

Main symptom

Fever

Concomitant symptoms:

Suspected COVID-19

 yes no

Cold/influenza infection

 yes no

Cough

 yes no

Throat/pharyngeal pain

 yes no

Breathing problems

 yes no

Earache

 yes no

Chest pain

 yes no

Facial pain

 yes no

Headache

 yes no

Urinary tract problems

 yes no

Stomach pain

FINISH >|

*** Breathing problems: Duration**

Since when have there been breathing

 Since today 2-7 days More than 7 days*** Breathing problems: Strength**

How serious are the breathing problems?

 Mild (1-3 out of 10) Moderate (4-7 out of 10)*** Breathing problems: Course**

Are the symptoms quickly getting worse?

 No Yes Unclear*** Bluish skin (cyanosis)**

Is there a new bluish discolouring of the fingers, toes or lips?

 No Yes Unclear*** Fever: Duration**

For how long has there been a fever?

 Since today 2-3 days More than 3 days*** Fever: Height**

How high is the temperature?

 Lower than 35.1°C 35.1-38.0°C*** Throat/pharyngeal pain:**

For how long has there been

 Since today 2-7 days More than 7 days*** Breathing problems:**

How quickly did

 Suddenly

ArtSoft

— consult —

The Art of Software Development

Web applications that streamlines and optimizes the process of triaging patients

Key Information



Industry:

Medicine & Healthcare



Project duration:

4 major versions
spanning over 9 years (Ongoing)



Team Size:

11 specialists



Technologies:

- Java, Spring Framework, Spring Security, JPA, Vue
- Databases: Microsoft SQL Server



Services:

- Analysis
- Architecture and design
- Development
- UX/UI design
- Testing

Highlights

- A web application that **enhances and streamlines** patient triaging processes.
- The innovative application required a thorough comprehension of the connections among symptoms, parameters, values, and potential illnesses.
- ArtSoft Consult played a major role in developing and implementing algorithms utilizing **artificial neural networks** and associated data models.
- The application is embedded in other existing software; an API has been created for customers that have their own front-end.
- The **security** of the system is one of the major requirements.
- Systems are audited by third party **Swiss security experts**.



ArtSoft Consult is technology partner for this client

Product Overview

The software supports both laypersons and medical professionals in the rapid assessment and documentation of health problems and helps users to take appropriate measures.

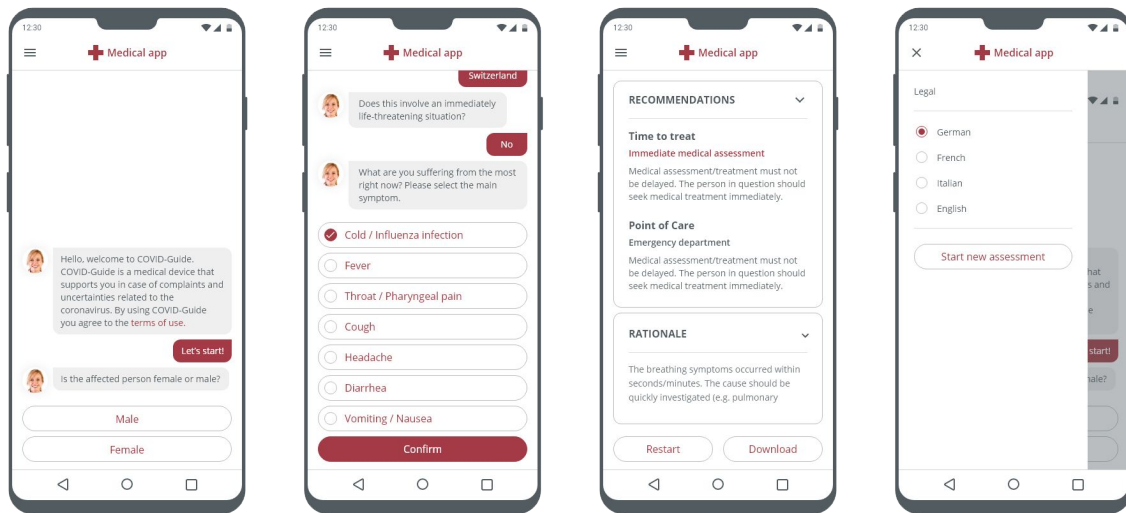
Requirements

The clients' vision was to develop a **cutting-edge** software that streamlines and optimizes the process of triaging patients, ultimately improving overall healthcare delivery and patient outcomes.

Challenges

The **innovative application** required a deep understanding of the relations between symptoms, parameters, values, and corresponding possible illnesses.

The main challenge of the project was in the **analysis, architecture, and design** phase when the dependency between the analyzed concepts was assessed, and the data model and algorithms were designed to assure high accuracy of the answers provided by the system.



Provided Solutions

ArtSoft Consult made a significant contribution to the build and implementation of the algorithms based on **artificial neural networks** and corresponding data models that represent the core of the system.

Our team provided a scalable web-based application with an **intelligent algorithm and data model** to support medical decisions. The entire development was performed in our office, building a **robust** system successfully used in several medical facilities in Switzerland, Germany, Italy, and Kenya.

We provided **extensible architecture** and innovative ideas throughout the project's entire lifecycle.

A more detailed presentation of the product [can be consulted here](#).

The screenshot shows the 'Assessment Start Page' for SMASS. The patient is identified as a female aged 14-49 years, currently in pregnancy at 14-27 weeks. The page is divided into three main sections: 'Patient information', 'Patient characteristics', and 'Pre-triage'. The 'Patient information' section includes a case number (5b4873f3-9523-4686-8c3f-19bbc2a59e2) and a text area for patient information. The 'Patient characteristics' section contains dropdown menus for sex (Female), age (14-49 years of age), pregnancy/breastfeeding status (Pregnancy), and week of pregnancy (14-27 weeks). The 'Pre-triage' section includes questions about immediately life-threatening situations (No), fetal movements (Yes), and the nature of fetal movements (Normal, as usual). Navigation buttons for 'FINISH' and 'NEXT' are visible at the bottom.



Andreas Meer, MD, MHIM, CEO In4medicine Ltd.



“ Client Words

“[...] I have known ArtSoft Consult for 15 years now and have consistently been impressed by your professionalism, expertise, and dedication to delivering top - notch software solutions. Your team comprises talented software developers, engineers, and designers who possess deep knowledge and expertise in a wide range of programming languages, frameworks, and development methodologies. They stay updated with the latest industry trends and technological advancements, which allows them to provide innovative and cutting-edge solutions. [...]

[...] Throughout our collaborations, ArtSoft Consult has consistently demonstrated their ability to deliver high-quality software within agreed-upon timelines and budget constraints. Your commitment to timely delivery and your proactive communication makes ArtSoft Consult a reliable and trustworthy partner. [...]”

Let's get in touch

ArtSoft Consult is a trusted partner in the IT industry, providing tailored solutions to address your unique business challenges.

With our proven expertise our team delivers innovative solutions and development services.

Drawing from years of experience and industry insights, we deeply understand this industry and we look forward to working with your business.

For more details on our services and team, please [contact us](#).



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