

SAP integrated Multilingual Workshop Management Mendix Application

Digital
Services

Success Story

Status quo

Client is a one of the leading manufacturing firm situated in Switzerland. A key element of the client endeavours is to optimize production with high efficiency and quality. Also, to establish a control over machineries and enable all stakeholders to fetch continuous updates with regards to the devices used for manufacturing, people working in the plant and workflow process. They wanted to eliminate all the long-haul by monitoring and accessing the system with one single application featuring shop floor management (SmartProd), that seamlessly integrates with SAP. The SmartProd application will help the stakeholders to manage their manufacturing plant data and system efficiently by sending and receiving updates. This will help in connecting respective parties to make timely decisions such dispatching the support team members to plant for fixing a manufacturing device which might impact the assemble line or even more important task in the case of any medical emergency required in the plant.

Project Overview

Indium leveraged Mendix to develop a SmartProd application which consisted of a multilingual smart operations and management platform, which can be used on the shop floor by operators and managers. This application was integrated with SAP on the backend, ensuring timely data synchronization with SAP, while featuring a simplified the user interface and facilitating continuous improvement process in Production. The SAP integration allowed the user to fetch details of the machineries and tracked all the updates from the stakeholders.

Business Challenge

- Create a versatile application that can work seamlessly in different environments such as Web Browser, Tablet and Smartphones, increasing the ease of access of the crucial information/ updates for the respective stakeholders to make timely actions or decisions

- The SmartProd application consisted of 34 modules to be developed, in a very short time duration. However, in the interest of stabilizing the errors in the manufacturing plant, the client had a genuine urgency to have SmartProd application built as rapidly as possible
- Build an application that can be efficiently used by the vital stakeholders such as Plant Mangers, Team Managers, employees, support team members etc.
- Develop the connectors for the SmartProd application to integrate with SAP, which forms their current backend system for production tracking

Solution

- Indium proposed the Mendix development in 2 Phases with 16 modules in Phases-1 and 18 modules in Phase-2 to effectively divide the tasks to meet the stringent timeline and quality standards
- Keeping in mind the latest technology options, Mendix 8.1.1 version was decided for the implementation. Integration to the SAP backend was accomplished using SAP Connectors

Business

Mendix, Product Development

Domain

Manufacturing

Tools

Mendix (cloud), PostgreSQL, SAP

Key Highlights

- Reduced reaction time of the support team for the triggered issues by 80%
- Productivity of the company increased by up to 40%
- Communication between the employees improved the efficiency and safety of the facility

- The application components were configured to support multilingual interactions. Operations in 3 languages - English, French and German, were supported
- Access restrictions were setup, with role-based user permissions, to match the user's respective responsibilities
- In-depth Mendix QA was followed throughout the process to ensure quality standards

Business Impact

Robust Application Development:

Developed a robust application which handled crucial alerts triggered in case of emergency issues caused while working in the workstations. The system reduced the reaction time of the support team for the triggered issues by 80%

Availability

Having a cross-platform Mendix application available on web browser, Tablet and Smartphones enabled all stakeholders to get the latest updates constantly from the plant floor, thus improving productivity by nearly 40%

Communication

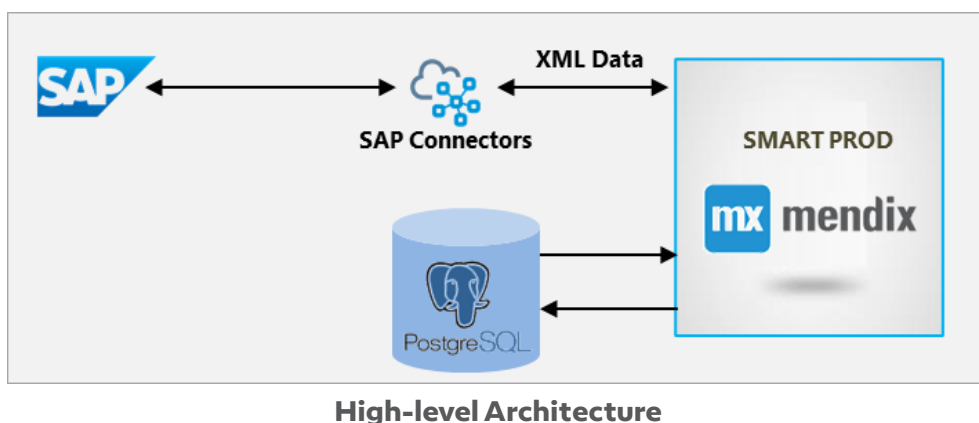
Communication amongst the Plant Managers, Team Mangers, Support Team, Machine Operating Employees and Labor Employees was drastically improved which had a positive effect on the efficiency and safety of the facility

Attrition

The attrition rate of their plant employees of all levels came down by 12 % which came as surprise positive effect due to efficient functioning of the SmartProd thus creating a good work environment

Production

All the above factors contributed to productivity but an additional factor which positively impacted yield was that some of the plant employees expressed an interest in overtime





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