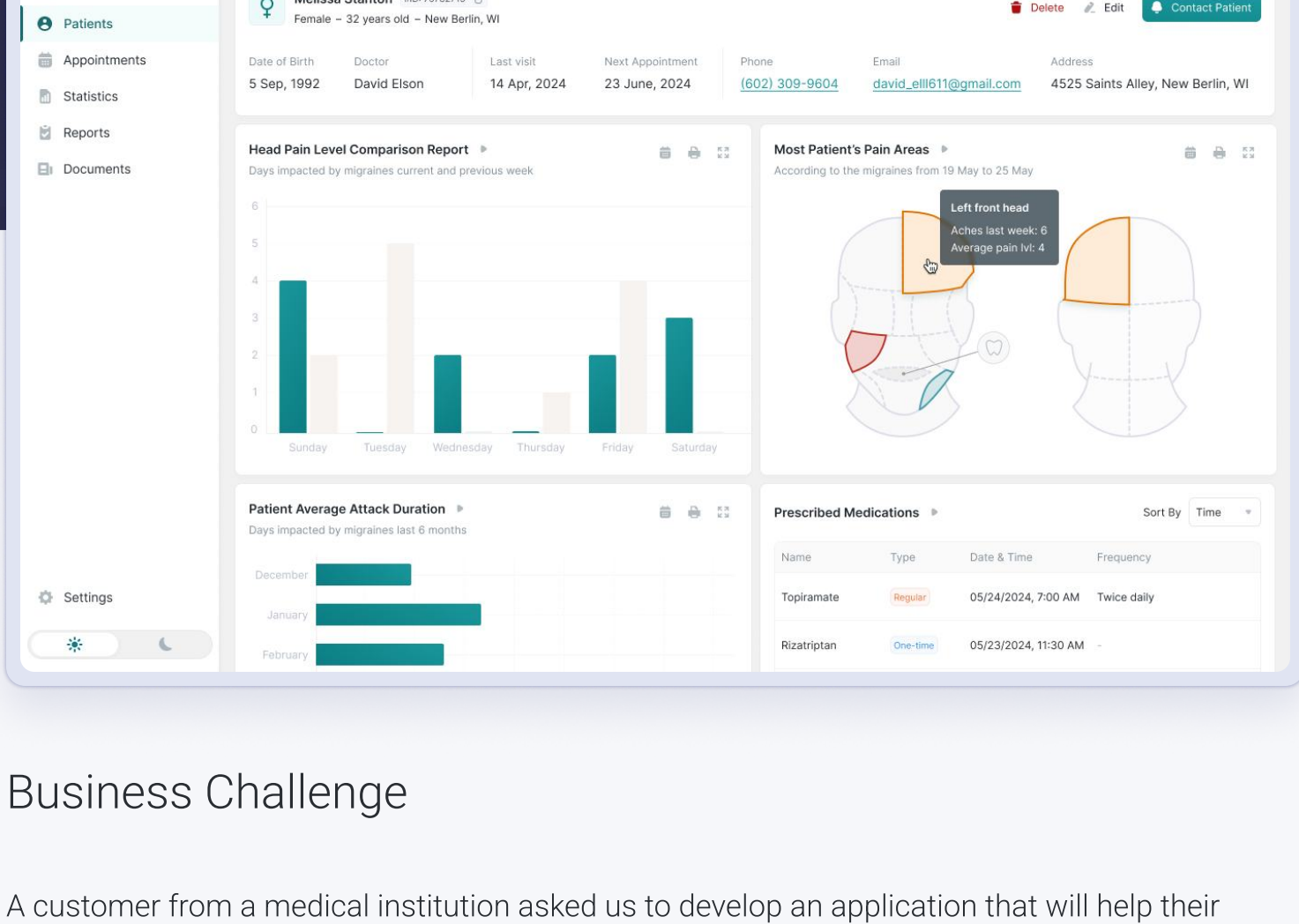


## Migraine Tracking Tool for Patient Management Software

A patient management system with a migraine tracking tool for doctors to check and analyze patients' health condition that they reported in the migraine tracking mobile application. Provides better control over patients' health and medication process.



