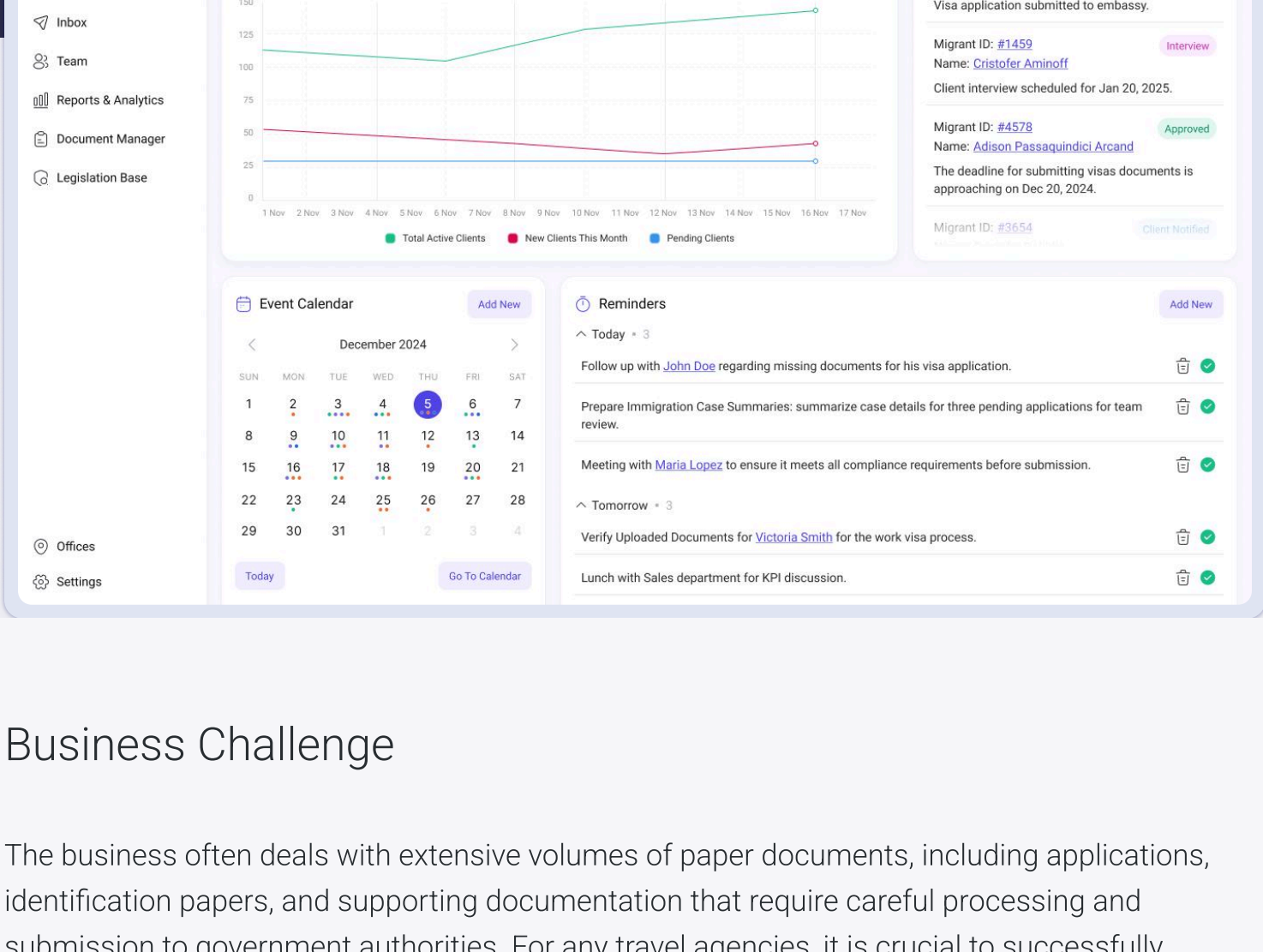


## CRM for Immigration Consultants

Complex CRM for streamlined migration services of a travel agency, developed to manage interactions with migrants and documents seamlessly. The system optimizes routine business processes, reduces the workload on employees, and ensures data security.



## Business Challenge

The business often deals with extensive volumes of paper documents, including applications, identification papers, and supporting documentation that require careful processing and submission to government authorities. For any travel agencies, it is crucial to successfully manage the migration process for individuals seeking to live, work, or study in different countries. Each visa application or work permit request demands precise verification and quick processing, as any error can lead to loss of time and money. With today's technologies, the traditional reliance on manual processes and Excel Spreadsheets became inefficient and prone to errors, leading to delays in processing times and potential non-compliance with data protection laws.

