

INTETICS DEVELOPS MOBILE APPS FOR LABORATORY TO AUTOMATE MANUAL WORK



OBJECTIVE

To develop mobile applications to automate and streamline client monitoring and maintenance services.

CHALLENGE

Intetics client, a global provider of precision instruments and services, needed mobile applications for tablets to automate and streamline monitoring services. The mobile applications were intended to reduce the manual paperwork. In line with that, the applications had to comply with strict environmental requirements, like no internet connection, offline operation, and synchronization with the server. Intetics was chosen based on its expertise in mobile applications development.

SOLUTION

The Intetics team held the analysis of the client requirements and offered to run the development using cross-platform development technology. The technology allowed creating the applications with the same code base for two platforms, Android and iOS. This significantly reduced

development time and optimized further maintenance efforts.

The project consisted of the prototyping and development stages. Firstly, the team developed the prototype to test the app's usability. As soon as the client approved the visual prototype, the team proceeded the development of applications.



The Intetics team had two major challenges on the project – data synchronization and availability of offline operation. Responding to the first challenge, the team created the engine to synchronize the data collected on the mobile devices with those on the server. The developed scheduling engine helped administrators to assign inspection and maintenance tasks on the server and resend them to user's mobile devices.

To handle the second challenge, the team established the connection among devices through the Bluetooth interface. This ensured the uninterrupted

INTETICS DEVELOPS MOBILE APPS FOR LABORATORY TO AUTOMATE MANUAL WORK

measurements sending among the devices and minimized the possibility of errors caused by manual input.

The Intetics team developed two applications for the client.

Balance Calibration Mobile Application

The Balance Calibration mobile application was the asset documenting calibration tasks of the precision instrument. Due to the usability testing held effectively during the prototype stage, the lab personnel managed

to use the app and performed services without extra training. The in-app guidance was clear.

Lab Assistant Mobile Application

The Lab Assistant mobile application was developed to automate the weighing processes as per specific set of rules. The app connected wirelessly to balances and automatically read weight value of the components. The value was verified against the requirements and recorded. The results synchronized with the server later.

RESULTS

Intetics created highly-specialized mobile applications to help automate and streamline monitoring and maintenance services for lab personnel. The apps' implementation saved time on performing manual operations and minimized human errors. Using the cross-platform technology in the project significantly saved time and costs during the development and product.