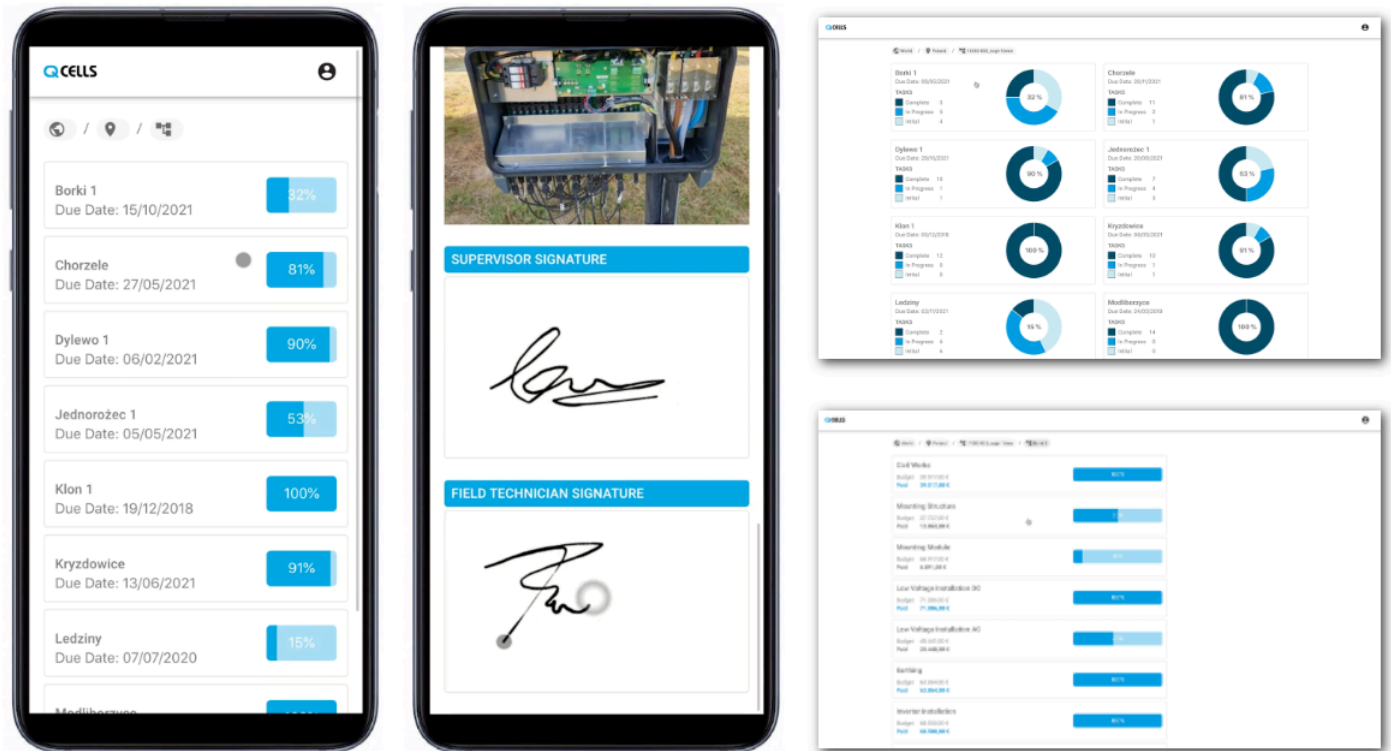


Project Tracking Application Development

Prepared for Q-Cells by Santiago Ferreira



Objectives and Context

To develop a custom-made Web Application and Server Infrastructure for Q-Cells in order to:

- Improve and streamline Q-Cells' supervising, managing and showcasing of projects
- Provide essential time-saving functionality for Construction Managers, Project Managers, Sales and Clients

The initial set of proposed features for this application is included in the form of demo videos. These demo videos are a result of collaboration with Engineer Victor Abarca. We analyzed and designed solutions that will improve current workflows at Q-Cells and ensure seamless integration.

This custom-made application will be tailored to Q-Cells' specific structure and needs, in contrast to generic software which often presents unpredictable complexities and insufficient features, thereby leading to greater operational expenses.