A client from a visa and immigration agency was facing significant challenges due to the use of an ineffective migrant data management system. The reliance of the entire business on Microsoft Excel for tracking and record keeping led to inefficiencies through manual data entry and management, which was prone to human error and resulted in inaccurate records. Previously, the agency had hired a vendor to develop a custom application, but it resulted in a system that was not user-friendly and ultimately unusable. As the volume of applications grew, the existing system struggled to keep up with demand, resulting in **longer processing times and frustrated applicants**.

Eventually, the agency was in need of a robust **customer relationship management (CRM) system** tailored to the specific needs:

- **Streamlined Data Processing.** Automate the intake and management of large volumes of paper records to reduce errors and processing time as well as improve the storage and management of uploaded documents tied to the specific service;
- **Historical Tracking.** Incorporate the tracking the history of each application and better control over it, including status updates, document submissions, and their expiration dates;
- **Enhanced Data Security.** Integrate strong security measures with two-factor authentication (to protect sensitive migrant data) and data encryption for precise compliance with relevant data protection laws;
- **Improved User Experience.** Implement a user-friendly interface that allows staff to easily navigate the system and efficiently manage visa and immigrant applications, including the ability to export data in required formats.

## Solution

At first glance, administrative tasks may appear straightforward: gather documents and submit them to the relevant agencies. However, for a company handling over 500 applications each month, with each migrant service type demanding unique documentation, the system needed to be robust. With an anticipated annual client growth of approximately 25%, the requirements become even more critical.

To begin with, our business analysts undertook a preliminary analysis to identify and gather the essential requirements for an effective CRM immigration application that will fulfill customer's needs. Here's what have been decided together with the client regarding system's functionality:

- ✓ **Registration and Login System** with incorporate two-factor authentication for user account protection.
- ✓ **Reliable Data Encryption** will ensure that even in the event of a leak, the data remains inaccessible.
- ✓ **Centralized Storage and Document Management** will help to store all immigrants data, track document status, control their expiration dates, and record every document, from visa applications to bank documents.
- ✓ **Data Export** in required formats will simplify the overall process.
- ✓ **Scheduling and Task Management** will grant the ability to book and manage appointments with immigrants and send them notifications, set reminders for follow-up tasks, and assign tasks to team members.
- ✓ **Reporting and Analytics** will provide an overview of business performance with specific KPIs.

### Document Management

Dealing with all the documents, forms, and applications from both immigrants and emigrants requires a centralized document repository to ensure easy access and retrieval. That is why, together with the client, it was decided to implement **DHTMLX File Manager**. The component brought better document flow and data storage of the immigrants information, visa applications, supporting documents, and correspondence history. Besides that, it provided the CRM system with the following:

- **Enhanced Document Management.** Employees are now able to keep track of different versions of documents to (intake documents, visa documentation, work permits, employment documentation, government correspondences, migrants emails, etc.) avoid confusion and ensure that the latest versions are always accessible. Also, by having folder structure, it became easier to organize documents into folders based on customer names, application types, or stages of the visa process.
- **Automated Workflows.** Repetitive tasks, such as sending reminders for document submissions, visa appointments, and follow-ups, have been automated, which added more smoothness to the agency processes. To reduce manual intervention and speed up the process, automated approval workflows for document reviews and visa application processing were implemented. Besides that, it became a lot easier to upload documents related to each individual case, upload and download CSV files, make checklists of mandatory documents, and use templates.

The integration of DHTMLX File Manager into the CRM system for immigrant consultants ensured that all interactions and documents were synchronized, which brought a holistic view of each client's case. Thus, the component helped agency employees to make possible the main simple operations, such as collect, allocate, and process user data per needed criteria, rather than struggling with the operation processed via Microsoft Excel.

### Calendar

Initially the system's calendar should have displayed planned activities. Eventually, its functionality expanded into a combination of activities and data related to participants, including completeness of user profiles, data about activities location, etc. In order to cover all these requirements, it was decided to integrate **DHTMLX Scheduler**. This component granted a set of useful features for our client:

- **Centralized Scheduling.** Having a centralized calendar for all visa appointments, meetings, and important deadlines ensured that all team members are aware of key dates and can plan accordingly. Different calendar views (day, week, month) provided a comprehensive overview of schedules and deadlines. And, automated reminders and notifications for upcoming appointments, document submission deadlines, and visa expiry dates became good assistance for agency employees to help them and applicants to miss nothing.
- **Color Coding for Events.** To easily distinguish various types of scheduled events, specific colors were used. For example, travel agency employees are now able to assign a different color for calls with migrants to easily differentiate them from meetings and other events.
- **User-Friendly Filters.** Considering the volumes of data, it was decided to implement filters to allow employees to view the information only related to their tasks and/or view the information related to their responsibilities and other relevant employees in the organization.

