

# SYDE Order

Daniel Kim  
Kha Nguyen  
Seth Villaruz

# The Problem

Many retailers are seeing issues with the quantity of products they are selling. Some products are oversupplied which leads to a waste of material and money, while other products are undersupplied which reduces profits. Retailers need to implement a method to maximize profits and minimize the disposal of excess inventory.

Daisy Intelligence Prompt

The background image shows a laptop screen with a line graph and a pie chart. The line graph has a blue line with markers, showing an upward trend with some fluctuations. The pie chart is partially visible behind the text. The entire image has a dark, semi-transparent overlay to make the white text stand out.

# Situation Impact Statement:

Design a medium to be used by retail business owners to track monthly product sales, allowing for the minimization of excess inventory and fulfillment of customer demand through optimizing restock purchase quantities.

A close-up photograph of a hand holding a pen, poised to write on a document. The background is blurred, showing what appears to be a person's face and some office equipment. The image is used as a background for the title section.

# The Solution

Our team created a web-based application that tracks sales trends for businesses.

Furthermore, it provides users insight regarding the stock of different item types.

Our application also provides recommendations regarding changes in restock order quantities based upon increases or decreases in sales trends for specific items.

# SYDE Order

An aerial photograph of the New York City skyline at dusk. The sky is a mix of dark purple, blue, and orange. The city is densely packed with skyscrapers, many of which are illuminated with their interior lights. The Empire State Building is prominent in the center, with its top lit in red and green. The Hudson River is visible on the right side of the image.

# Structure

Tools used:

- Python
- HTML
- CSS
- Flask
- Figma

# How it works

## Step 1

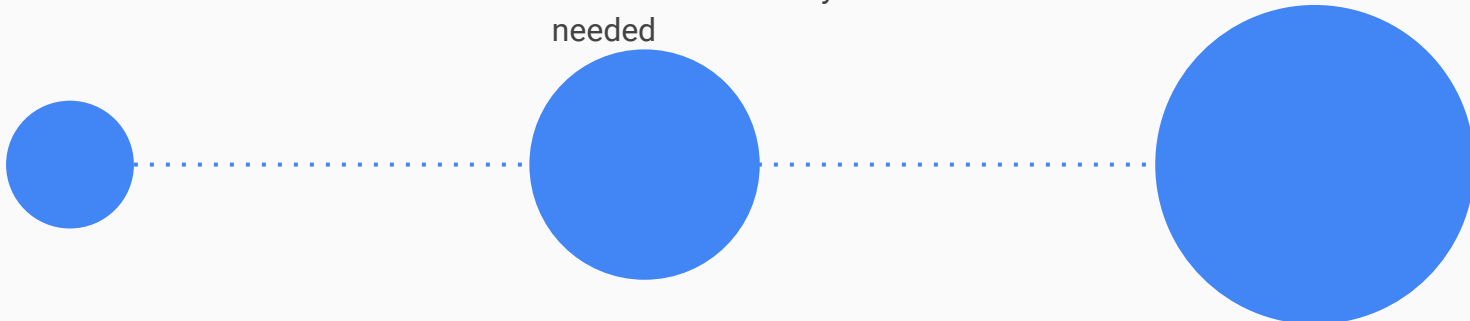
Amount of items purchased and sold gets inputted into a local database

## Step 2

Data is extracted by our backend algorithms. Through calculations,, it determines the optimal amount of inventory needed

## Step 3

Results are pushed to the user application interface



# Projections

- Sharp increase in retail profit margins by reducing their over-expenditure on excess inventory
- Decrease in excess materials that would have gone to waste, leading to an increase in material sustainability
- Increased prediction accuracy for retailers



# Next Steps

- Implementation of an AI to determine ideal product pairings
- AI to determine the ecological footprint of various items in the market
- Historical data of the product
- Customer reviews
- Extract data from a real-time retailer's database

