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## **DEVELOPMENT OF SOFTWARE INTERFACE FOR MANAGING EMPLOYEES OF THE CORPORATE SYSTEM**

Рассмотрены вопросы разработки программного интерфейса для управления сотрудниками корпоративной системы.

Each enterprise has its own platform for automating collaboration between employees. All of them are somewhat different from each other, but in general they have similar functionality and are intended for one thing – the organization of interaction between employees. Taking this into account, it was decided to develop a universal, easily scalable system that can be integrated into each enterprise and it will be able to interact with the system already existing there.

Considering the requirements for scalability, it was decided to develop the project using a microservice architecture. This was done using C# .NET Core 3.0. For system reliability and in accordance with the principles of building a microservice architecture, each microservice has its own "Role" and its own database under the control of the PostgreSQL relational DBMS. Therefore, each microservice works with data that corresponds to its "Role", so that updating the functionality on any microservice will not make the entire server inaccessible, but only the part that is being updated. The HTTP protocol and the JSON data format are used to transfer data between microservices. The secure HTTPS protocol and JSON data format are used to transfer data to the client. Only one microservice will use the HTTPS protocol – the so-called "Gateway", the rest of the microservices are not available to the external network. Initially, the system will have a set of microservices representing the basic functionality: a microservice for managing users and their rights, a microservice for managing employee data, a microservice for managing events, a microservice for collecting logs about the operation of all microservices, a microservice for authorization and the so-called "Gateway". Authorization is carried out when you first enter the application by choosing a domain and entering a username and password. To test the entire system, Unit tests were developed for all microservices on the service, which fully cover all the functionality. Postman is used to create integration tests.

As a result, a flexible, easily expandable and fault-tolerant system for managing employees in a corporate environment was developed, which was successfully implemented in the enterprise and tested.