### Business Challenge

A customer from a medical institution asked us to develop an application that will help their employees to better control patients' health conditions, especially migraines and symptoms that go alongside. Also, it was necessary to provide patients with the possibility to record their symptoms for further analysis, which meant that there should be two versions of the app (web system for doctors and mobile app for patients) connected together.

All in all, our customer wanted to improve statistics and investigations in migraine discovery for their employees to make better decisions and empower individuals suffering from migraines to take control of their health.

After the detailed conversation with our client, we defined the following list of key goals:

- ✓ Provide a platform for doctors and a platform for their patients to let them track and share records about their health condition;
- ✓ Provide easy and automated tools for analytics and reports;
- ✓ Create a platform for doctors to share or consult with colleagues about possible decisions.

### Solution

The decision to develop two modules, a web system for doctors and a mobile app for patients, is where we met the middle ground with the client. It's vital to let patients log the intensity of each migraine episode, record triggers (sleep deprivation or irregular sleep schedule, caffeine and alcohol, stress, changes in the weather, dehydration, etc.) and associated symptoms (aura, nausea, light sensitivity, etc.) for a detailed symptom history, and track medication usage.

As for the doctors, they should be able to review and analyze all the details reported by a patient. They also should be able to generate detailed reports of patient's migraine patterns and treatment efficacy over time in order to provide valuable insights into their condition. Both doctors and patients are able to receive reminders and notifications in order to stay on the right track.

Eventually, this is how we decided to fulfill the customer's and users' needs.

#### Doctor's Module

Our customer wanted to have a patient management software for physicians that will help to gather data on different neurological disorders, including migraines and headaches in order to provide them with timely patient care. The major focus of this module is to provide medical specialists with comprehensive insights into patients' health conditions, including migraine and headache patterns, symptoms, triggers, etc.

**Monitoring migraines** can significantly contribute to advancements in the research and treatment of neurological disorders, because the data provided by patients is not only valuable for the better decisions about their treatment but also for other patients with other health conditions that come along with headaches or migraines.

Therefore, we added **detailed dashboards with statistics** recorded by patients that show pain level comparison reports, pain areas, attack duration, and prescribed medicine. This helps doctors in developing more targeted and personalized treatment methods or change them when needed. A doctor is able to analyze the data in order to decide further actions. They can share reports with the doctors from other medical departments if a patient has other mental or physical issues (such as depression, anxiety disorder, bipolar disorder, chronic sleep deprivation, substance-related disorder, epilepsy, etc.) in order to choose the right course of treatment. If necessary, a doctor is also able to **contact a patient** directly from the software and share their decision.