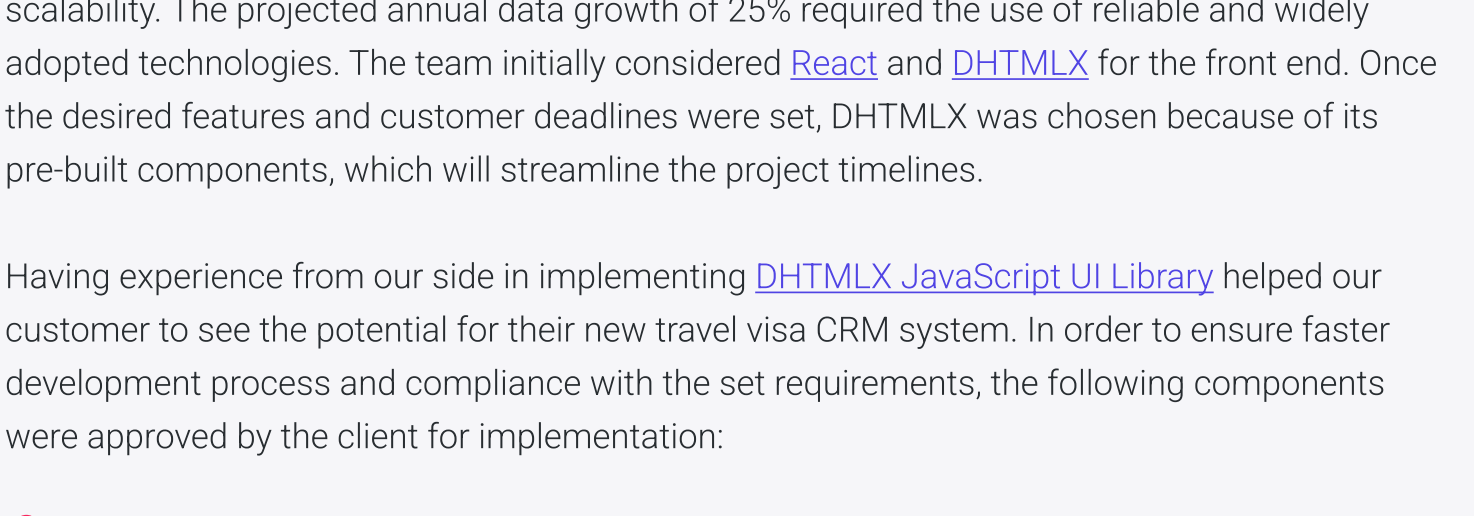
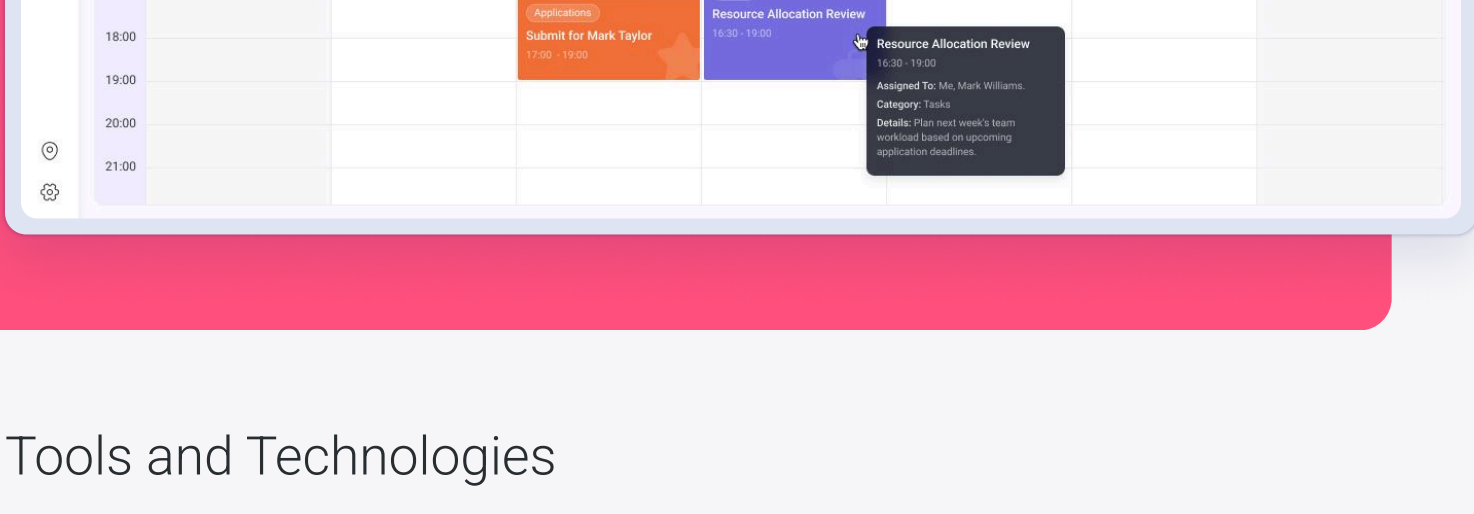
### Other Features

