SUMATOSOFT

Company profile 2024

We help companies to apply the best IT innovations to gain competitive benefits, improve their business efficiency, quality of services and products.

🔗 sumatosoft.com

✉ info@sumatosoft.com

One Boston Place, Suite 2602 Boston, MA 02108, United States

Table of contents

SUMATOSOFT

Our services

With a deep understanding of modern technologies and strong expertise in business domains, based on properly set and transparent processes we implement comprehensive projects and deliver high-end web, mobile, IoT, and SaaS solutions. SumatoSoft stands out in the background of its competitors since it has managed to become a technological partner for its clients. The partner, who delves into a client's business challenges, needs, and pain points and provides upscale software solutions that fully meet those needs and all requirements.

Expertise in business domains

AdTech & Marketing	FinTech	Logistics	Healthcare	Media & Entertainment

eCommerce & Retail	EdTech	Automotive	Real Estate	Travel & Hospitality

Solutions we build

IoT development	Enterprise software	SaaS products	MVPs for startups	Mobile apps

3

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Technologies we use

Languages

Ruby
Python
Node.js
Elixir
JavaScript
TypeScript

Frameworks

Ruby on Rails
Grape
Express.js
Gatsby

Databases

MySQL
PostgreSQL
MongoDB
MSSQL
AWS DynamoDB
AWS RDS
AWS S3

Client side

ReactJS
Vue.js
Bootstrap
Custom JavaScript

BI & Analytics

Tableau
Power BI
JasperReports
JasperServer
Firebase Crashlytics
Google Analytics
BIRT
Pentaho
Talend
Graphite

Mobile

Swift (iOS)
Kotlin (Android)
React Native

Internet of Things

AWS IoT Core
Azure IoT Hub
Google Cloud Platform
Apache Kafka
Apache Hadoop
Amazon DynamoDB
Amazon S3
Azure Cosmos DB

Artificial Intelligence

OpenAI API
GPTs
Tesseract OCR

CI/CD

Gitlab CI/CD
Heroku CI/CD
Jenkins
GitHub Actions
Docker/DockerCI
Kubernetes

* The text covers only a portion of the available technologies, but the full list is more extensive and includes additional items.

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Full cycle development services

Business analysis
We analyze business needs and offer the best solution for our Clients.

UX/UI development
We create seamless and efficient user flows.

Development
We hire only highly experienced IT professionals.

Testing and QA
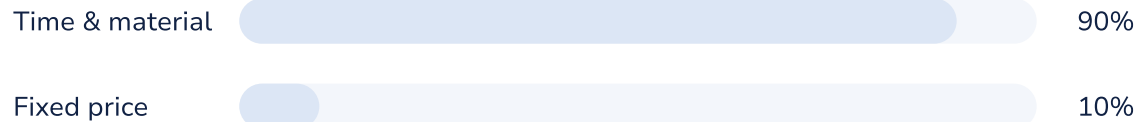Our goal is to make our products work without fails.

Deployment
We assist companies in deployment, scaling and maintenance of applications.

Data management
We help to manage all the business data in the system the right way.

Engagement models

Time & material	90%
Fixed price	10%
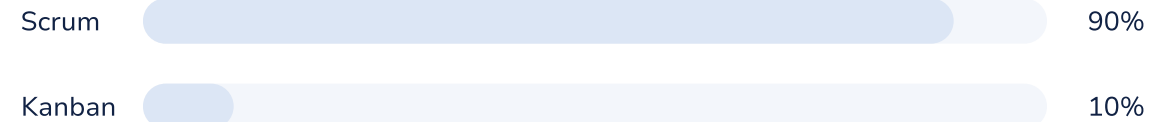
Our clients are always active participants in the project development lifecycle, controlling the progress and having an opportunity to introduce changes at any time. As a result, we guarantee high quality of the final product and our services by supporting transparency of the working process.

Methodologies

Scrum	90%
Kanban	10%

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Awards & recognitions

Key offerings

✓ Becoming a reliable technical partner

✓ Focus on the business value delivery

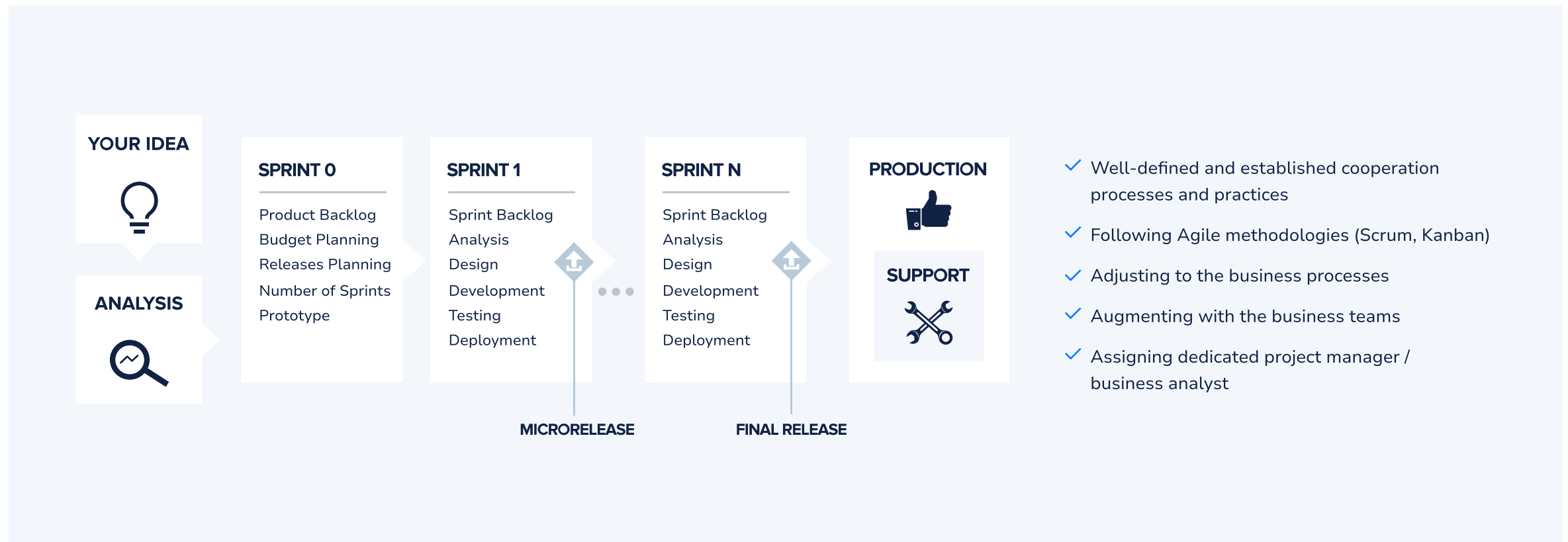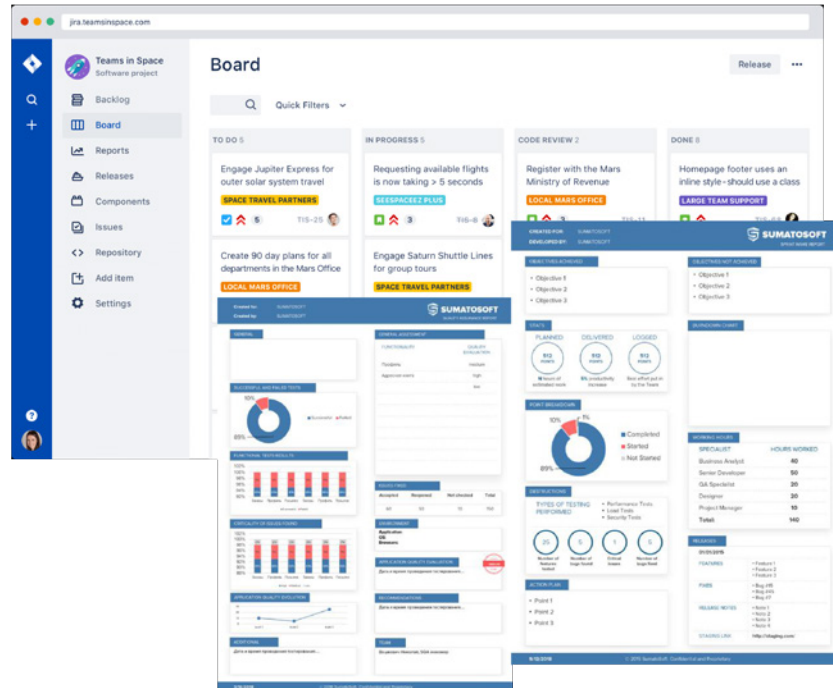✓ Deep project involvement and interest

✓ Predictable delivery

✓ Transparency and control of the process

✓ Sharing technological and domain experience and expertise

✓ Business success orientation

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Collaboration approach

YOUR IDEA

ANALYSIS

SPRINT 0

Product Backlog
Budget Planning
Releases Planning
Number of Sprints
Prototype

SPRINT 1

Sprint Backlog
Analysis
Design
Development
Testing
Deployment

SPRINT N

Sprint Backlog
Analysis
Design
Development
Testing
Deployment

PRODUCTION

SUPPORT

MICRORELEASE

FINAL RELEASE

✓ Well-defined and established cooperation processes and practices

✓ Following Agile methodologies (Scrum, Kanban)

✓ Adjusting to the business processes

✓ Augmenting with the business teams

✓ Assigning dedicated project manager / business analyst

7

![SUMATOSOFT]

Transparency and control

✓ Detailed reporting (Sprint / monthly reports, custom reports)

✓ 24/7 access to project management system (Jira, Trello, etc)

✓ Clear and detailed estimates

✓ Committed to defined timeframes

✓ Regular communication (calls, emails, chats, personal meetings)

Knowledge sharing & quality control
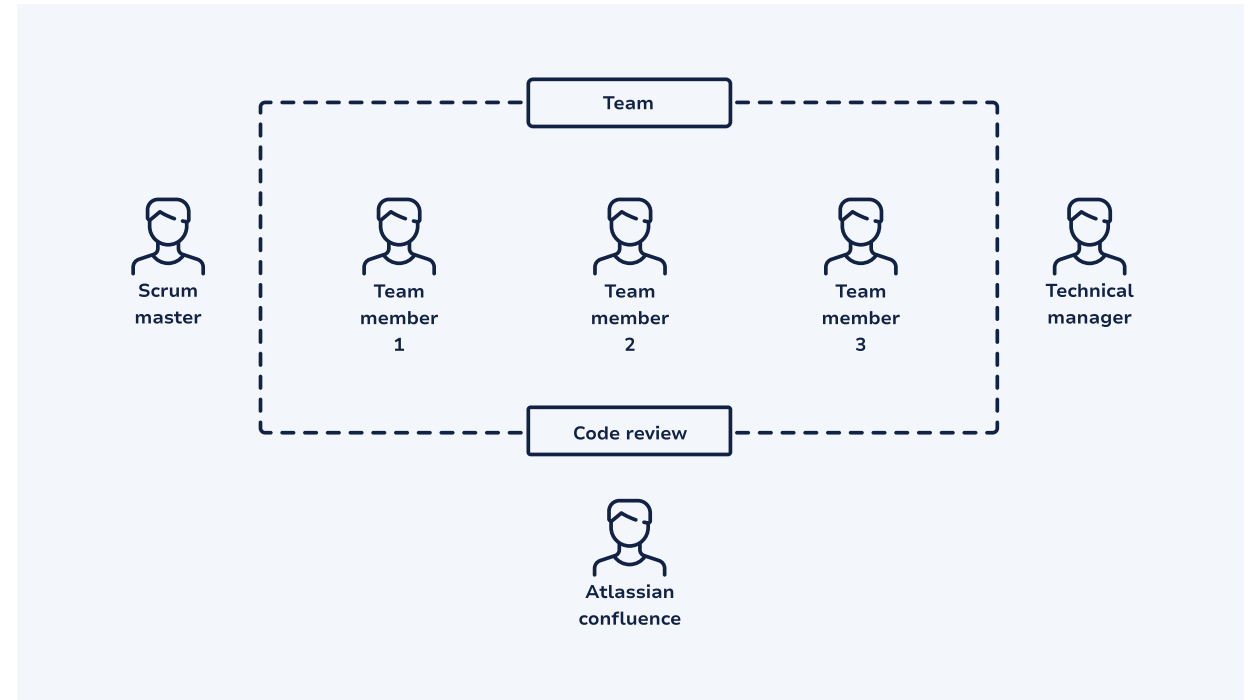
✓ Knowledge sharing process   ✓ Quality control through QA and tech review

✓ Detailed documentation   ✓ Highly qualified and experienced team
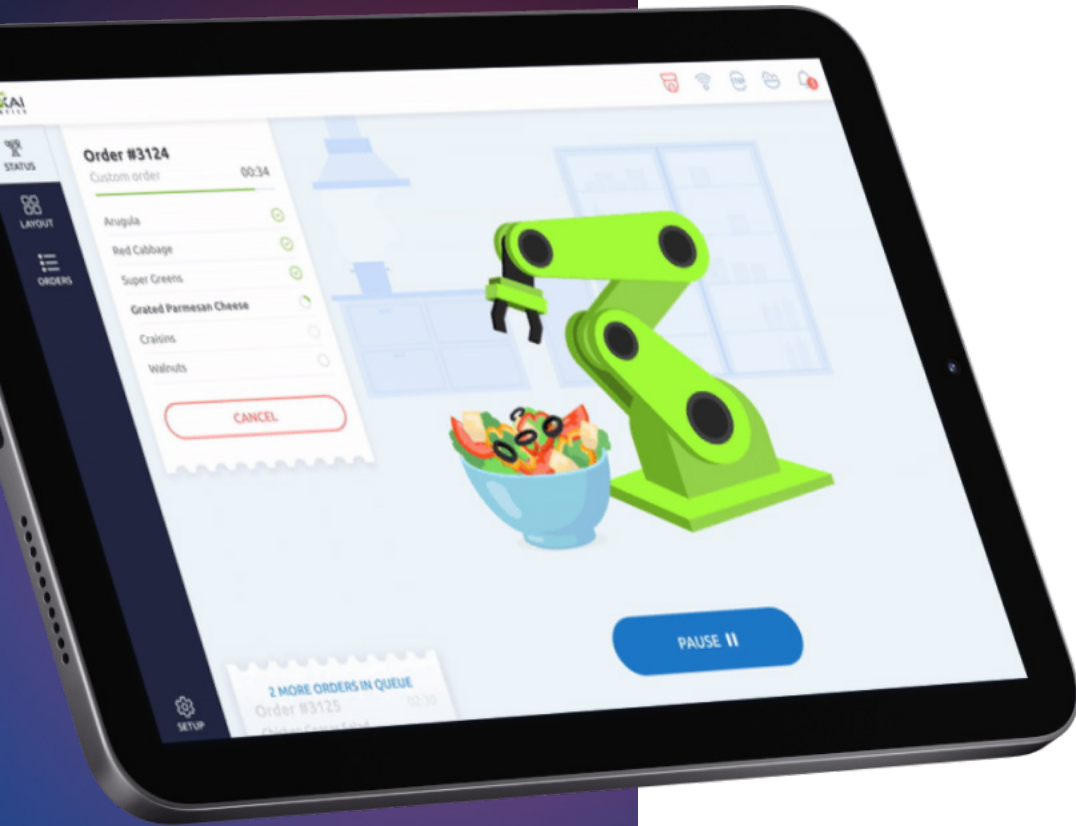
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Our projects

After years of custom business software development, we thoroughly understand the challenges our customers face. We systemized and analyzed that knowledge, then established accurate processes of software development that perform well in various domains, such as Healthcare, IoT, AI & ML solutions and others.

