

case study -

# Advancing telemedicine by integrating a risk calculator in a mobile health app

Swift

Java

mongoDB

## Company

Healthcare Technology Startup

## Customer since

2022

## Goals

- ✓ Develop an interactive risk calculator to be integrated into a popular mobile health app
- ✓ Incorporate scientific algorithms for chronic disease risk assessment
- ✓ Deliver advanced functionality within a short time frame
- ✓ Create an intuitive, highly visual UI, ease to use by all ages

# The client

According to the National Institutes of Health, almost **75% of healthcare expenses in India are out-of-pocket** and are one of the important contributors to poverty in the country.

Additionally, the lack of regulation in the private sector has led to inconsistent quality of care.

To address this need, a Silicon Valley-funded healthcare technology startup based in India was interested in developing an **all-in-one wellness mobile app for simplifying and improving health management**.

The app would provide intelligent insights and connect an ecosystem of healthcare providers to manage chronic diseases. However, to provide maximum value and enable rapid access to care, they needed to develop **an integrated risk calculator** allowing users to self-assess their risk of chronic diseases and point them in the right direction for accessing preventative care.

**2M+**

downloads

**4 months**

project delivery

**24/7**

monitoring

## The crucial role of the risk calculator in the project's success

Given the competitive climate of the healthcare technology industry, the risk calculator had to be implemented quickly, but the company didn't have the expertise in-house. They turned to Resolute Software for help.





the challenge -

## Finding high-quality mobile development talent

Developing the functionality for the risk calculator required high-caliber development talent that is scarce in the region where the company is based.

The company learned about Resolute through mutual connections and quickly discovered that the team's expertise was exactly what they needed. Resolute entered a 4-month agreement with the company and delivered the risk calculator.

**"The CEO was struggling to find high-quality mobile development talent. Not only did the module have to be developed in a couple of months, but it also had to be highly interactive and easy to use."**

— Veli Pehlivanov, CTO at Resolute

## Android and iOS development

Resolute's mobile team developed versions of the calculator for Android and iOS simultaneously using native mobile development tools, then performed integration and testing, all in under 4 months, to meet the client's tight production deadline.

### Technologies used in development

The module was developed in Java for Android and Swift for iOS, with the backend development in MongoDB and a REST API.

