SAP integrated Multilingual Workshop Management Mendix Application

Client Overview

- The client, based in Switzerland, aims to leverage new technology to improve working conditions on shop floors.

Application Overview

- The SmartProd is a multilingual smart operations management application which will be used on the shop floor by operators and managers. This application was to be integrated with SAP on the backend and simplify the user interaction and participate in continuous improvement process in Production.

Business Challenges

- Create a versatile application that can work seamlessly in different environments such as Web Browser, Tablet and Smartphones

- Large number of modules (34 modules) to be developed and tested in a very short duration owing to the client's urgency for the SmartProd application

- 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

Our Solutions

- 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 Indium's quality standards

- Implementation on the Mendix 8.1.1 version and integration to SAP (Backend) using the SAP Connectors

- Multilingual application components that can operate in 3 languages -English, French and German

- Access restrictions with role-based user permissions to match their respective responsibilities

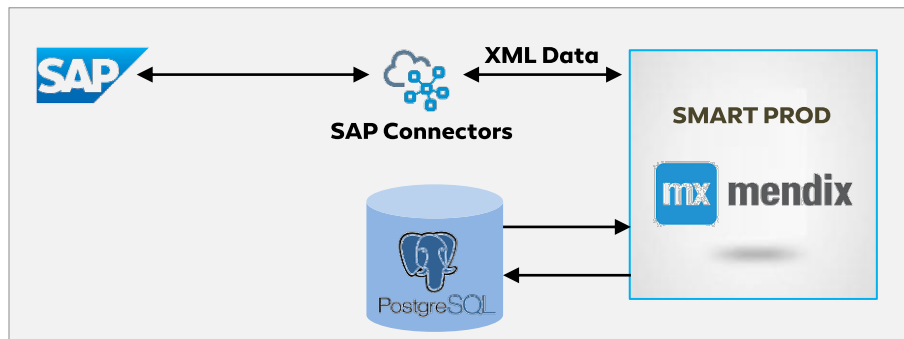- In-depth Mendix QA throughout the process to ensure quality standards

Technology

- Mendix (cloud)
- PostgreSQL
- SAP

High Level Architecture

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.