Spring Boot [Electronic resource]. – Access mode: https://spring.io/projects/spring-boot. – Access date: 10.04.2024.
2. Vue.js – The Progressive JavaScript Framework [Electronic resource]. – Access mode: https://vuejs.org/. – Access date: 13.04.2024.
3. DCloud [Electronic resource]. – Access mode: https://dcloud.io/. – Access date: 13.04.2024.