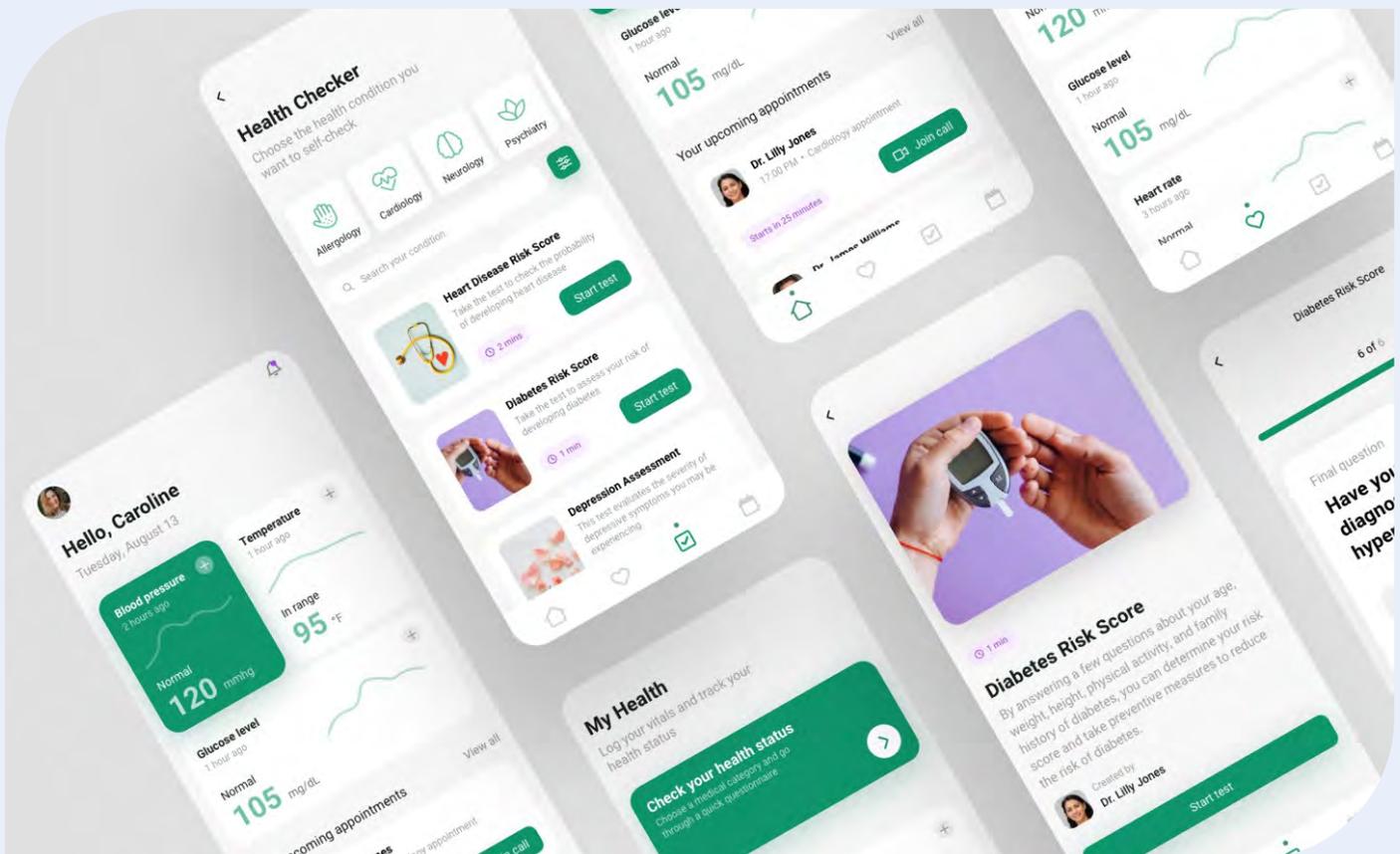


### Dynamic UI and consistent look and feel

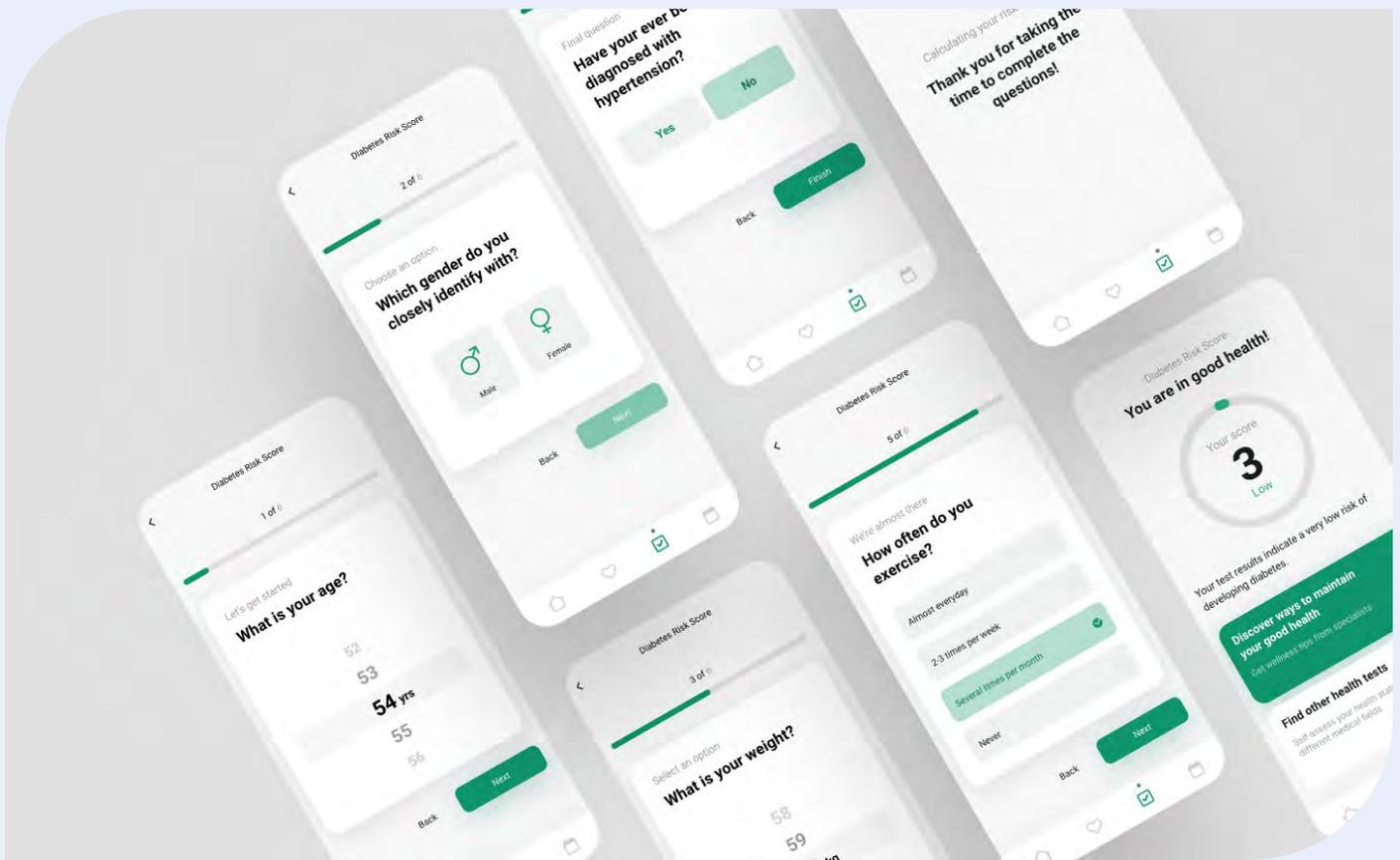
Requirements included a primarily visual, easy-to-use UI and a consumer-grade, Wizard-like app experience. Additionally, the app had to comply with strict healthcare regulations.

