SAP LIQUID STUDIO FOR LEONARDO APPLICATION: CONNECTED SHELVES
Smart retail and self-checkout with SAP

Application Overview

Increased channels and changing customer expectations are driving innovation in retail. Additionally, store managers are looking for new ways to capture the real-time quantity of products on the shelves and consumer insights.

The Connected Shelves applications addresses both concerns. Using IoT and video analytics, the application captures detail on inventory and shoppers’ behaviors allowing for increased insights and the ability to send promotions and discounts to any customers located near the products. For shoppers, the application creates a new shopping experience by facilitating self-checkout.

Solution

The Connected Shelves application combines multiple SAP Leonardo technologies including AI, machine learning, IoT and blockchain to create an enhanced dashboard for store managers providing detailed information on their customers and a self-checkout experience for shoppers combined with better targeted promotions.

Business Value

- Real-time stock visibility and customer demographic/sentiment analysis.
- Direct integration into SAP S/4HANA® for restock orders.
- Automatic tracking of products selected from shelves.
- Ability for customer to do self-checkout with cryptocurrency account.

Features

- Uses video streaming and artificial intelligence to recognize and count the products on the shelves.
- Uses facial recognition to calculate gender, age range and mood of the individual viewing the products.
- Consolidates product and audience data into a dashboard for store managers.
- Provides ability to send promotions and discounts to shoppers using ultrasound techniques directly from this app.
- Enables RFID scanning of products into a smart basket.
- Includes beacons that detect location and provide automated checkout list for the customer.
- Using the app, the customer can send his identification to a cashier as well as data from their shopping list using ultrasound techniques.

Technologies in Use

- SAP Cloud Platform
- SAP Leonardo IoT Services
- SAP Leonardo Machine Learning
- Ethereum Blockchain
- Android SDK

Click here to watch the video.