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dexai.com

Web | IoT | Boston, Massachusetts, USA

Graphical user interface for robot operation

Business challenge

There was a robotic arm named Alfred, but only robotics and software engineers could communicate with it. The client didn't have a user-friendly interface that sends commands to the robot or monitors its state.
The company planned to sell Alfred to restaurants and reached out to the SumatoSoft team to develop a platform with GUI for interaction between restaurant personnel and multiple robots.

The main challenges

Not all restaurant workers are native English speakers. Thus, GUI must be intuitive, informative, and simple so every restaurant worker can understand the current Alfred state or an error just at first sight on the screen.
Another challenge of this project was the requirement that the main order processing flow should work offline (without global Internet connectivity).

The list of additional requirements includes:

✓ Built-in user management system   ✓ POS systems integration

✓ Robot state and actions monitoring   ✓ Managing the order queue

✓ Sending commands to robots   ✓ Error/edge cases handling

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DEXAI
R O B O T I C S

dexai.com
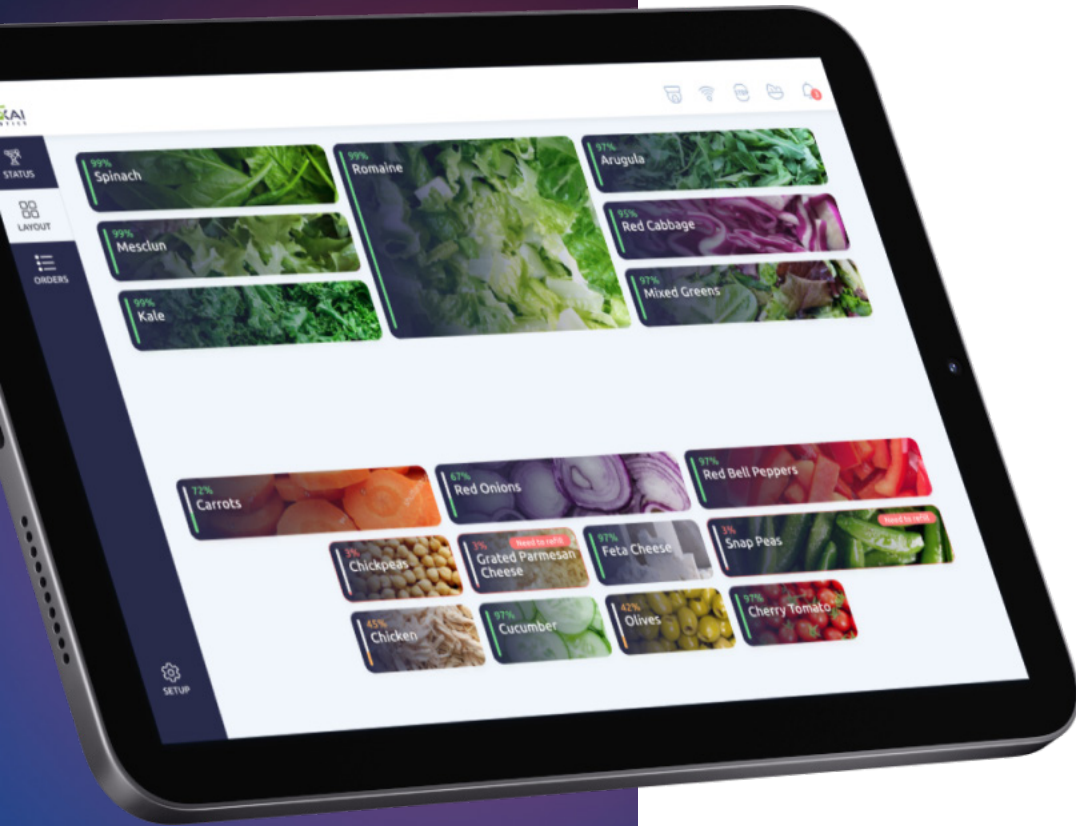
Solution

Our final solution was a progressive web application (PWA) as the main UI for kitchen staff based on our React UI application and Kitchen Coordinator server written in Python. We came up with a distributed microservice architecture with event-based communication.

Our final solution included multiple backend services:

✓ Service for order creation and storing them into the cloud

✓ Order queue management server

✓ UI for placing orders written in React JS and the cloud microservices written in Kotlin

✓ Microservice for storing and managing recipes

✓ Service for synchronizing data between on-premise and cloud service

Business benefits

The project was successfully completed, the user interface allows to send commands to the robot arm. The robot functionality is currently being finalized to start real-life commercial deployments.

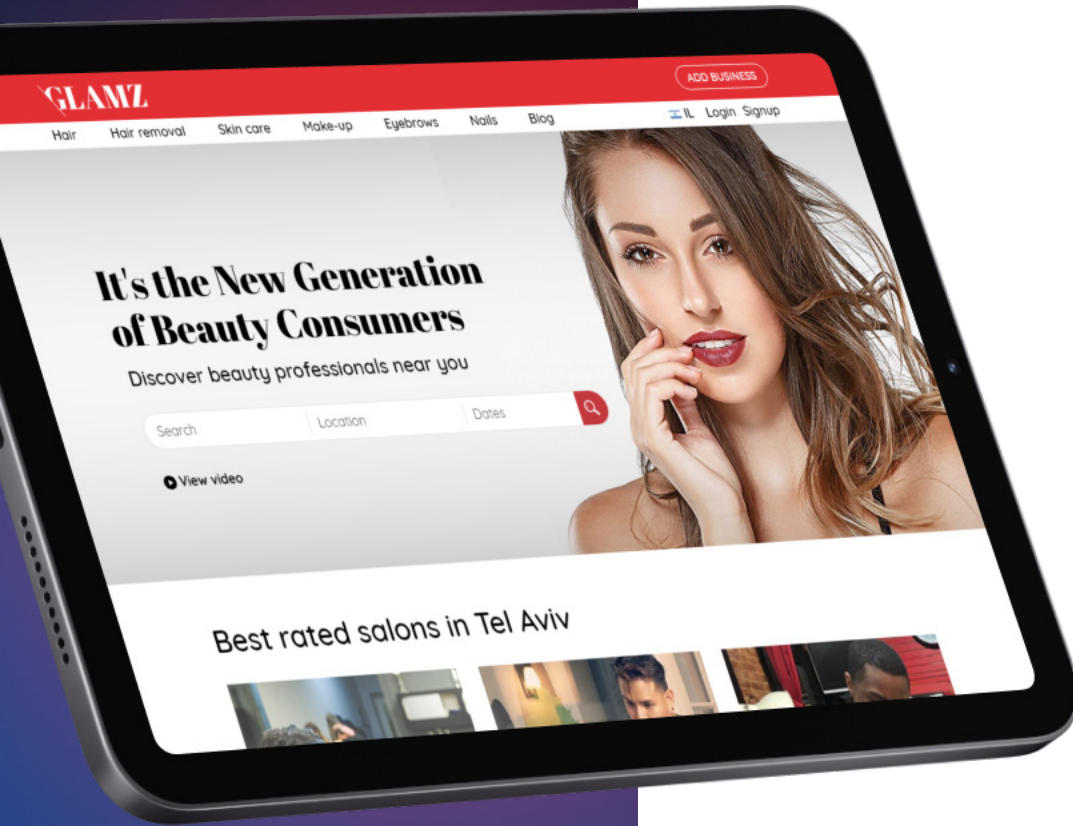**TECHNOLOGIES**

Ruby 2.7.0, Rails 6.0.2.1, React 17.0.1 and Workbox, Python 3.9, Flask 1.1.2, Kotlin 1.3.72, Postgres 12.3, RabbitMQ 3.8, MQTT, STOMP, LCM protocol, Docker and Docker-compose, Terraform, AWS: Lambda, API Gateway, S3, IoT Core, SNS, DynamoDB, Nginx, Gunicorn Sumologic

SERVICES

Business Analysis, Design, Development, Quality Assurance, Project Management

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Web   Beauty & fitness   Israel

Glamz: Platform for Beauty Professionals

Business challenge

The key challenge was to create a platform that will unite beauty professionals who are carefully selected based on real reviews and provide a wide range of beauty professionals for the platform users. Clients should have a chance to book appointments online fast and safely. Admin and Call Center should process any clients' requests and receive detailed reports about beauty professionals and clients' activity to constantly improve the platform based only on real user behavior.

The platform should have an ecommerce module with beauty professional products and up-to-date design where customer loyalty tools will be implemented.

Solution

At SumatoSoft, we have developed a solution for beauty professionals that offers comprehensive service to their businesses. GLAMZ ensures a steady flow of customers and significantly strengthens the image position in the market. Management system for each beauty & wellness professional allows them to manage a set of services, a detailed schedule, the full base of all registered clients with extensive statistics data.

GLAMZ clients can make an appointment and write a review to support full transparency with professionals providing reliable information about their services.

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GLAMZ
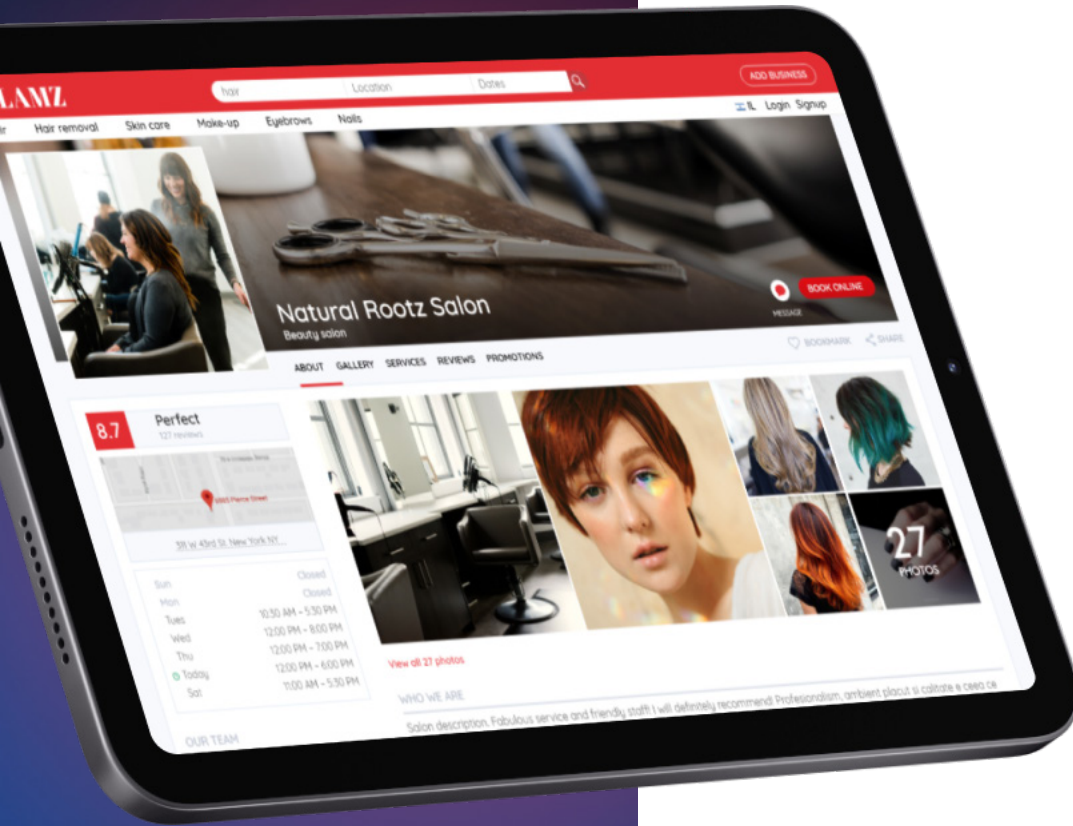
For beauty professionals:

- Electronic booking system with a calendar
- An advanced notification module with SMS and Pushnotifications.
- Detailed statistics and analytics allow to track the popularity among clients across a wide range of indicators and improve them.
- Client base with convenient management with automatic client base update.
- Beauty salons may optionally apply no-show and cancellation fees.
- Data aggregation and synchronization between the Glamz platform and Google Calendar.
- Native mobile applications on iOS or Android.

For clients:

- Advanced search module for the best beauty professionals who are strictly selected by real checked reviews.
- Booking appointments at the click of a button.
- Notification feature that helps not to lose the important information.
- All clients, even those not registered can download native mobile applications on iOS or Android and find a relevant beauty professional using easy filters.

Business benefits

Glamz platform is growing and developing rapidly and less than a year of work has reached more than 1200 verified companies that actively use the platform and 13K+ registered clients. About 30 new clients are registered on the platform daily and 150-200 appointments are created. More than 20K downloads of iOS and Android applications and the rapid growth of new users.