To ensure flawless user experience with the new visa management system, we also integrated the following features:

**Role-Based Access Control.** It ensured that only authorized personnel have access to sensitive immigrant information and documents. The system admin was able to set permissions based on roles to maintain data security as well as maintain audit logs to track who accessed or modified documents, enhancing accountability and security.

**User-Friendly Interface.** Simplifying document uploads and organization with an intuitive drag-and-drop functionality added a nice touch to the overall user experience. Moreover, allowing employees to preview and edit documents directly within the File Manager reduced the need to switch between different applications.

**Reporting and Analytics.** Generating reports on document status, such as pending approvals, missing documents, and upcoming expirations, was not less important for the visa agency. The employees preferred to track key performance indicators (KPIs) related to document processing times and workflow efficiency that improved business processes.



## Tools and Technologies

When selecting the technology stack, we focused on ensuring high performance and scalability. The projected annual data growth of 25% required the use of reliable and widely adopted technologies. The team initially considered **React** and **DHTMLX** for the front end. Once the desired features and customer deadlines were set, DHTMLX was chosen because of its pre-built components, which will streamline the project timeline.

Having experience from our side in implementing **DHTMLX JavaScript UI Library** helped our customer to see the potential for their new travel visa CRM system. In order to ensure faster development process and compliance with the set requirements, the following components were approved by the client for implementation:

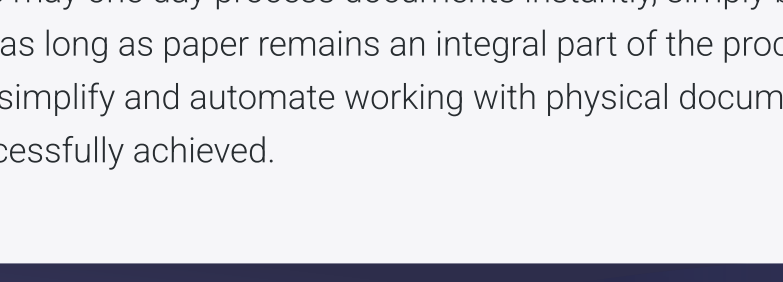
- File manager;
- Scheduler;
- [Charts](#);
- [Data grid](#);
- [Tree](#), etc.

Thus, **DHTMLX** was chosen for the front-end, while **NodeJS** handled the back-end, with server infrastructure hosted on AWS. This setup allowed us to create a four-tier infrastructure for production, staging, development, and a separate instance for the database.

### Project in Figures

**18+** Months Duration  
**9000+** Estimated man-hours

### Applied Technologies



## Result

Our client received a system that included only the necessary functions, allowed for the quick integration of new features, which ensured secure data storage, facilitated the fast reuse of existing data, and enabled the efficient management of a large volume of documents. Overall, the CRM system has not only met but exceeded the client's expectations, paving the way for future enhancements and innovations in the visa processing industry:

- ✓ **Intuitive interface and robust functionality** significantly reduced the time and effort required for document handling;
- ✓ **Automated workflows and real-time data synchronization** have streamlined operations, allowing staff to focus more on customer interactions and less on administrative tasks.

Much like modern doctors can extract vast amounts of information from a single drop of blood, visa companies may one day process documents instantly, simply by using an immigrant's fingerprint. But as long as paper remains an integral part of the process, the goal of this CRM system was to simplify and automate working with physical documents as much as possible, which was successfully achieved.

**Your questions and requests are always welcome!**