

Exam Seat Allocation Application

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Our project focuses on the development of a software solution for automatic exam seat allocation. The main goal of the application is to increase the reliability and efficiency of the exam organization process. At present, in some educational institutions this process is still carried out manually, which requires significant time and administrative effort and increases the risk of human errors.

The key challenge of the project is to create an application that allocates exam seats to students by considering subjects, exam variants, and the capacity of examination halls, while also preventing issues such as overlapping exam schedules.

To solve this task, we plan to develop an application based on a multi-layered architecture connected to a relational database. The system will include a rule-based seat allocation algorithm that distributes students in a way that minimizes placing students with the same subject or identical exam variants next to each other.

After successful implementation and deployment, the application is expected to simplify exam management in educational institutions, significantly reduce the need for administrative resources, and minimize the probability of manual errors. This will allow institutions to conduct exams in a more organized and efficient manner.

References:

- 1) <https://docs.oracle.com/javase/tutorial/jdbc/basics/index.html>
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- 4) <https://www.geeksforgeeks.org/artificial-intelligence/constraint-satisfaction-problems-csp-in-artificial-intelligence/>