TECHNOLOGIES	SERVICES
Kotlin, Google Android 6.0+, Android Extension Library, RxJava, Google Dagger, Swift 5.0, CocoaPods, Alamofire, MVVM, Google Firebase, GoogleMaps, Apple MapKit, CalendarKit	Business Analysis, Design, Development, Quality Assurance, Project Management, Support

13

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TL NIKA GROUP
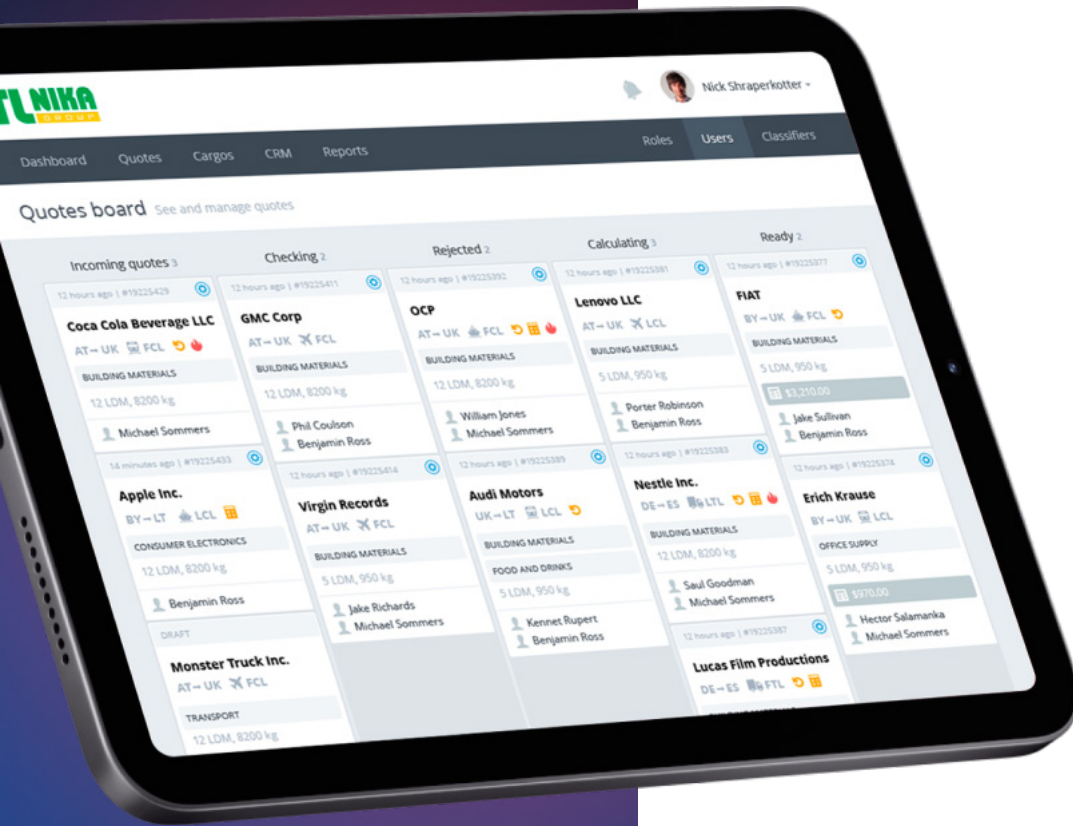
tlnika.lt

| Web | Logistics | Vilnius, Lithuania |

TL Nika: Transportation Management System Development

Business challenge

The Client needed a brand-new modern logistics management system that would meet their business needs instead of an outdated and inefficient solution the company had been using.
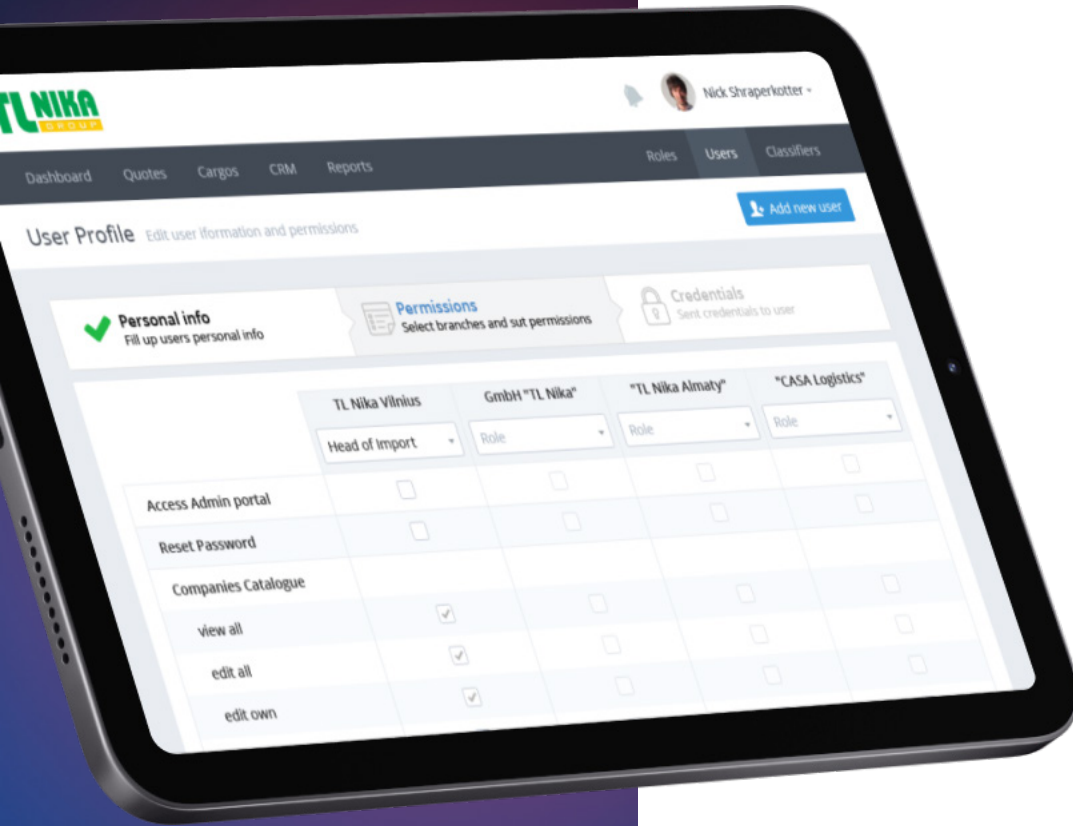
Solution

SumatoSoft built a completely new system from scratch. The use of state-of-the-art technology and refined software architecture provides higher scalability and enables smooth further enhancements. The newly redesigned product features top-notch UI design, while the enhanced and extended functionality set offers a much wider range of cargo tracking and customer management tools.

Distinctive features of the brand-new solution are the following:

✓ Custom CRM system with complex logic and extended functionality;

✓ Administrative Interface with an agile tool for permissions management: users management, entities management, classifiers management and many more;

✓ Client portal for monitoring cargo status updates;

✓ Quotes management: tracking of shipping requests, cost calculation, etc.;

✓ Orders management: real-time cargo tracking from the moment of dispatch to arriving to warehouse, consolidation and delivery to the addressee;

✓ Cargo Consolidation Module (compliant with regulations);

✓ Accounting Module;

✓ Waybill Print Module

14

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tlnika.lt

Business benefits

The new platform is one of its kind, as currently there are no software solutions on the market adequately covering logistics operation management and cargo dispatch tracking. It is modern, multifunctional and convenient for both the Client and their customers. That is why TL Nika gives a competitive edge to the Client.

The product allows tracking cargo all the way down to the destination, which enables the Company to find optimal ways to successfully overcome challenges along the cargo route and make informed business decisions.

Furthermore, implementation of the new cutting-edge system enabled the Customer to maintain low cost and high efficiency, amid increasing complexity of the company's services.

In addition, the solution's scalability, provided by SumatoSoft, is intended to allow the Customer to expand their application in the future and transform it into a robust and fully-featured SaaS solution.

| TECHNOLOGIES	SERVICES
Ruby On Rails 4.0, HTML5, MySQL, AngularJS	Business Analysis, Design, Development, Quality Assurance, Project Management

" SumatoSoft succeeded in building a more manageable solution that is much easier to maintain. Although they are a small team, their project management reflects the excellence of a larger company. Their team delivers high-quality results, attentive service, and reasonable pricing.

Yevgeniy Rozenblat
Program Manager, TL Nika

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TOYOTA
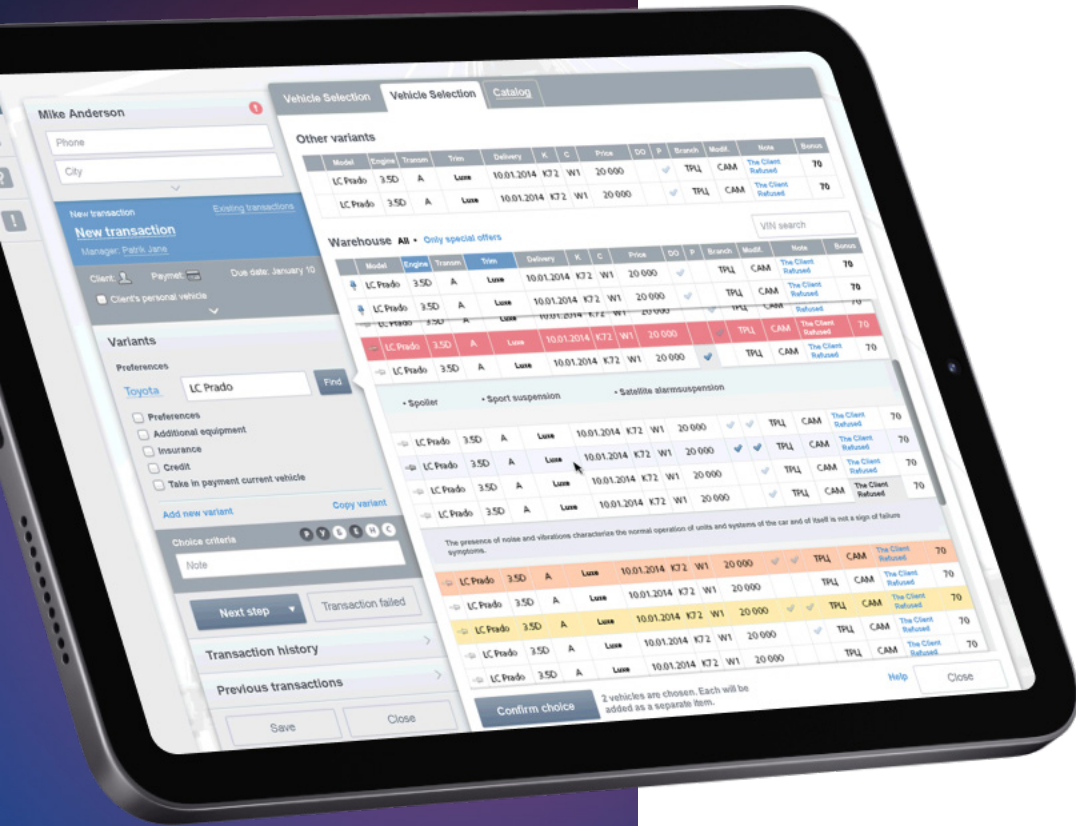
business-car.ru

Web   Enterprise   Russia, Moscow

Custom CRM System Development for Toyota Car Dealer

Business challenge

Scalex is a custom ERP system developed for the Business Car Group, the largest Toyota and Lexus car dealer in Russia. The old IT solutions were uncoordinated tech platforms requiring costly maintenance and support. The main project purpose was to replace those systems automating key business processes for trade and technical centers, including gross and retail sales of cars, spare parts and accessories, warehousing inventories and cars service maintenance with a solution that, as a minimum, would replace existing functionality.

Business aims:

- ✓ To optimize business processes of the company and its infrastructure;
- ✓ To support the Toyota Service Marketing (TSM) methodology;
- ✓ To decrease costs and time spent on modifications to the system and its adaption to the changing business processes;
- ✓ To maintain work of local representative offices within a global information structure.

As some part of the client's business had been automated, there was a need to integrate new solutions with the ones in use and eventually replace them with new systems.
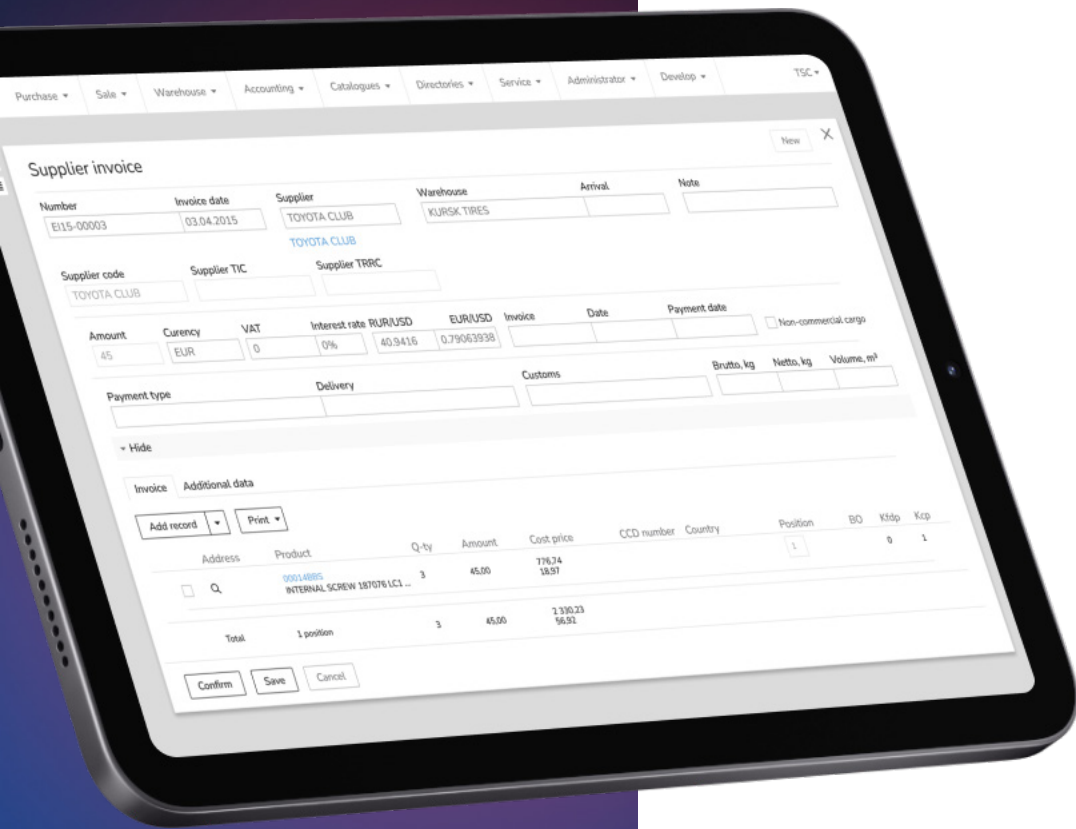
Solution

To hasten the system development and its implementation, and to reduce the time between first release and receiving feedback from real users, we chose Ruby On Rails and the Scrum methodology to use.

