

"Final Fork: The AI Crusade Against Food Waste"

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Key words

AI, Food Waste, Retail, Sustainability

Abstract

Objective

The objective of this project is to address the challenges associated with food waste and enhance the retail experience for customers by leveraging data from the Salling Group's APIs. Specifically, we aim to achieve the following:

- Reduce Food Waste: Identify, quantify, and strategize against food waste within the retail sector as an activism initiative to promote sustainability and resource conservation.
- Enhance Product Discovery: Help users discover relevant products more efficiently. We can provide personalized recommendations based on user preferences, search queries, and past purchasing behavior.
- Plan Around Holidays: Obtain information about public and non-public holidays in Denmark. By understanding holiday schedules and consumer behavior during these periods, retailers can plan promotions, and inventory accordingly to maximize sales opportunities.

Scope:

The scope of this project covers two main aspects: retrieving information on food waste from nearby stores (Føtex, Netto, Basalt, and Bilka) and obtaining insights into relevant products through the Product Suggestions API. We will focus on a specific geographical area, Denmark, and consider data related to clearance sales and product suggestions from Bilka ToGo stores.

Dataset(s):

The primary dataset for this project will be sourced from the Anti Food Waste API provided by the Salling Group. The datasets includes information about heavily discounted food products nearing expiry in local stores, products available for sale on Bilka ToGo, store locations, opening hours, and various attributes, holidays information.

ABA topics

Predictive Analytics: Develop predictive modeling techniques to forecast demand for discounted food products based on historical sales data and seasonal trends. And to help retailers optimize pricing strategies and minimize overstocking or understocking of clearance items.

Consumer Behavior Analysis: By understanding consumer preferences, spending patterns, and shopping habits, retailers can tailor marketing strategies, personalized product recommendations and promotions to

maximize sales opportunities and drive customer engagement.