

Case Study: An innovative way to maintain swimming pools and spas

Background



Digital Concepts Inc., a well-known engineering company, which manufactures and distributes electronic assemblies for worldwide fitness, decided to develop devices to measure the chemical composition of swimming pools and spas. The objective was to deliver devices which would permit individual homeowners to determine the right amount of chemicals needed to keep the water clean and in balance, and then to put the required chemicals into the swimming pools and spas.

The Challenge

Individuals who have in-home swimming pools and spas hire service companies to do periodic maintenance on the chemical composition of the water. The objective of Digital Concepts was to provide them with everything they need to measure the current chemical composition of their bodies of water, as well as guidance to do those maintenance tasks independently at any time.

The Solution

Digital Concepts designed and developed a test strip with the capability to measure the chemical composition of any body of water through colorimetric. To make this usable by homeowners, Digital Concepts needed a mobile App with the functionality to read the test strip using the mobile device's camera, then interpret the result and recommend the correct dosage of chemicals required to clean and balance the water.



Due to its lack of experience in mobile App development, Digital Concepts evaluated several companies specialized in software development for mobile devices with the ability to integrate a solution for its residential customers. Software Next Door demonstrated the capability to deliver high quality mobile Apps native to iOS and Android at a competitive cost. In addition, Software Next Door's staff showed an understanding of the business requirements, an essential ingredient to develop and implement the high-end quality solution for this marketplace.



Key requirements for the solution were that the mobile App needed to integrate with two 3rd party components: an engine that takes the photograph of a strip from the mobile device's camera to determine various chemical components (alkalinity, hardness, levels of chlorine, etc.), and a physical device to pump the exact amount of chemicals to the water for optimum results.

Digital Concepts also required a web application that allows it to feed the mobile App with various configurations which can be updated at any time, without the need to re-compile and distribute a new version of the mobile App, as well as manage notifications and reminders for users.

Software Next Door timely delivered the mobile App in native iOS and Android versions and the companion website for this solution within budget. The engineering company deployed these solutions to homeowners and experienced very positive reactions in the marketplace.

Results with Software Next Door

Overall, with this innovative solution, residential users of the mobile App are able to perform maintenance themselves, realizing substantial savings and making the process more convenient.

The Head of Customer Support for supplying of the solution, had this to say: "Software Next Door was a key partner in our developing and deploying this innovative, advanced tech solution. Being able to work with their development team, which was quite strong technically, very stable and extremely flexible, to tackle our solution's requirements with high levels of time pressure was a critical factor to the success of our solution. Of particular importance was Software Next Door's ability to adjust to continuous feedback from our product managers on the needs of the marketplace for effective deployment of our solution to run on customer mobile devices, and provide customers with information from our website"