16

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TOYOTA

business-car.ru

At first, we developed the most popular module — CRM. The module includes virtual desktops for each employee role interacting with the dealer's clients. The desktop includes a set of tasks concerning customer support. CRM module has been successfully introduced in 20 centers around the country.

CRM module features:

✓ «Service», «Spares», and «Accounting» modules for services and documents circulation automation;

✓ Navigation without browser pages reload;

✓ Flexible security system, which allows adding and editing access rights of the users;

✓ Interface for interaction with previous systems used by the client.

Business benefits

✓ Automated car sales and service;

✓ Reduced operating costs for maintenance of IT infrastructure;

✓ Accelerated sales cycle;

✓ Improved customer retention rates.

TECHNOLOGIES
Ruby on Rails 4.0, Nginx, Sidekiq, Redis, Faye, PostgreSQL, CoffeScript, JQuery, Bootstrap

SERVICES
Development, Quality Assurance

" When looking for a strategic IT-partner for the development of a corporate ERP solution, we chose SumatoSoft. The company proved itself a reliable provider of IT services. We are pleased to mention that the work is done to the full extent, on time and on a high quality level. It complies with the requirements due to the highly skilled project team of our chosen partner. We recommend SumatoSoft as a reliable partner in the sphere of development and implementation of complex business solutions.

Yuriy Semenchuk
General Director

SUMATOSOFT
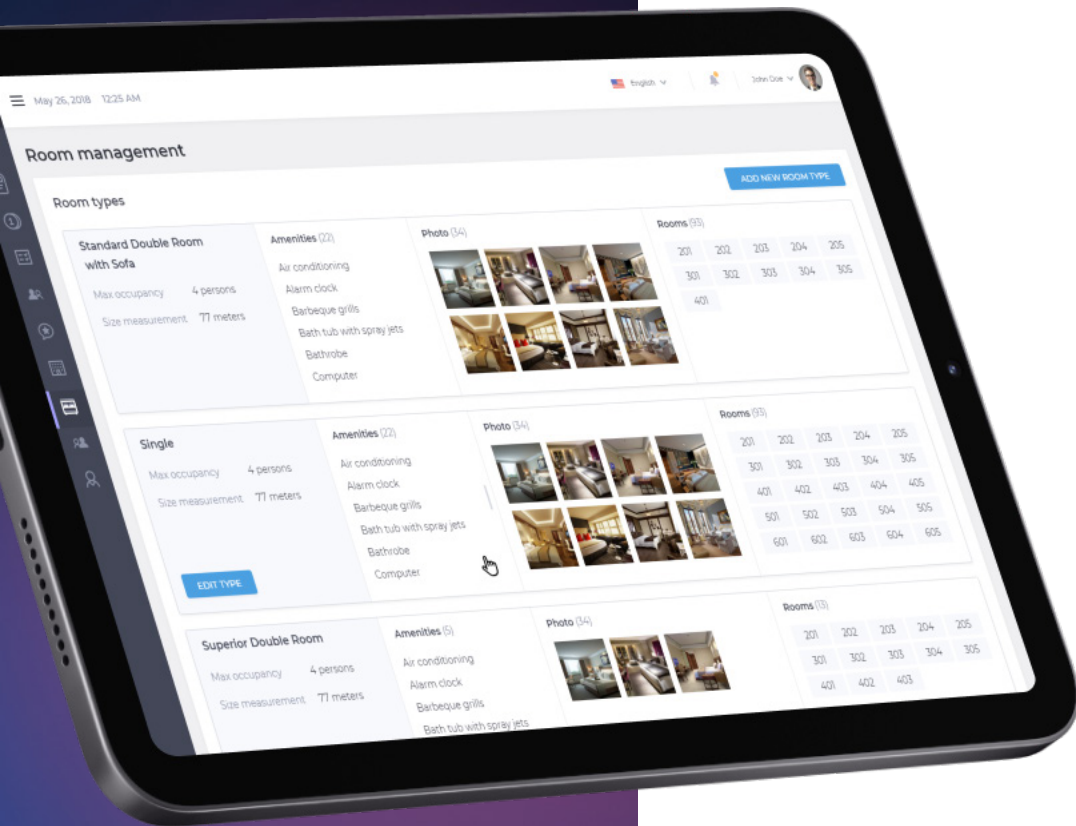
Web   Saudi Arabia

Smart Integration Hotel Management System

Business challenge

The client owns several hotels and decided to develop a hotel management system that simplifies the interaction between hotel visitors and staff with simple and intuitive control. The management system should help to improve the quality of service and be closer to their customers.

Solution

SumatoSoft team helped to plan, design and develop a solution with the following features:

- ✓ Easy to use FrontDesk screen (room-date matrix) with drag and drop and custom search;
- ✓ Offline mode to view FrontDesk and reservations details;
- ✓ Localization for English and Arabic.
- ✓ Smart integration solutions
- ✓ Automatic Night audit process with scheduled calculations and statuses updates
- ✓ Email and SMS integrations
- ✓ Smart integration solutions
- ✓ Rates and rooms management
- ✓ Full reservation management process: guest data, invoice, registration card, sending emails and SMSs

18
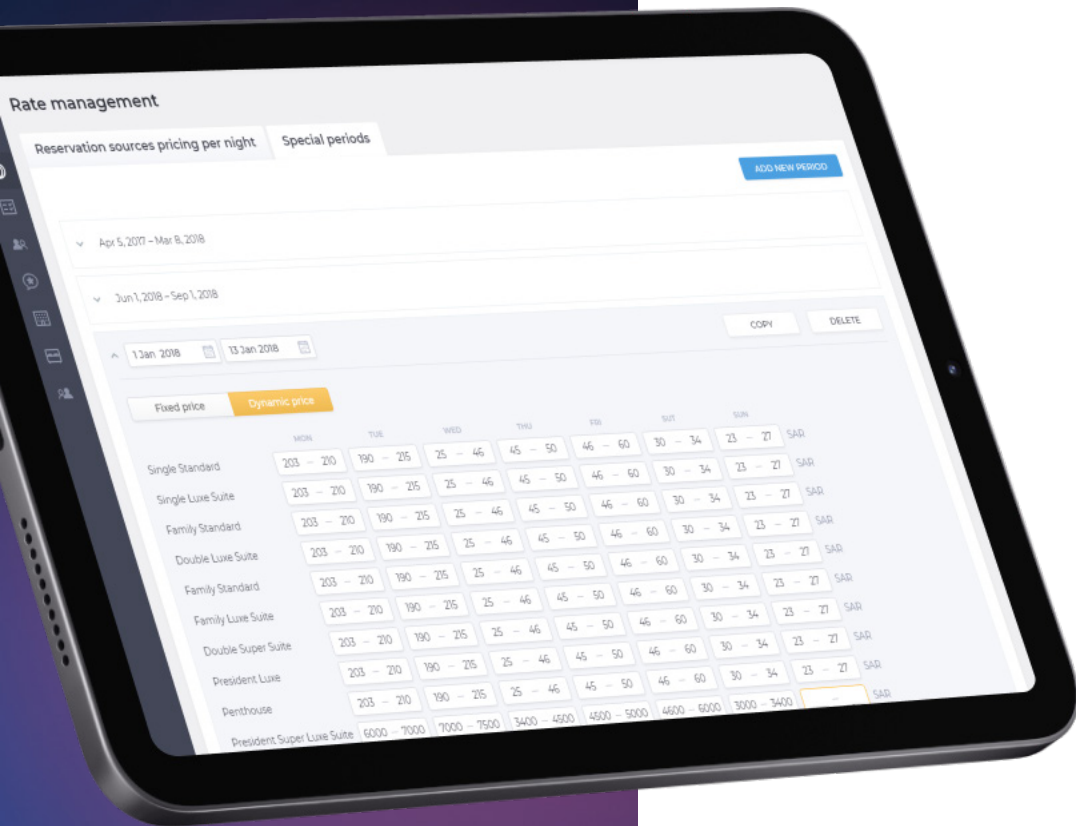
Business benefits

SumatoSoft has developed an MVP version of the SaaS project. This platform has been successfully integrated into the customer's internal network and is being tested at several hotels of the customer and his partners.
All the features have greatly simplified the room reservation, improve the work of staff and quality of service. This also affects the level of hotel guests' satisfaction and saves money for the business.

TECHNOLOGIES
PostgreSQL, Ruby on Rails, React, Nginx, Amazon AWS, Phusion Passenger, Bootstrap

SERVICES
Business Analysis, Design, Development, QA and Testing, Project Management

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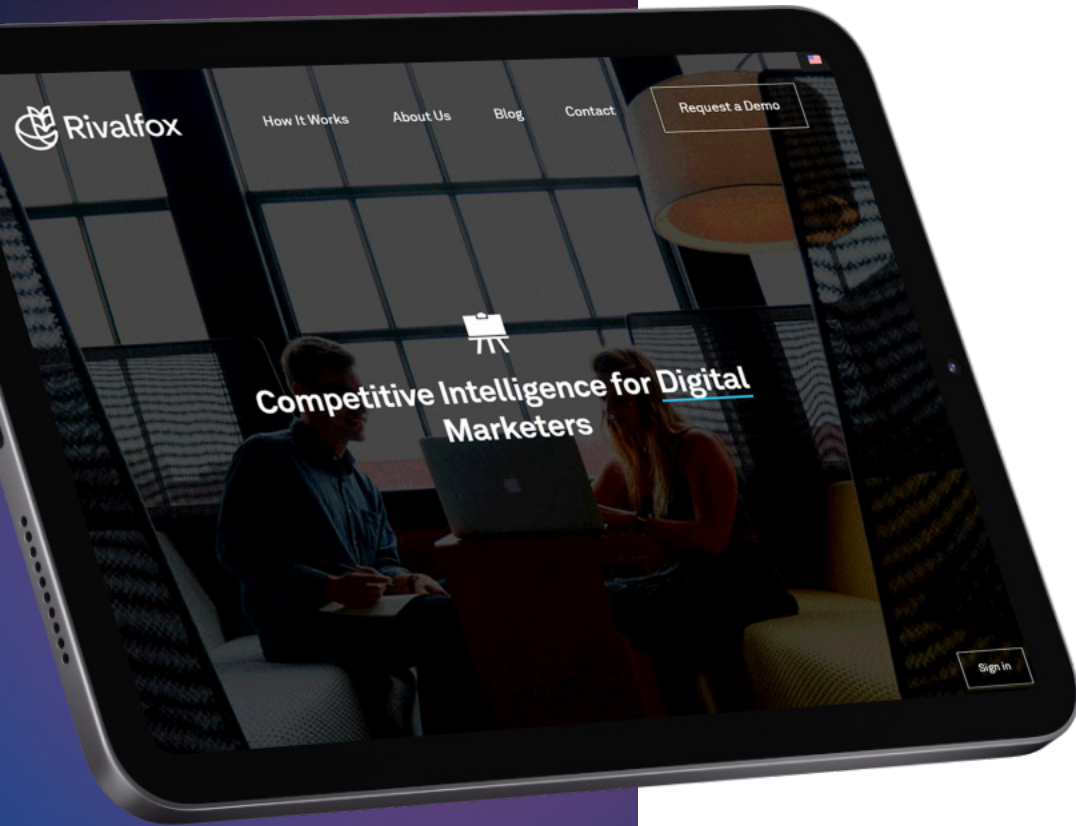
Rivalfox

Web   Adtech   Germany, Berlin

RivalFox: Marketing Tracking Tool Development

Business challenge

The initial product's development was done by the client's in-house engineers. However, the project was highly complex and required a larger experienced team. This way, the client felt the need for the additional technological expertise from SumatoSoft to master their product in full measure.

Solution

Following the Scrum methodology, we upgraded the application making the solution easily scalable for future changes. To improve the quality of reports, SumatoSoft's team developed the analytics system which monitors the effectiveness of customers' marketing strategy.

Finally, the system performance was optimized to increase the application's responsiveness, reduce the server load, and decrease server costs.

Distinctive features

- ✓ Highly customizable web,csv, pptx reports;
- ✓ Analytics system based on DSL;
- ✓ Dynamic charts for rendering analytics data;
- ✓ Online feed tracking the latest social networks' activity of customers' competitors;
- ✓ Optimized database structure.

20

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Business benefits

The client was able to reduce the maintenance costs for the tool. The implementation of feed search made possible to reduce the quantity of servers which led to the notable reduction of server costs. Plus, the development of new analytics and analytics reports functionality helped to gain new clients and investments.

TECHNOLOGIES	SERVICES
Ruby on Rails 4.0, Apache, MySQL, CoffeeScript, JQuery	Development, Quality Assurance, Project Management

" The Rivalfox had the pleasure to work with SumatoSoft in building out core portions of our product, and the results really couldn't have been better. SumatoSoft supercharged our productivity by providing us with three team members whose technological expertise was surpassed only by their enthusiasm. SumatoSoft provided us with engineering expertise, enthusiasm and great people that were focused on creating quality features quickly.

