XOOMWORKS TECHNOLOGY

Mondelēz International

Xoomworks Technology and Europe's largest chocolatier in targeted, product promotion campaign

About Mondelez

Mondelez International is an American multinational confectionery, food and beverage conglomerate. It is recognised as Europe's largest chocolatier.

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The Challenge

Mondelez needed to quickly plan and implement a large-scale promotion for a number of its products. As part of on-going seasonal operations, the company had developed a four-month advertising and product placement campaign across three thousand stores.

During its project planning and scoping phase, the firm envisioned that the most convenient and efficient method of implementing its plan would be to equip a number of identified personnel with either a tablet device or small screen laptop. Each person would be required to log into a web application that enabled them to create, implement, monitor and report on store visits, known as 'missions'

The Solution

The brief for Xoomworks Technology was to create a functional app, not for public consumption, which would present an intuitive interface aimed largely at planning, monitoring and reporting on store missions. Each mission would be located within a specific geographical sector of the country and would require a number of team members who would also be required to report on the progress of each mission by recording time spent at the stores.

To effectively manage each mission four roles were identified, namely: Administrator, Merchandiser, Salesman and Regional coordinator.

Like many web applications, the Administrator was to have permissions that give full control of the application including managing requests, generating reports or changing the main objective of the week.

The Merchandiser role was defined as the person who would be responsible for carrying out a mission, a specific set of instructions for a store to include commenting on store missions, recording time spent and generating reports in MS Excel and PDF format.

The Salesman role was identified as a role that could request time in the Merchandiser's calendar, in order to co-ordinate a visit to a store to carry out any one of a number of pre-determined actions appropriate for that store.

Finally, the Regional Coordinator role was created as an approver-type role where Salesman requests would be approved or denied. Additionally, the Regional Coordinator would have the ability to perform CRUD operations on a Salesman's request.

The solution was to build a web application which was compatible with all common browsers on tablets and small screen laptops. Since all client 'Merchandiser' users are equipped with Samsung Galaxy Tab 3 a responsive design was required. Bootstrap, a powerful, mobile first, front-end framework was employed to ensure that the application adjusts the layout appropriately to fit the tablet and laptop displays.

Apache Wicket and custom JavaScript components were used to create the page structure and events whilst the application itself was deployed on an Apache Tomcat web server sitting in a Linux environment.

Data persistence was managed by the Java Spring and Hibernate frameworks which operate on data stored in a MySQL database where all missions and users are stored in separate tables. Business logic in the app was managed by Java code also using Spring and Wicket Framework capabilities. All business rules were identified and defined by the client before being implemented by the developers.

To securely connect to the application, each user was issued with a unique username and password, and based on their role within the team, was able to see data or trigger actions specific to that role. The authentication and authorization process was managed by the Spring Security module which validates credentials and ensures that specific resources were accessed by users with the correct permissions.

Many documents and reports are generated by the application in Excel and PDF formats. For Excel spreadsheets, Apache POI is used to build and generate the file whilst PDFBox is used to build the PDF layout and content of the PDF documents. Both Excel and PDF reports serve two purposes, to provide access to offline data and to present data for statistical analysis.

This particular project is a classic example of Xoomworks Technology's ability to respond quickly to requirements and engage in a flexible and agile manner during development. Presented with tight deadlines and timescales the challenge of delivering on-time was very real. A standard Waterfall approach would not have been appropriate and most likely, unsuccessful. Many documents and reports are generated by the application in Excel and PDF formats. For Excel spreadsheets, Apache POI was used to build and generate the file whilst PDFBox was used to build the PDF layout and content of the PDF documents. Both Excel and PDF reports serve two purposes, to provide access to offline data and to present data for statistical analysis.

Working with Xoomworks Technology

"We worked closely with regular calls and meetings in order to deliver the expected result. The availability and proximity of the teams have been real added values. To summarise, it has been a real pleasure to work with you. You are really competent, available and friendly"

Delphine, Project Manager, Mondelez International

The Results

Xoomworks Technology realised from the outset that delivering this project on time was vital to the success of the business plan the client had devised for their product placement campaign. Using agile tools and methodologies, and crucially involving the client at every stage of development, the risk of poor design, or misrepresentation of the functional requirements was substantially mitigated.

Business: Delivered on time, the application was well received. As soon as the client deployed it to their business, a chain of events was set in motion that enabled a vital, seasonal product placement campaign also to begin on time. This had an immediate impact on their revenue stream by increasing sales of a number of their product lines across three thousand stores.

Campaign Management: Rather than implementing the campaign using more traditional methods, which would likely have been time consuming, the client's Regional Controllers were able to develop weekly missions for each merchandiser and update them on-the-fly.

Transparency: Progress for the entire operation could be monitored immediately upon updates being received in the application, while a suite of reports was available on demand to provide status reports and analysis.

User Adoption and Satisfaction: Given a simplistic UI and a pleasantly responsive UX, the uptake and acceptance from the client's non-technical Merchandisers, Salesman and Regional Controllers was quick, with virtually no training being required. The application saves time in planning and executing missions, allows for coordination of team activities and provides an overview of mission progress.

Cost and Time: Cost and time efficiencies are clear and immediate, tactical benefits of using the application. Long terms payoffs can be envisioned by utilising the application for similar campaigns in the future.