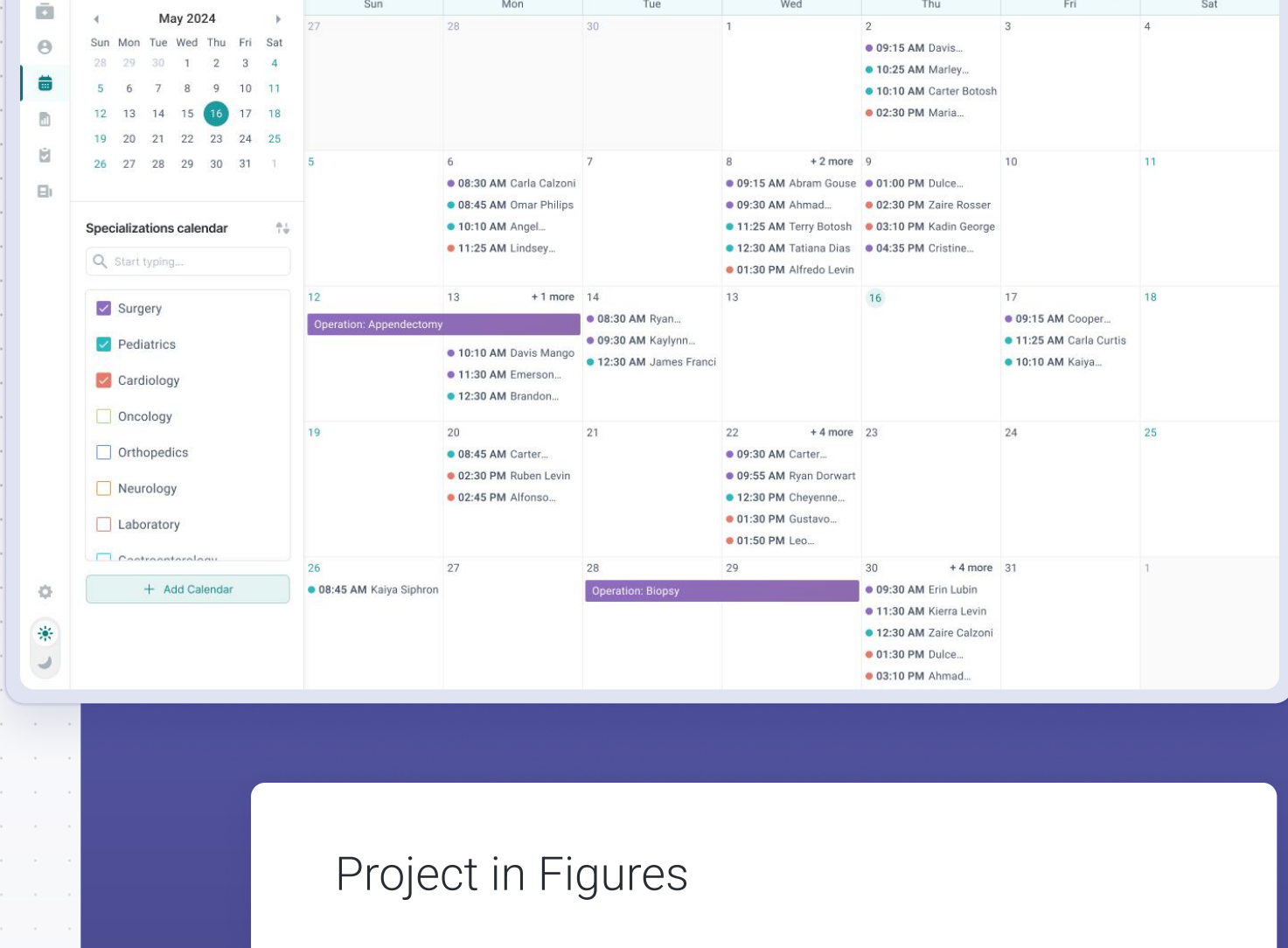
To have better control over **patients' appointments**, we also added the scheduling feature with a calendar where a doctor can see available slots and book an appointment with a patient for a further investigation of their symptoms. A client also asked us to have an environment for doctors to generate reports on their patients' health condition and to be able to adjust plans accordingly, that is why we added the **reporting feature**. Besides that, users with Doctor permissions are able to edit patients' info and reports and also share and save information inside the app for **quick access on different devices**

#### Patient's Module

When developing a mobile version of the app for patients, it was vital to take into account all specifics of migraines and headaches and the symptoms patients may have alongside. For example, migraines are frequently associated with photosensitivity, therefore it was decided to choose a **dark theme** for the interface. This way, it is possible to minimize light exposure and reduce discomfort for users with photosensitivity.

Such a type of an application should have the functionality that **allows patients to record** the changes in their condition. That is why it was vital for us to add the ability to enter all the data about the attack (duration, pain localization, pain level). We also decided to improve the "New Attack flow" with more details for each point and give patients an opportunity to give an **informative report**. Thus, they are able to choose particular pain zones or multizones, define pain intensity for each zone chosen in the report, as well as to register symptoms associated with their migraine attack, triggers, and the medication they took (if there was any). All in all, patients give as many details as possible in a simple yet informative way.

Patients are able to see how many days they were attack-free, check the **calendar** or **medication log** to understand their condition better, see if there are any changes, and share their concerns with the doctor when necessary.