Paul S. Chun
CTO, Rivalfox GmbH

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Widgety.

widgety.org
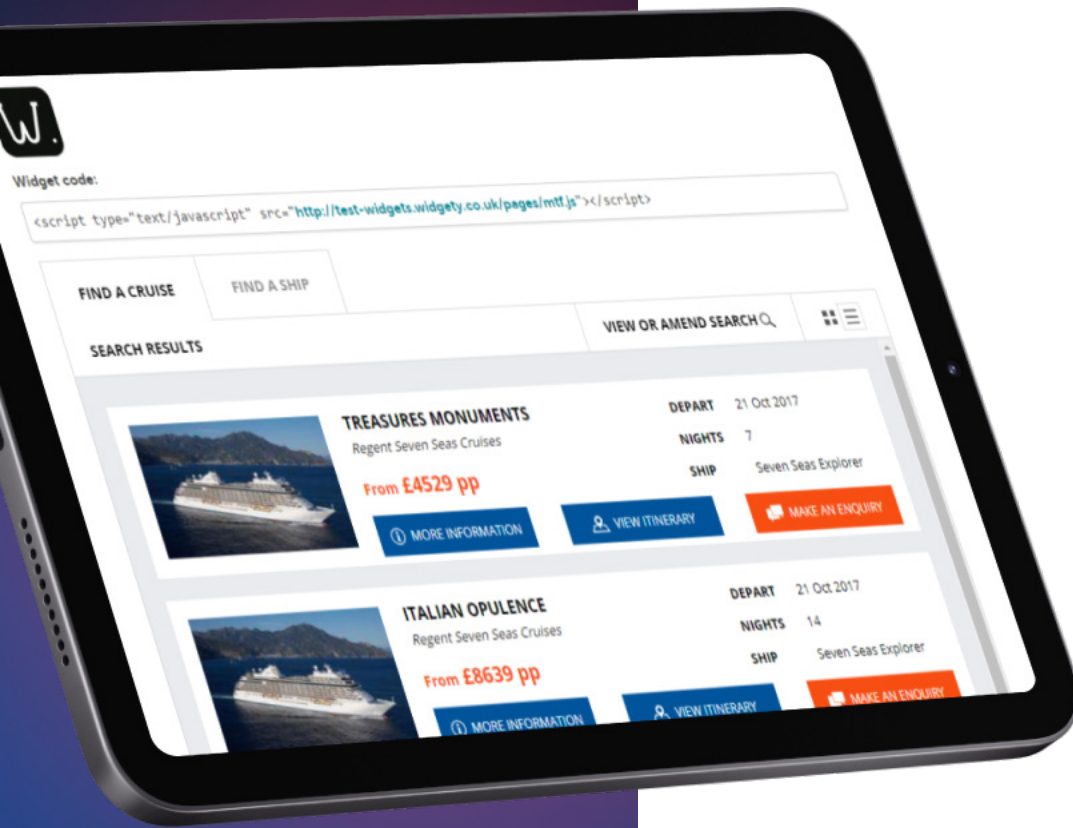
Web	Tourism	The UK

Widgety: Content Library for Tourism, Cruise and Travel

Business challenge

The Client wanted to gather data on various cruises, cruising ships, and tourist events in one place. These data had to be delivered via an API. Moreover, it was needed to integrate and upgrade a special widget constructor which allowed travel vendors to submit the info on cruises using a widget - a crucial feature for those who would like to integrate their website with Widgety service instead of building a custom one.
We needed to optimize the solution performance making it stable for use and implement new core features to extend the solution's functionality.

Solution

Following the Kanban methodology, we optimized and upgraded the solution performance making it stable for use. Now the solution is easily scalable for future changes.

Distinctive features

✓ Widget constructor allowing vendors to submit the info on cruises in no time via widget;

✓ REST API which allows developers to use the data taken from Widgety on third party websites;

✓ Performance optimization;

✓ Additional data sources integration taken from third-party websites.

22

![SUMATOSOFT]

Widgety.

widgety.org
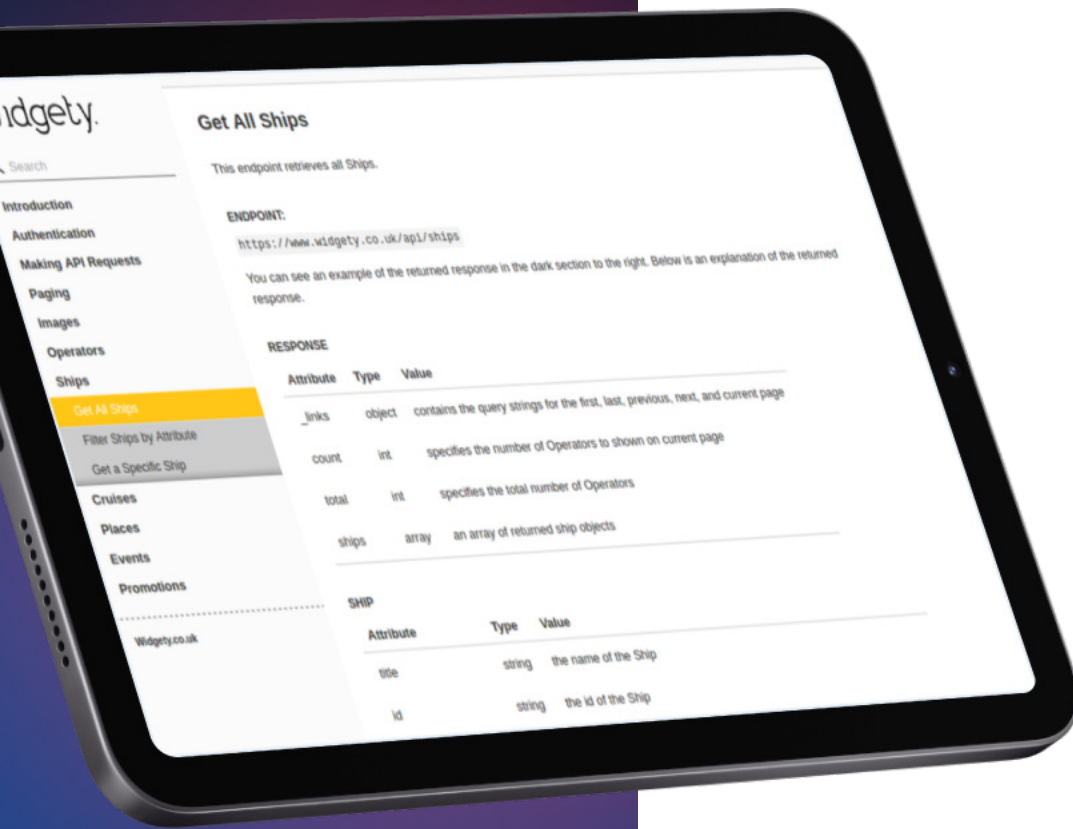
Business benefits

As a result of our work, the Client was able to expand the feature list of the application. The implementation of the widget constructor helped to attract new vendors and provide more options for customers. Our custom solution made possible to increase the flexibility of the system which can be easily upgraded according to the future business requirements.

TECHNOLOGIES
Ruby on Rails, JavaScript, CofeeScript, PostgreSQL

SERVICES
Development, Quality Assurance, Project Management

" SumatoSoft's engineers help the company maintain and enhance a digital distribution platform that lets its paying users create and access original content. SumatoSoft brings uncompromising responsiveness and transparency to the table.

Damian Gevertz
Founder & CEO

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TARTLE

tartle.co

Web   USA

Big Data Trading Platform

Business challenge

The Client turned to SumatoSoft and requested to create a marketplace for people and organizations with a blockchain-based identity for selling and buying big data without any third-party involvement.

Solution

With a strong emphasis on meeting the Client's business needs, requirements, and objectives, SumatoSoft built a unique product that consists of a web platform and an iOS mobile application. Users can remain anonymous, protect their privacy, encrypt and categorize information, and based on bids select the best price to sell and buy data.

Distinctive features

✓ Bitcoin wallets as a way to make and receive payments on the platform. The wallets are stored on a secure server, backed by a full bitcoin node;

✓ A web platform for big data buyers with Wallet Module, data packets, and Bidding Module; interactive statistics on data packets relevance;

✓ iOS application for big data providers of private digital identity with Wallet Module, Data Management, and Sales Module;

✓ Administrative Interface with a tool for user management, entity management, bids statistics, users suggestions.

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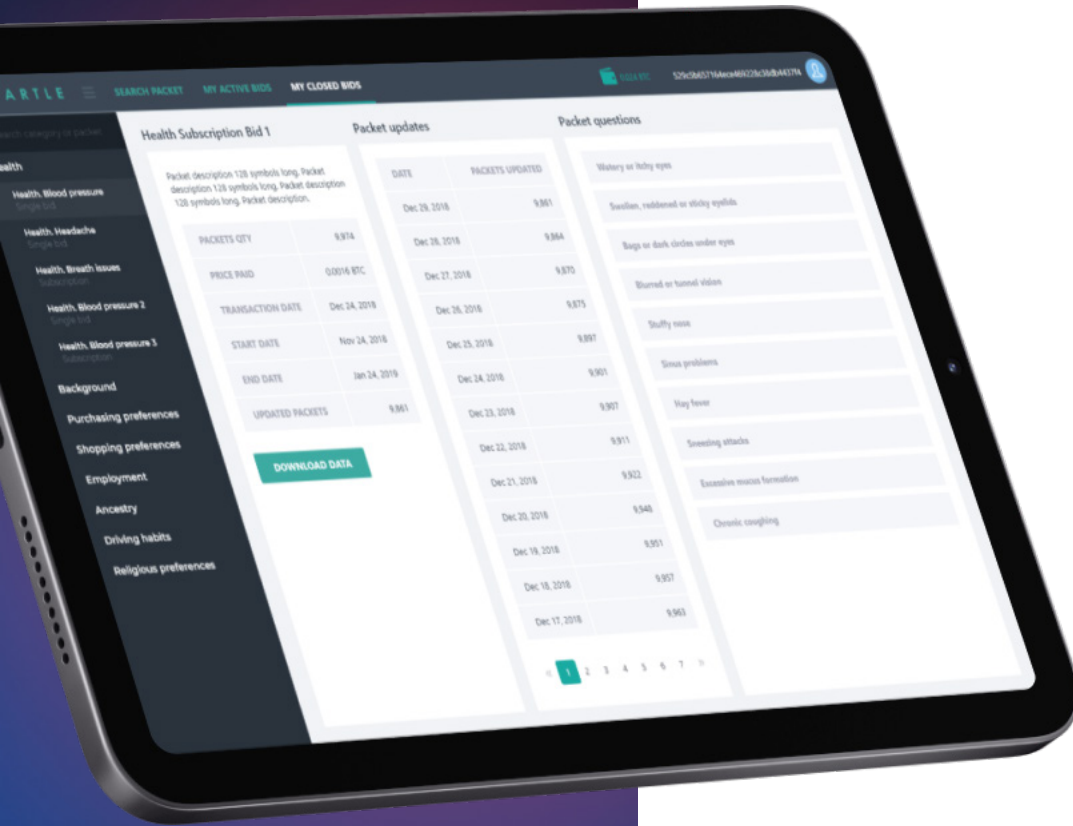
T A R T L E

tartle.co

Business benefits

Tartle is a comprehensive web and mobile platform for trading big data, designed for people and organizations that prefer to stay anonymous. This global exchange platform allows users across the globe to anonymously and securely purchase and sell big data at the best prices.
The minimum viable product was successfully presented to investors and approved by them. As a result, the project got a significant investment.

TECHNOLOGIES
Ruby on Rails, PostgreSQL, JavaScript, ReactJS, Redux, Git, Amazon services, Bitcoin Core for bitcoin wallets management,

SERVICES
Business Analysis, Design, Development, QA and Testing, Support

" The system has produced a significant competitive advantage in the industry thanks to SumatoSoft's well-thought opinions. They shouldered the burden of constantly updating a project management tool with a high level of detail and were committed to producing the best possible solution.

Alexander McCaig
Co-Founder & CEO

25

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IoT   Consumer services   London, UK

Internet of Things Application Development

Business challenge

Fridge Sensors is an Internet of Things solution providing restaurants and pubs owners a possibility to monitor fridges work online, get alerts on urgent issues and manage historical data. When the client contacted SumatoSoft, the company had a few goals to reach:

✓ to plan, design and develop an MVP (minimal viable product) prototype of the solution to demonstrate the idea to potential clients and investors;

✓ to integrate the application planned into the ecosystem of the client's existing solutions.

The client had already the devices developed and tested. SumatoSoft main task was to develop administration and end user panels, implement core features for monitoring and data visualization (temperature, electricity, door sensor), and provide integration with the data source.

Solution

SumatoSoft gathered a highly professional team and introduced the following technological features:

✓ Startup Ideas creation and development

✓ A web panel for the service administrators;

✓ A web panel for the end users.

26
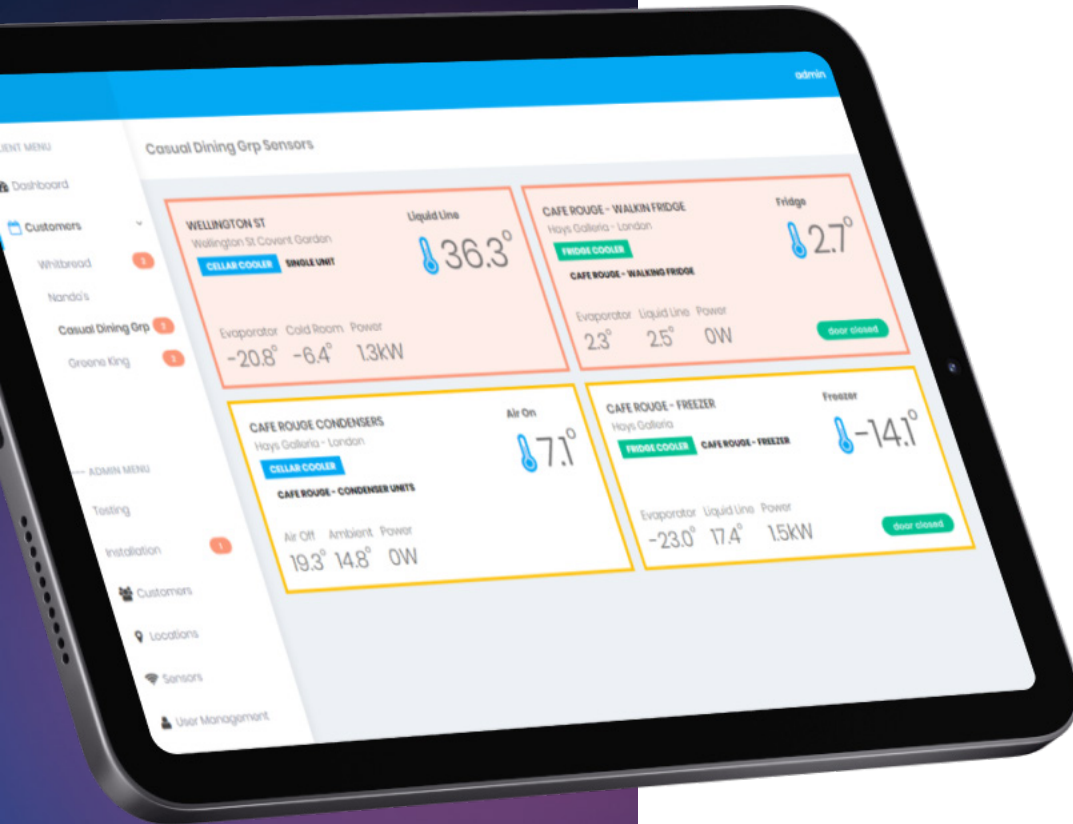
Specific features

✓ Roles management system with an extended permissions management;

✓ External data source integration (Firebase);

✓ JS library integration for data visualization.