# Technical challenges require Resolute's mobile and design expertise

Since many of the app's users were over 50, the UI had to make it easy to answer questions about health and risk factors. This required a significant amount of customization due to the framework's limitations. The calculator's interface features large sliders, selectors, and text, and the Wizard leads users through a series of questions to help them quickly enter the necessary data. A clean and non-distracting UI makes the experience painless and even enjoyable for users of any age to enter their health information.



## the solution –



Once entered, users' data is analyzed by advanced algorithms developed by the client and integrated into the app to calculate the probability of developing a variety of chronic diseases, such as diabetes, atherosclerotic cardiovascular disease (ASCVD), kidney disease, depression, and anxiety.

For example, users enter their age, weight, sleep patterns, smoking status, total cholesterol, and other information about their health. The data they enter is tailored to the various assessments, each with its algorithm. While the resulting risk score isn't a diagnosis, it's a strong risk indicator.

Upon calculating a risk score, the app recommends next steps, such as scheduling a consultation with a healthcare professional. Integrated telehealth functionality makes it easy to receive care, even for those living in more remote areas of India or lacking transportation to and from a physical doctor's office.

## Over 2 million downloads for quick, easy self-assessment and healthcare access

In a country where healthcare is often difficult to ascertain, this innovative app with the Resolute-developed risk calculator offers a first step toward digital self-assessment and care, along with access to expert advice relevant to the individual, based on personal history and health needs.

To date, the app has been downloaded by over 2 million iOS and Android users, connecting them to healthcare professionals and inspiring them to take control of their health. Moreover, with user-submitted data at their fingertips, physicians and specialists can quickly offer more accurate and helpful recommendations and care.



**2M+**

downloads



**“Using the app, people can subjectively assess their own risk of chronic diseases instead of waiting for symptoms to surface, which empowers them to take a proactive approach to improve their health. By providing a means of self-assessment combined with near-immediate access to care, our client is delivering an extremely valuable and essential service to people in the region.”**

— Veli Pehlivanov, CTO at Resolute

# Let's talk about your technology requirements.

Get in touch

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**Deloitte.**

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watch | Tech  
Fast 50



Business  
Professional  
Services

**Clutch** ★★★★★

People First  
Company Award  
2020 | 2021 | 2022