### Project in Figures

8+

Month Duration

1350+

Estimated man-hours

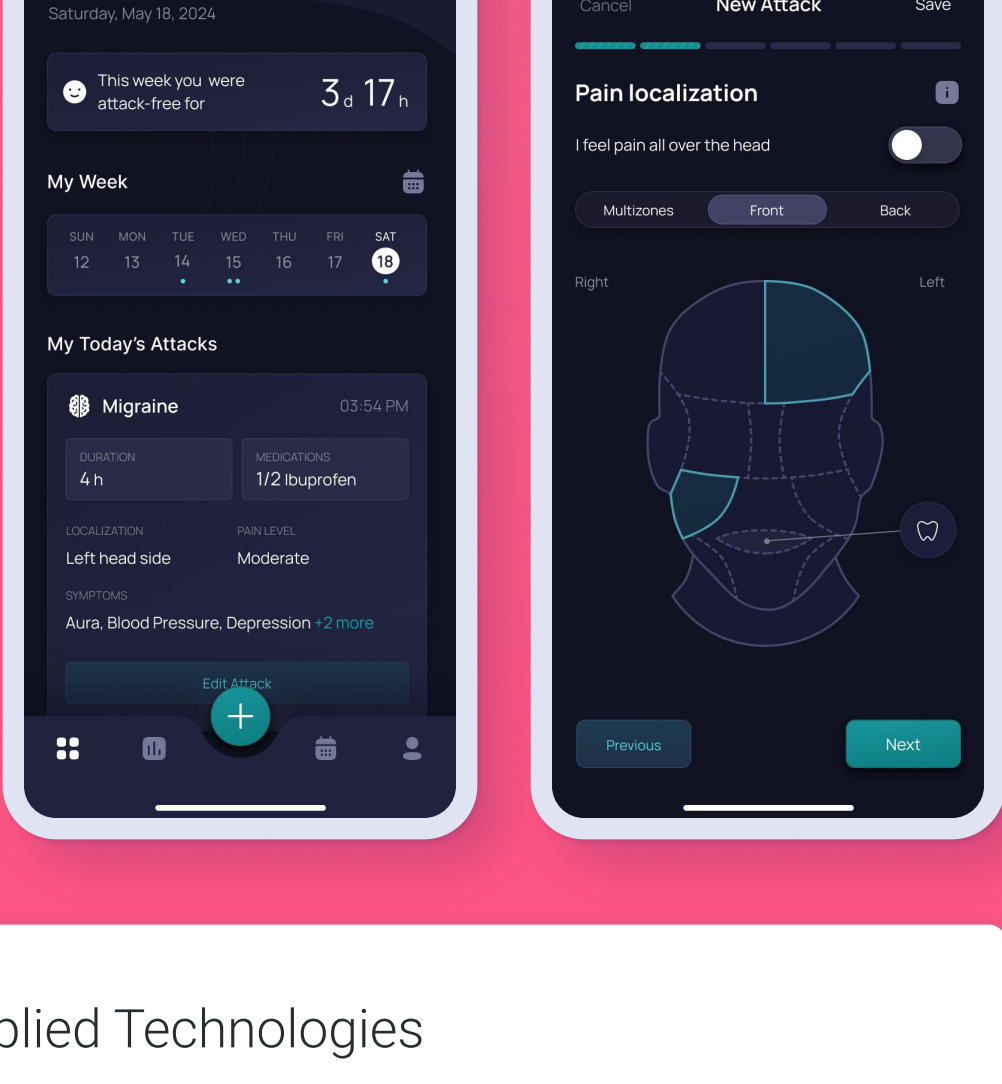
### Implemented Components

To provide the best experience and make an intuitive and user-friendly UI/UX that helps the users of the future system fulfill their needs, we decided to integrate our ready-made [Webix JavaScript widgets](#).

Thus, to let a system administrator manage user permissions, we added [Webix User Manager](#). Doctors are also able to use it in order to see the list of other medical specialists, check their availability, and share reports with them.

To enhance and automate the booking and scheduling of appointments, our developers included [Webix Scheduler](#). With its help, doctors have a better control over their working schedule and add new appointments or edit them easily.

[Webix Report Manager](#) was also a great addition to the system as it helped our client to ensure better treatment decisions for the patients and improve the overall workflow of the doctors.



### Applied Technologies

### Results

The idea of creating a patient management software with a migraine tracking tool turned out to be a perfect solution for the detailed investigation of migraines and headaches and their impact on patients' health. It became much easier for our client's employees to offer personalized treatment and analyze patients' conditions for future improvements in the healthcare system.

Such an app can be as a standalone solution or can be a part of a complex [healthcare system](#) that we are able to customize according to your goals and requirements. If you need something similar or want to enhance the processes in your medical institutions in any other way, contact us via the form below.

Your questions and requests are always welcome!