✓ The overall system performance was optimized to support up to 500 fridges on 1 account.

Business benefits

The client was able to present the solution to potential clients, test the business idea and receive a positive feedback which allowed them to move forward with the project development. The client has already received several orders from the major clients using its other solutions.

TECHNOLOGIES	SERVICES
Ruby (Ruby on Rails), JavaScript, Firebase, PostgreSQL	Development, Quality Assurance, Project Management

![SUMATOSOFT]

Web   Human resource management   USA, Boston

Evolv: Facebook Profiles Grabber

Business challenge

Evolv (now Cornerstone OnDemand), one of leading companies in Big Data arrays analysis and human resources management, studies the employee's' effectiveness at all stages, from hiring to dismissal in big corporations.

The company wanted to make a unique system, which would automatically load and systematize the information shared by employees in Facebook, including screenshots of profiles.

Solution

We used Ruby On Rails and Facebook API to carry out the system's development. The client part was developed with BootStrap in full accordance with Evolv requirements to user interface.

A certain technical complexity was represented by implementation of screenshots taking system. For this purpose, we integrated system with an offsite paid service.

Cornerstoneondemand

SUMATOSOFT

Business benefits

Thanks to the system, the company plans to gain additional revenue stream by providing unique service for human resource managers.

This service will also be a good advantage providing growth of competitive differentiation and helping to increase the company's market share.

TECHNOLOGIES	SERVICES
Ruby on Rails, Apache, MySQL, Bootstrap, JQuery, url2png	Development

" They are very sharp and have a high quality team. I expect quality from people, and they have the kind of team I can work with. They were upfront about everything that needed to be done.

Michael Karbushev
Senior Director of
Engineering at Evolv

Cornerstoneondemand

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Web   Startup   USA

CRM System Testing

Business challenge

Our Client (NDA) is a startup owning several SaaS systems, including a big CRM system written on .Net. The Client faced the necessity to adjust automatic testing process. Even though the CRM system had been available at the market for some time and the company had a rather extended team of QA specialists, the Client faced problems of the service quality: users started to leave as the number of critical reviews was growing.

Solution

To reduce expenses on manual testing, we singled out the functionality requiring manual QA, and the functionality where QA could be automated. When the tests plan was brought up to date, the most crucial and the less variable functionality was automated using Selenium. Our specialists recommended and implemented Unit-testing. In addition, we realized several sessions of stress testing.

Results

✓ 5,000 bugs of various complexity found;

✓ Improved data integrity in the system;

✓ The number of critical bugs, which real users could find, was reduced up to 0;

✓ The number of bugs in business functionality was reduced by 4 times;

✓ The bug percentage in the layout and UI reduced by more than 10 times.

Business benefits

The client managed to reduce costs on the system maintenance, increase customer's' loyalty and increase its market share. The measures taken by the developers after the stress testing allowed improving data integrity in the system and increasing the peak load up to 42% without the infrastructure change.

TECHNOLOGIES
JMeter, Jira, Selenium RC, Tomcat

SERVICES
Development, Quality Assurance, Project Management

Web   Adtech   Singapore

Display Advertising: Content Ads Management Platform

Business challenge

The Client wanted to build a content ads management platform for his startup. In a nutshell, the solution's key feature makes possible to create of content ads units in several minutes. The project of such level of complexity required the following tasks to complete:

✓ to plan and create a platform for content marketing;

✓ to implement custom analytics and analytics dashboard;

✓ to implement video ads;

✓ to provide machine learning optimization for ads;

✓ to support all major ad servers.

The frequency of each ad was planned to be displayed using the optimisation engine. This way, a higher performing ad would be displayed more frequently than a lower performing ad. The main business aim was to allow marketers, agencies and publishers to create high performing and optimised ad campaigns for their content marketing activities with no previous experience or design skills required.

Solution

We started the project by building a high performance database structure and distributed services architecture. Then we proceeded to the implementation of a banner tag generation for the most popular ad servers. Our team developed both custom analytics/dashboard and optimized all

32

content ads for high CTR to make them mobile-friendly.

Finally, a large variety of different ad types and sizes is supported. Now the application can be seamlessly integrated with industry leading Ad Servers and major Demand Side Platforms (DSPs).

The tool makes possible to:

✓ create content ad units just by adding a URL and title;

✓ take away the guesswork, analyze each impression and select the best ads to be served.

Business benefits

To client's content, the successful launch of the platform validated the worth of the initial business idea. Thanks to SumatoSoft's expertise and skills, the platform was developed and brought to market promptly. At the present time, the solution is gaining new customers and attracting investments.

TECHNOLOGIES	SERVICES
Ruby on Rails, Turbolink 5, Facebook Authentication, Google Plus Authentication, Searchkick, Stripe Integration, Bootstrap Summernote	Business analysis, Design, Development, Quality Assurance, Project Management

" SumatoSoft delivered a viable solution in an aggressive 2-month timeframe thanks to their organized approach and technical expertise. The assigned project team was professional, communicative, and contributed proactively wherever appropriate.

Travis
Founder

SUMATOSOFT

Web | Management | USA

# Cost Management Platform Development

Business challenge

The client referred to us with specific business goals and expectations. As top developers, we were expected to:

1. check that the business idea is feasible from a technical perspective;
2. build a complex system that calculates charge rates of construction equipment;
3. implement a core charge rates calculator algorithm that must encompass all equipment costs during the exploitation;
4. add a variety of visualizations and analytics to display vast amounts of information;
5. be fully transparent: provide weekly work progress reports and monthly budget forecasts, and stick to the strict delivery schedule;
6. be able to work within quickly evolving and changing requirements. Ability to track changes and keep up with requirements updates;
7. achieve and maintain top development speed, present the Pilot version to potential clients and investors on time;
8. reach desired technical metrics regarding performance, security, and scalability;

Solution

✓ We developed a **full-fledged web platform with all major functionality implemented.** The MVP is ready for presentation to users and investors.

✓ We **managed to programm algorithm that calculates the equiments charge rates.** The algorythm encompasses custody and operating costs. Thanks to that, we proved that the business idea was viable.

34

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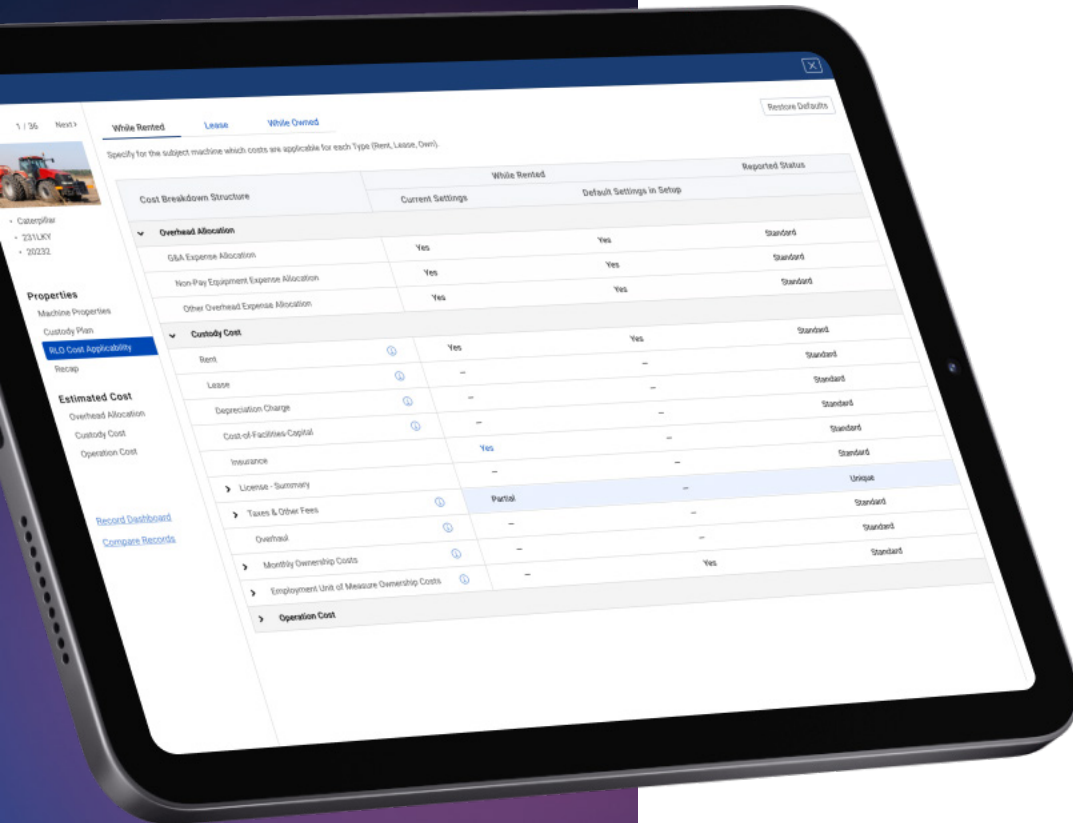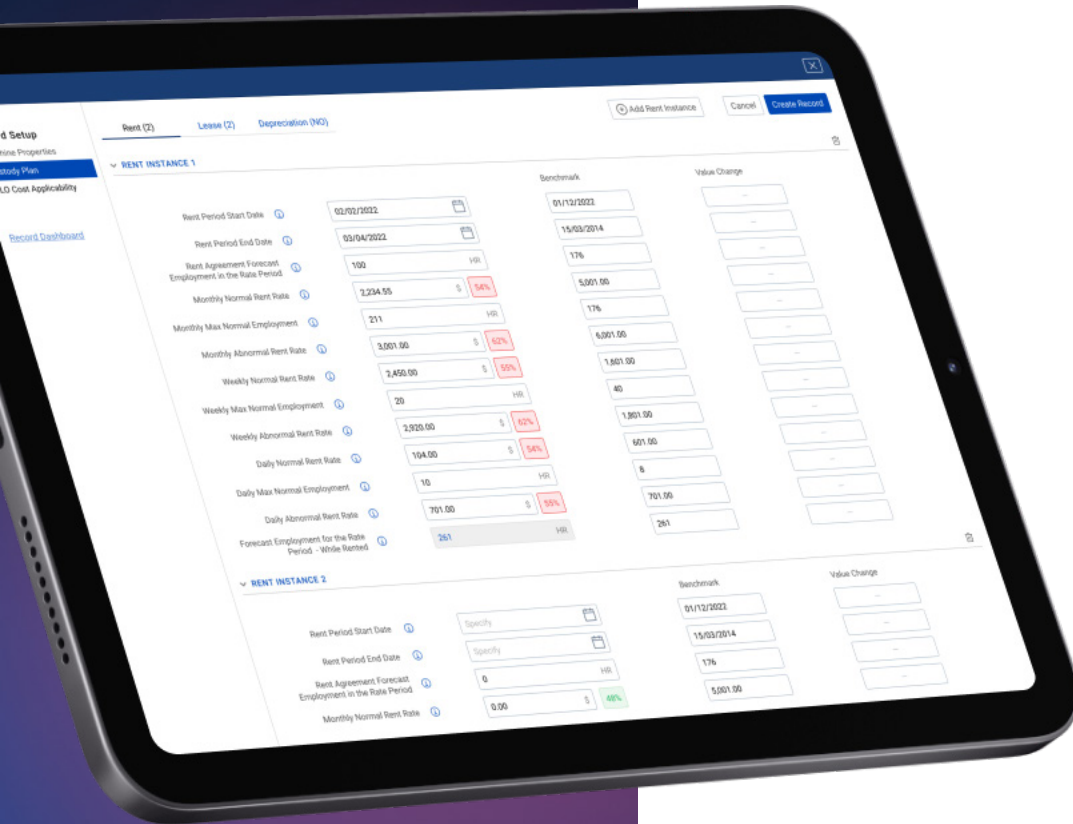
✓ **Comprehensive construction equipment management interfaces**. Cost breakdown structure, construction equipment list with its properties, standard and unique properties for every type of equipment.

✓ **Scalable architecture** that can store and calculate a large number of machine equipment.

Business benefits

Client got a full-fledged platform with complex logic of real-time calculations and visualizations. The solution proves that the business idea is viable and helps the client to move forward with the next investor rounds and further concept evolution.

TECHNOLOGIES	SERVICES
React, Typescript, Highcharts, Material-UI, Devexpress/dx-react-grid, Java, SpringBoot, Spring, Lombok	Business Analysis, Design, Development, Quality Assurance, Project Management

SUMATOSOFT

Web   Belgium

Remote Simultaneous Interpretation Web Platform for Conferences

Business challenge

Our Clients, a group of professional interpreters operating in Belgium were forced to move online during the COVID pandemic. They reviewed all major online tools on the market that were suitable for interpreting at big conferences and were left unsatisfied by their features and overall user experience. Recognizing the limitations of these existing solutions, they decided to pioneer their own. This led to the inception of a project aimed at building a platform tailored for interpreters, by interpreters.

Main Challenge

Develop an online system that would feel familiar to interpreters accustomed to offline work. Offline, interpreters sit in pairs in a soundproof booth, listen to the speaker through headphones, and speak into a microphone, all while managing a system interface to adjust settings, select channels, or control other features. Our task was to translate this experience to the digital world, designing interfaces and channels that resemble those of physical devices used by interpreters. Moreover, the platform architecture must be able to handle large-scale online conferences with multiple online channels.

Solution

During the Discovery phase, we undertook a detailed study of offline interpreters' equipment and existing online tools, leading to the identification of four user roles: Moderator, Speaker, Listener, Interpreter. Understanding these roles allowed us to map out the necessary features for each user type, and lay the groundwork for the minimum viable product (MVP) design.

