



Legal Library Database Expansion

Case Study

Overview

Industry: Technology

Location: Bucharest, Romania

Output: Digitizing Data

Date: 2023



About OPTI

✓ Over 15 years of excellence

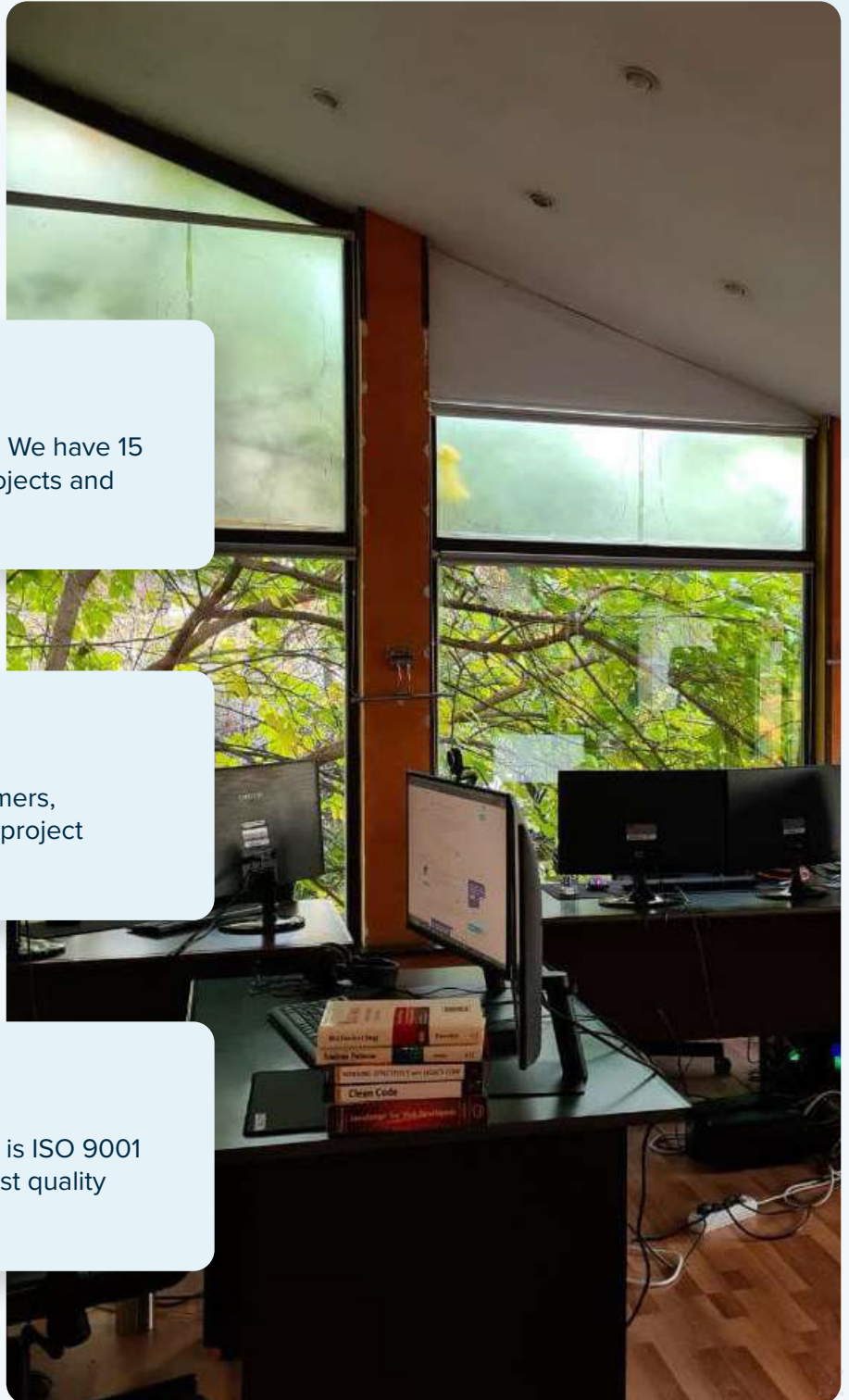
OPTI Systems was founded in 2005. We have 15 years of experience, hundreds of projects and satisfied clients.

✓ Team of specialists

Our team include analysts, programmers, database and server administrators, project managers and QA engineers.

✓ Based in Bucharest, Romania

Romania is a renowned IT hub. OPTI is ISO 9001 certified and competes for the highest quality standards.



We do software focused on



Digital Transformation



Medical



Educational



Gaming



Challenge

With an integrated library for professionals, Bucharest Bar approached us with a new technological challenge. The existing system, which managed book loans at their library among other functions and was built on a PHP5 backend, needed to be updated in order to satisfy the particular needs of the logic involved in the book loaning process. Enhancing the overall technical performance of the system and adding cutting-edge features that would provide users greater control over books that were rented out were the main objectives.



Solution

As a result, we initiated a significant update project that included complex database modifications and the addition of new functionalities to assist users in the platform.

Our process

We worked on expanding the current database structure to include the special characteristics of a library. We implemented new dedicated tables to precisely record dynamic modifications linked to every book loan, offering an effective method of monitoring loan-related operations. The ability of the system to effectively maintain and query loan-specific data was greatly improved by the addition of a 'loaned' label for every book in the database.

- ✓ Expanded current database structure for library-specific features
- ✓ Implemented dedicated database for precise recording of dynamic modifications in book loans
- ✓ Introduced fine-grained monitoring of loan-related operations
- ✓ Improved system's efficiency in maintaining and querying loan-specific data
- ✓ Added 'loaned' label for every book in the database that has been loaned to enhance tracking and querying capabilities



Results

Dynamic book addition to loans

Users have the flexibility to increase the number of books they can dynamically add to an existing loan

Real-time status update

Implemented a real-time update mechanism for the status of individual books within a loan.

Deletion of loans and books from a loan

Gave users the option to remove specific books from a loan or entire loans

Return Management

Assistance with both full and partial returns; the system's return management capabilities are improved by having the option to mark specific books or the entire loan as returned

Refund time extensions

Users have the ability to dynamically extend the loan's refund period

User Interface Tweaks

The user interface was redesigned to seamlessly integrate new buttons and features.



Labels

For each book in the database that has been loaned will be added the 'loaned' label automatically; improved tracking and querying capabilities for loan-related activities

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