Deliverables

Q-Cells will receive the following assets and services from developer

- Web application for mobile, desktop and other devices featuring
 - Different functionality for different roles based on login (see below)
 - Access to application from any device (mobile, desktop, smart tv, etc.)
 - Standard, state of the art client technologies (React)
- Fully managed cloud-based server infrastructure
 - Inexpensive, reliable, secure and scalable
 - Unlimited data and number of users
 - Built with standard, state of the art cloud technologies (AWS)
- Analysis of requirements and design of optimal solutions in collaboration with Q-Cells
- Training, documentation and technical support
- Improvements and addition of new features as needs arise
- Source code and access credentials
 - Q-Cells will have full rights (except re-selling) to access, use and modify the application and server with or without original developer

Application roles (based on login)

The application will adapt to the user's login, enabling different functionality depending on who is logged in

- Construction Manager (Supervisor)
 - Keep track of all assigned projects
 - Complete, sign, verify and generate PDF protocol documents
- Project Manager
 - Keep track of all assigned projects
 - Cross-check budget payments with protocol completion status
- Sales and Client Role
 - Showcase projects
 - Display photographs and other files per project
- Admin Role
 - Create protocol templates (worksheets)
 - Create new projects
 - Modify projects
 - Create and modify users and roles

Schedule

Months 01 to 02

Analysis, requirements gathering and initial development

- Meetings with Q-Cells team to gather and fine tune initial set of features
- Creation of documents summarizing and detailing selected features
- Initial stages of development

Months 03 to 04

Development of testing version of application (alpha)

- The alpha version of the application will feature a limited feature set and is designed for testing by selected persons and teams.
- During this process, requirements can be refined, based on experience of using the application on the field.

Months 05 to 06

Development of stable version of application (beta)

- The beta version of the application will feature the agreed upon full set of features.

Month 07

Integration by the whole company

- The last month will be dedicated to introducing the application to the rest of the company.
- Extra features for future development (for example, integration with internal systems) can be requested during this period.

Months 08 and Beyond

Support and development of new features

- Depending on the need of Q-Cells, new features can be added as requested.
- Technical assistance and support

Pricing

The pricing is calculated on a freelance basis following standard rates for a part-time Full Stack Software developer position as follows.

- 4.500 € / month (includes 20 hours / week by developer).
 - Equals to approximately 50 € / hour, which is a discounted rate for 7 months package.
- 31.500 € Total for the completed product (paid in monthly increments over 7 months).
- 65 € / hour for extra services not included in agreed upon 7-month package.
- Costs after seventh month, for optional new features and other services, will be calculated using same pricing rubric as above.

Cost Benefits

- Unlimited data and number of users
- Seamless integration: The application will be custom-built to adapt to Q-Cells processes. This will save the company time and resources, in contrast to using generic software which typically introduces unforeseen complexities and insufficient feature sets.
- Q-Cells will have full access (except re-selling) to source code and server credentials. This guarantees that Q-Cells can continue to expand and maintain the application with or without the original developer.
- Inexpensive pay-as-you-go server technology (AWS): This is the server technology that companies like Netflix and Airbnb use. However, since it is pay-as-you-go, if the server is used minimally, the monthly fees will be close to zero.

Background

[linkedin.com/in/santiago-ferreira-dev](https://www.linkedin.com/in/santiago-ferreira-dev)
santifer1@gmail.com
+49 151 5604 3706

- 10 years of experience developing software for leading technology firms in the United States and Germany
 - Lead team in the design and development of assessments web application (ETS, CA&L – United States). This is the application used to take exams such as TOEFL and SAT worldwide.
 - Developed essential features on tight deadlines for mobile application used in retail stores (NewStore – Berlin).
 - Developed monthly subscription web application for freelancers and artists to share and charge for content online (Muse App – Freelancer, Berlin).
- 10+ years of experience in graphic and user interface design
 - In-depth knowledge of Adobe suite of applications, which I use to create documentation, manuals and other software support materials.
- Great communication and team leading skills
 - As a team leader I have worked with diverse departments in all aspects of software development, presentation and delivery.
- Education: Bachelor in Computer Science with Honors, University of Kansas (2012)
 - James K. Hitt Award for Outstanding Undergraduate Research
 - Keynote Address, Undergraduate Research Symposium

Technologies

I use standard and up to date technologies which guarantees my products work well and are easy to maintain.

- React, React Native, Typescript, GraphQL for web and mobile application development
- AWS (Amplify, AppSync, DynamoDB, S3, etc.) with Node.js or Python for server infrastructure development.

References

Jan-Oliver Pantel

Director, Demo Engineering at NewStore, Inc.

Hari Sampathkumar

Senior Technology Lead, STEP

hariprasadsampath@gmail.com

Magda Uribe

Senior HR Manager at NewStore, Inc.

muribe@newstore.com

Kyle Batson

Senior UX Designer at America's Job Link Alliance

shinka.design@gmail.com

Testimonials

"In addition to his excellent software development skills, I have known Santiago to be very meticulous in his approach to analyzing and solving problems. He always goes the extra mile to fully understand the needs of the customer and delivers high quality work. A very nice guy to work with and you can always rely on him to get the work done."

- Hari Sampathkumar, Senior Technology Lead, STEP

"Santiago is one of the most gifted developers I have worked with. His attitude is consistently positive. He brings curiosity, creativity, and enthusiasm to each challenge."

- Kyle Batson, Senior UX Designer, America's Job Link Alliance