36

After defining MVP, we conducted a proof of concept to ensure that it was possible to construct a multichannel system for interpreting considering the technical requirements of the Client. Next, we entered the prototyping stage, focusing on adapting the offline system familiar to interpreters to the web realm. We built a platform that can host online conferences with an unlimited number of listeners from a multinational audience without any language barriers.

Business benefits

Our solution addressed the main business challenge of creating an online system reminiscent of offline interpreters' equipment with multiple audio channels for different languages. Theplatform was successfully launched to the market. Other professional interpreters have used the tool and appreciated its intuitive design and functional effectiveness.

TECHNOLOGIES
Ruby 2.7.2, Rails 6.0.3.4, PostgreSQL 14.2, Kurento media server, rabbitmq, React 17.0.1, react-scripts, eslint, stylelint, prettier

SERVICES
Business Analysis, Design, Development, Quality Assurance, Project Management

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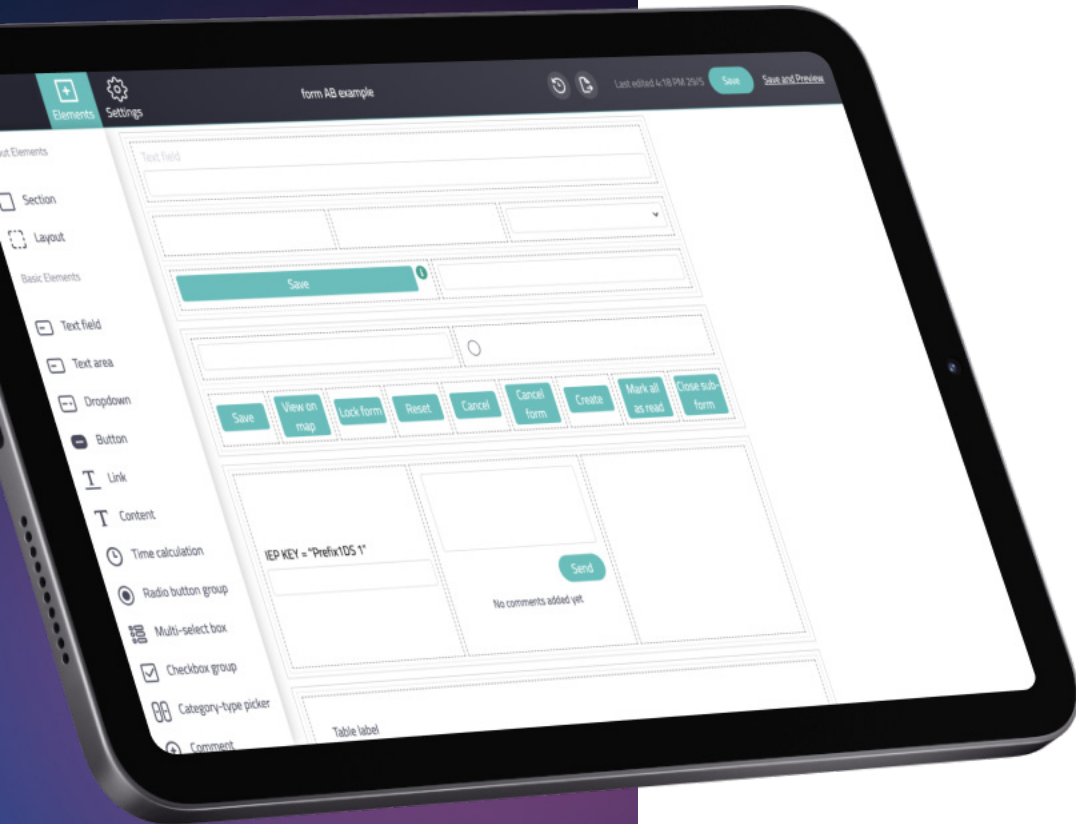
Web   IoT   USA, Israel

Form Builder Web App for the Leader in the Incident Management Market

Business challenge

The Client is a company that offers physical security and incident management solutions. It has established itself as a significant player in the market through its software solution. It is a widely recognized and comprehensive security management system that serves as a centralized platform for handling incidents and managing security operations. The software is installed on local servers and caters to various industries, including transportation, critical infrastructure, and city surveillance.

Main Challenge

The individuals responsible for incident management, known as operators, utilize the Client's application to fill out specific forms when an incident occurs. These forms are custom for different industries and companies. However, creating custom forms required the support team to collaborate with software developers. This process consumed valuable time and company resources, as the developers had to dedicate their efforts to building forms for othe companies.

The primary business challenge entailed developing a platform that would enable the creation of forms without the need for software developers' involvement.

Solution

We developed a web application called Form Builder, which enables users to create customized forms using the 17 highly customizable UI elements. The forms offer various validation options, conditional logic, flexible layout customization, and seamless integration with the Client's incident management platform.
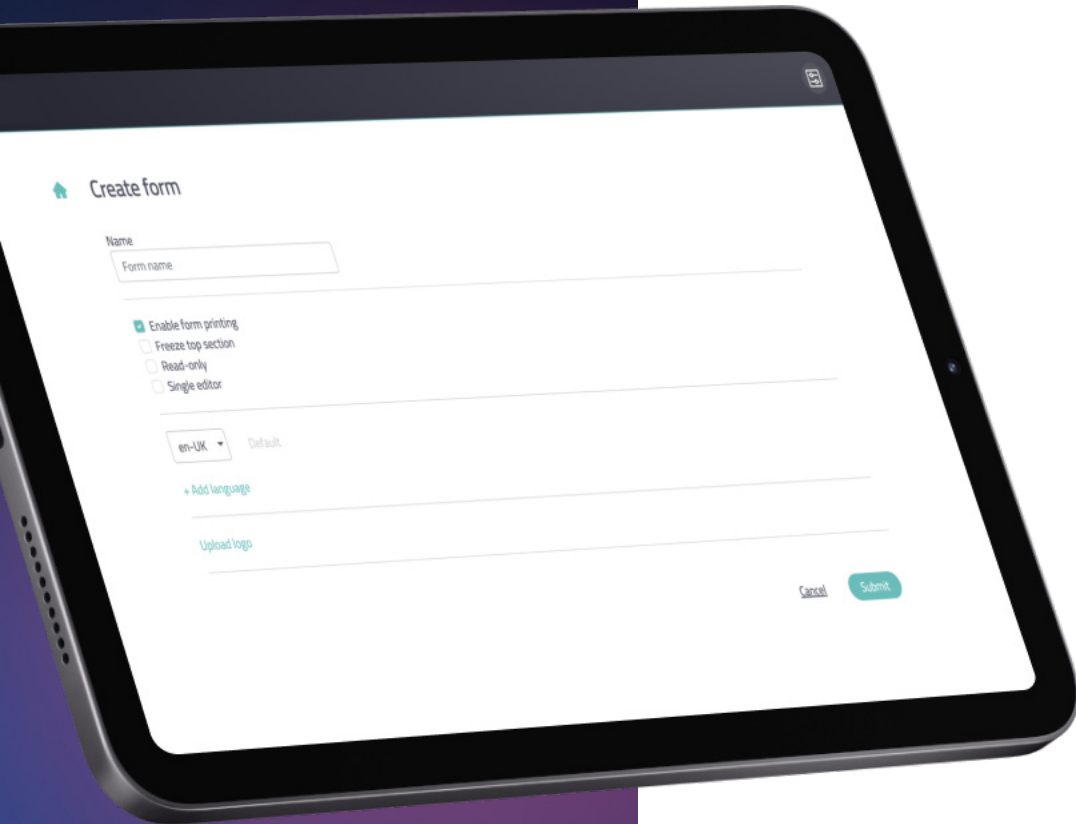
The Form Builder solution underwent two development phases. In Phase 1, the core functionality was established, allowing users to create forms using a wide range of UI elements. Integration with the Client's system enabled seamless data exchange, while conditional logic provided dynamic form behavior. Phase 2 empowered the Form Builder with additional UI elements, advanced formatting options, and a setting module for customization. Subforms and dynamic sections enhanced form flexibility, and the comprehensive knowledge transfer process ensured smooth maintenance by the Client's in-house team. The Knowledge Transfer Phase went so well we use this case as an example of a knowledge transfer process in our projects.

Business benefits

We successfully delivered an extremely flexible system for form building, surpassing Google Forms in terms of capabilities. Qognify began implementing the solution for their Clients without the need to involve third-party companies or in-house developers, resulting in significant cost and time savings.

This case serves as a testament to the success of our expertise and strive for long-lasting cooperation. We are proud to have delivered a solution that has made a substantial positive impact for Qognify and its Clients.

TECHNOLOGIES
Node.js, Express, Microsoft SQL Server 2016, Objection.js, React, Redux

SERVICES
Business Analysis, Design, Development, Quality Assurance, Project Management

Web   IoT   Europe

A Platform for Vital Farm Animals Signs Monitoring

Business challenge

The Client is a MedTech start-up from the EU that aims to enhance veterinary medicine by helping veterinarians and farmers easily get an overview of an animal's ECG, respiratory, pulse, and other supporting data for diagnoses.
They developed a wearable device for this purpose. The greatest value of the device is that it replaces various medical devices, which sometimes need to be connected to farm animals, even with surgical involvement. Unlike these devices, the Client's device is small, binds to farm animals on a special bandage, and doesn't prevent it from everyday activities.
The Client addressed SumatoSoft to help with building a web-based IoT platform for data visualization and analytics.

Solution

Together with the Client's experts, we have developed an Internet of Things platform for data gathering, visualization, analytics, diagnosis and calculation. These data are recorded in a raw format from the sensors and are sent over to the web as Mqtt-Messages.
The app has the following functionality:

Admin panel

✓ companies accounts management (clinics or farms);

✓ users and roles management within a company;

✓ statistics overview about users, recordings and devices;

40
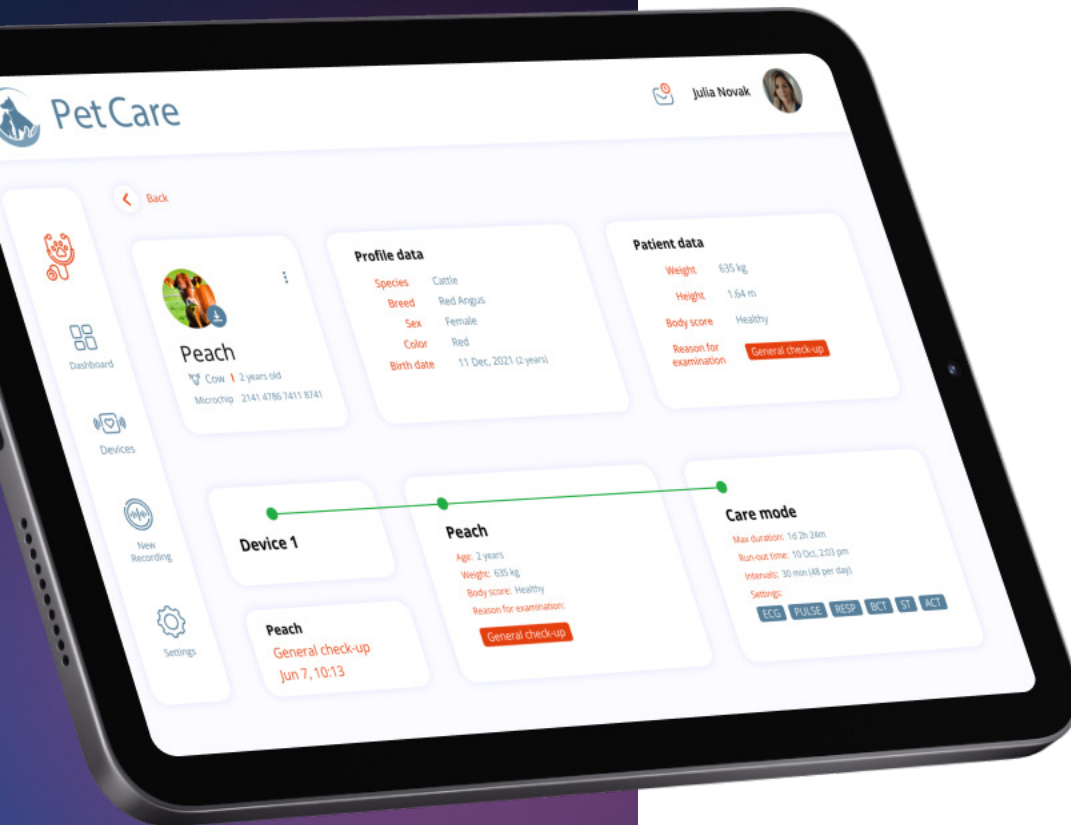
✓ products management. Products are to be issued to company accounts;

✓ invoices management and external invoicing system integration;

✓ base stations and devices management;

✓ raw data filtering and export;

✓ notifications system.

Users area

✓ view learning tutorial;

✓ create, view and manage patients;

✓ visualize the data in forms of charts and tables;

✓ add notes, snapshots, markers on charts;

✓ share patients, recordings, notes with other users;

✓ view notifications and timeline events.

Business benefits

The Client has already launched the product to the market and sells devices to clinics. The project is highly appraised by the medtech community. The Client was selected among the top 25 business plans in the venture competition 2016, and then became a winner in «Swiss Startup Technology Team 2017» event.

TECHNOLOGIES	SERVICES
Ruby, Rails, Postgres, Websockets, Capistrano, Git, Bluemix IoT, Eye, Nodered, Sidekiq, Redis, React, ES6, Webpack	Business Analysis, Design, Development, Quality Assurance, Project Management

Mobile   IoT   USA

Mobile Application for Thermostat Remote Control

Business challenge

Our Client, a reputable US thermostat manufacturer, specializes in constructing energy-efficient thermostats that can be conveniently managed through a mobile application that was released in 2019. The initial version of the app was plagued by numerous bugs, an outdated design, and absence of any technical documentation, resulting in low ratings on both Google Play and the App Store.

Our task was not to give the app a fresh start, but rather to add additional features. The primary project goal was to implement the OpenADR program and obtain Energy Star certification.

Solution

We began with OpenADR implementation since this is a necessary step for the Energy Star certification. We modified the app to support OpenADR communication, which involves receiving and responding to OpenADR signals. To get Energy Star certification, we configured an instance that gathers the data about thermostat work and generates the appropriate reports. At this point the first phase of collaboration was finished.

During the second phase we agreed upon the development of some additional activities like integration with Google Home and Alexa, integration of Looker Studio, writing an app documentation, geofencing development, code refactoring. We also engaged DevOps in the development to improve app infrastructure and set up appropriate testing and release processes.

Business benefits

The initial goal was achieved: the Client obtained the Energy Star certification. Additionally, the app received a significant new feature: voice control. Furthermore, we went the extra mile by initiating app refactoring and implementing DevOps practices. These efforts resulted in a more stable, bug-free application, as well as reduced costs associated with app maintenance overheads.

TECHNOLOGIES
React Native, Node.js, AWS

SERVICES
Business Analysis, Development, Quality Assurance, Project Management

Mobile   IoT   USA

The Integration of the Internet of Things Into the Mobile Application

Business challenge

The Client is a prominent research organization based in the USA, dedicated to studying and improving cognitive performance and well-being through the analysis of coherent Heart Rate Variability (HRV) patterns. They have developed a sophisticated HRV measurement device and a corresponding application that allows users to track their HRV patterns and coherence scores. When the Client approached us, they brought a broad scope of proposed enhancements to the table. We needed to thoroughly assess and understand their wide-ranging requests and, second, identify the most promising features that would bring substantial improvements to their application.

Solution

Our team identified the most promising feature for enhancement - the integration of smart lightbulbs. The idea behind this feature was to introduce a visual and immersive dimension to the application, enhancing the user experience.

The lightbulbs were designed to change their color in real-time, reflecting the proximity of the user's coherence score to the ideal state. This way, users could instantly gauge their progress and achieve an improved understanding of their coherence status through a simple, yet intuitive visual representation.
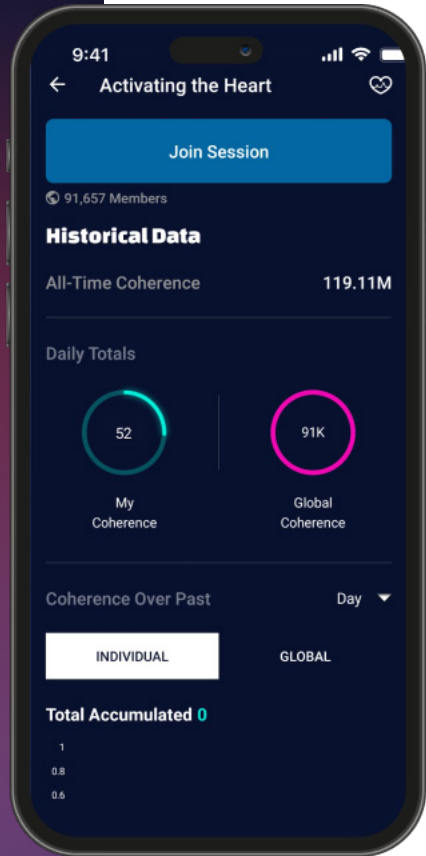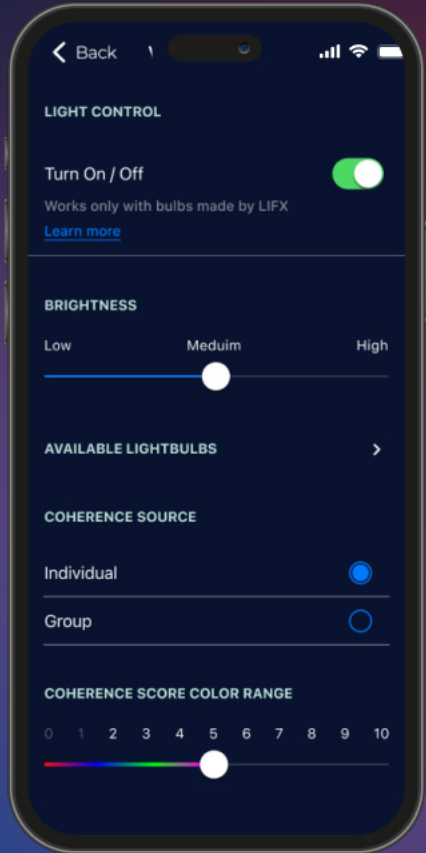
Business benefits

SumatoSoft successfully modified the Client's application and deployed the integration with smart lightbulb to both the Google Play Store and App Store.

TECHNOLOGIES
Kotlin, Swift

SERVICES
Business Analysis, Development, Quality Assurance, Project Management

SUMATOSOFT

Mobile   IoT   China

IoT Apps for Controlling an Air Conditioning System

Business challenge

The Client is a multinational electronic company that manufactured a new air conditioner. We were commissioned to develop an application for this air conditioner to facilitate its market entry. There was a liaison between a manufacturer and us.

We were responsible for the front and backend parts of the project. The biggest challenge was establishing a seamless connection between the air conditioner and the Android devices because of the variety of versions and gadgets Android has.

Solution

Simple and neat native iOS and Android applications according to the requirements. Apps connect directly through BLE to the firmware of the AR system and allow to control and manage the environmental conditions.

We used native methods to establish a connection for iOS and Android app versions. The biggest challenge was establishing a connection for the Android app because of the variety of versions and gadgets Android has. However, we prevailed in this task.

We had a 2-week business trip in China at the start of the project. The trip came to be very productive. Our team and the liaison's team had a shared working space, allowing us to solve any issues quickly.

46
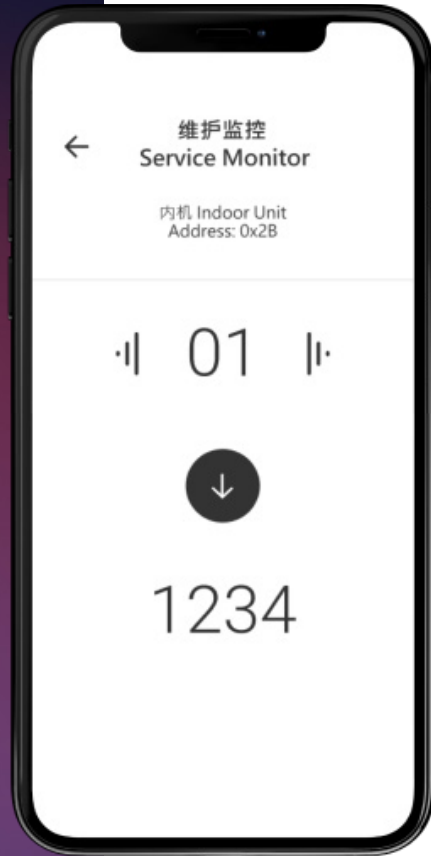
We also officially released the iOS app's version on the app store. The Android version was supposed to be launched on Chinese app marketplaces by the liaison.

Business benefits

SumatoSoft successfully modified the Client's application and deployed the integration with smart lightbulb to both the Google Play Store and App Store.

TECHNOLOGIES
Apple UIKit, Foundation, CoreBluetooth, Cocoa Pods, Kotlin, AppCompat, Android BLE SDK, ViewModel, LiveData, Data Binding, Navigation, Room

SERVICES
Design, Development, Quality Assurance, Project Management

SUMATOSOFT

IoT   Mobile   North America

Real-time blood sugar monitoring app

Business challenge

Our Client manufactures under-the-skin blood sugar monitoring sensors for individual consumers. The Client aimed to make their sensors market-ready by pairing them with a user-friendly mobile application for real-time blood sugar monitoring.

Solution

During the initial stage of the project, we dove deep into a comprehensive requirements analysis, engaging not just with the technical specifications of the Client's existing sensor technology, but also with the real-world needs and behaviors of the intended end-users. This dual focus ensured that the eventual application would serve as a bridge between the sophisticated sensor technology and the end consumers, making the technology both accessible and actionable for everyday consumers.

The application connects to the sensor via Bluetooth and gathers data about the blood sugar level in real-time.

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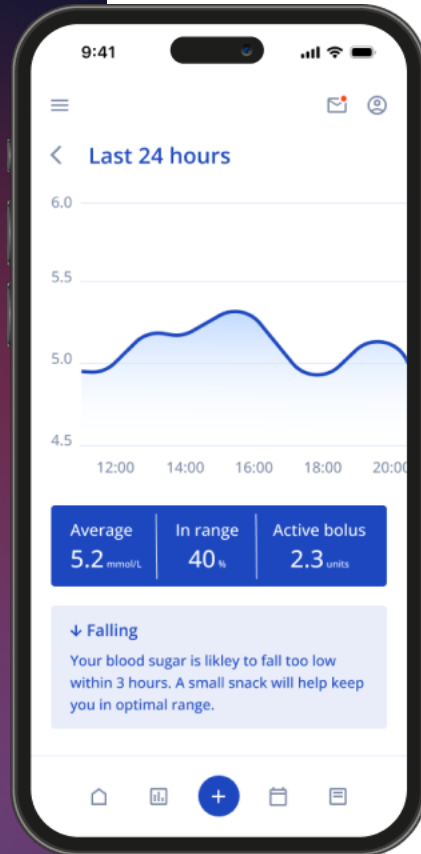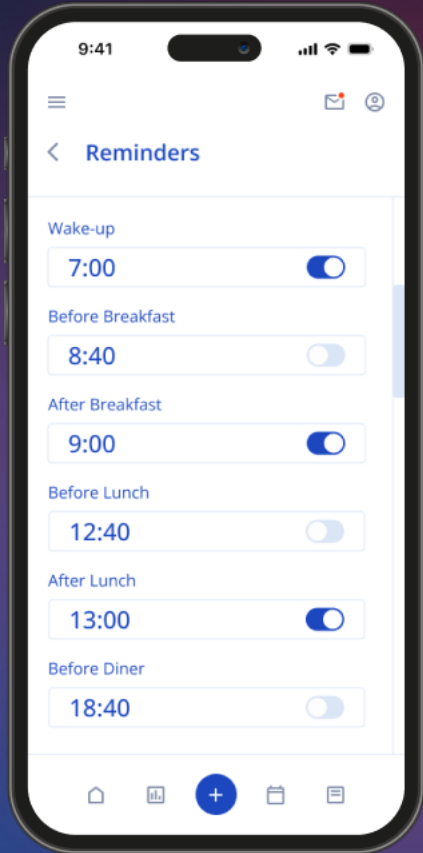
Special features

✓ **Real-time alerts** – instant notifications for high or low blood sugar levels, prompting immediate action for insulin administration.

✓ **24/7 monitoring and reporting** – the sensor continually tracks blood sugar levels, and the app receives and processes this information in real-time, providing a 24/7 monitoring system for the user.

✓ **Graphical data visualization** – simple graphs representing fluctuations in blood sugar throughout the day, allowing for quick comprehension.

✓ **Onboarding tutorial and FAQ** – built-in guides and FAQs for a smoother user adoption process, reducing the need for customer service interactions.

Business benefits

The app is successfully operating in the market, receiving positive user feedback and high engagement rates. The Client is extremely satisfied with the results and our ongoing partnership.

TECHNOLOGIES	**SERVICES**
React Native, Node.js, MQTT, AWS	Business Analysis, Design, Development, Quality Assurance, Project Management

SUMATOSOFT

IoT   Mobile   Europe

Health monitoring mobile app for personalized wellness programs

Business challenge

The Client approached us with an idea to introduce a new device which helps to improve physical well-being and maintain an active lifestyle by measuring heart rate and blood pressure during different activities. The Client needed a mobile application to enter the market. We were supposed to build such an application and integrate it with the monitoring device.

Solution

The app features two main sections:

✓ A dashboard - this is where users can see various health statistics at a glance.

✓ Well-being programs - in this section, users can choose from different wellness programs to participate in.

When a user opts to start a program, the device begins real-time monitoring of their pulse and blood pressure for the duration of the workout. Upon completion, the app analyzes the data, taking into account the user's height, weight and age.
We chose React Native to accelerate the time-to-market, cut costs, and simplify future app maintenance. Throughout the development process, we actively tested all features on a real device provided by the Client.
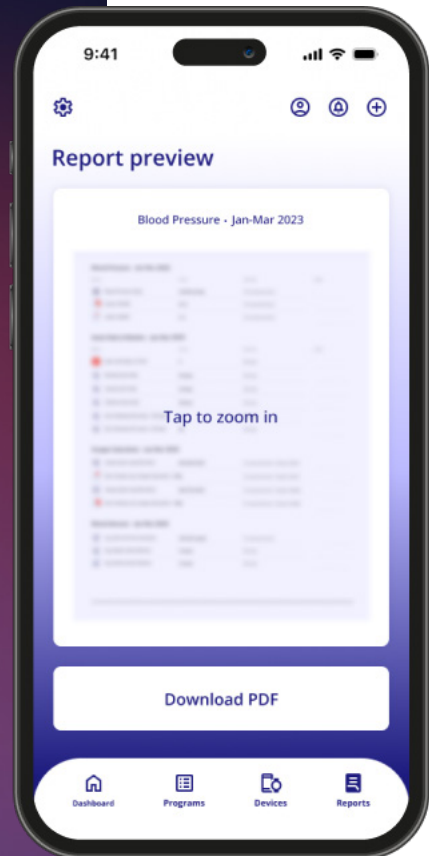
Special features

✓ **Device connectivity** – the app supports both Wi-Fi and Bluetooth.

✓ **GDPR-compliant security** – all user data is encrypted and stored in accordance with stringent GDPR guidelines to ensure maximum data security and patient confidentiality.

✓ **Health alerts** – Sends alerts if metrics deviate from the normal range for the user's age and weight.

✓ **Automatic and on-demand measurements** – the app offers periodic data fetching and event-triggered monitoring.

✓ **In-app journaling and easy sharing** – users can effortlessly view their health trends for month, week, year and, with just a few taps, share all measurements in a PDF format with healthcare providers.

✓ **Categories** – the app features five program sections: breathing, meditation, home exercise, gym training, and running.

✓ **Workout history** – users can view their completed workouts along with the pulse and pressure parameters from each session.

Results

The application is successfully promoted among users.

TECHNOLOGIES	SERVICES
React Native, AWS, Bluetooth API, WiFi API, HIPAA-compliant encryption	Business Analysis, Design, Development, Quality Assurance, Project Management

SUMATOSOFT

Our contacts

Headquarters

One Boston Place, Suite 2602
Boston, MA 02108, United States

Other ways to get in touch

info@sumatosoft.com

sumatosoft.com