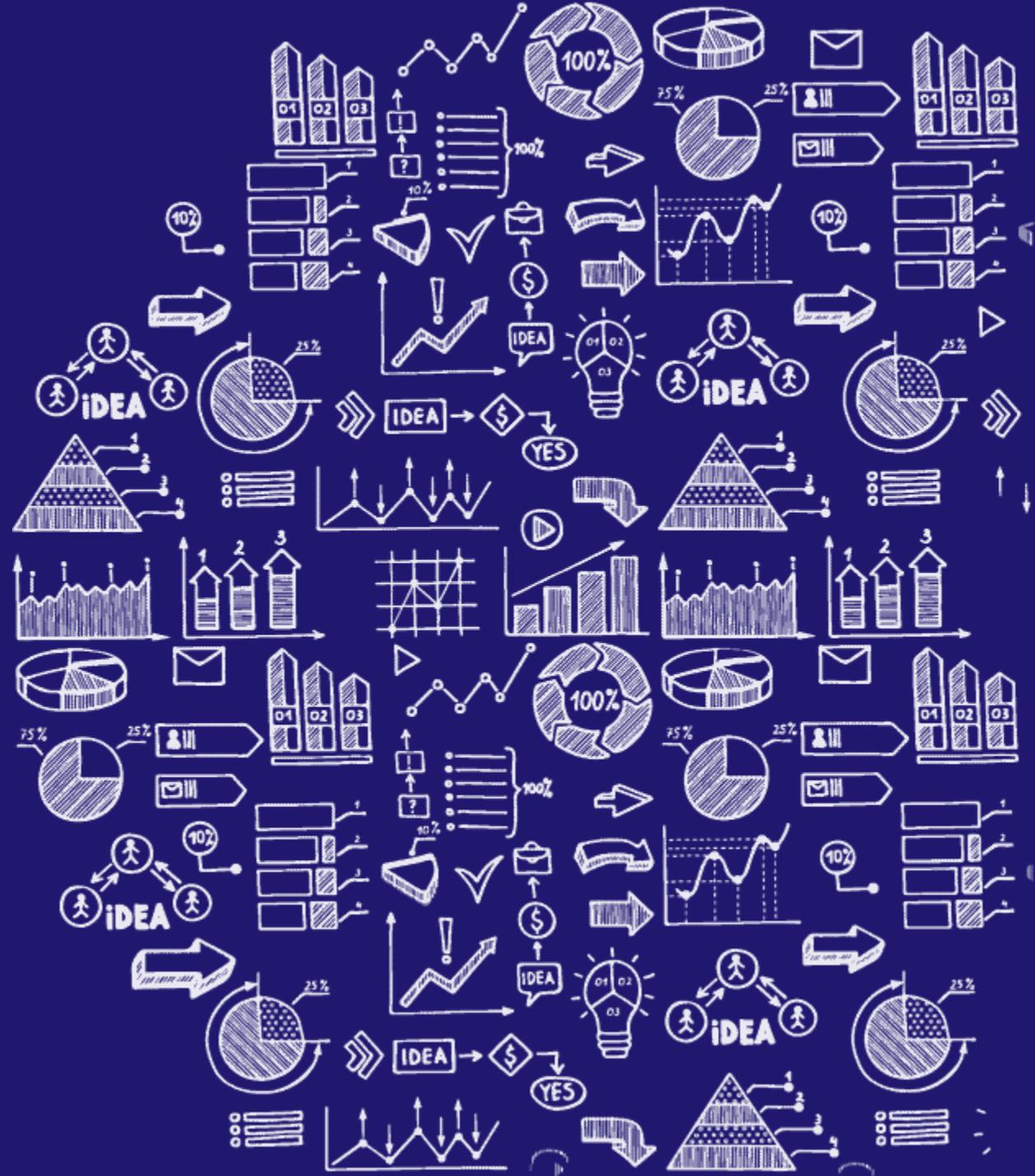# Gramener
Insights as Stories

Visualization consolidated deck

Warehouse Optimization

Warehouse Capacity against Demand Forecasts improved beyond 95%

A leading US based logistic services organization wanted to forecast the demand of the cases to be shipped from the warehouse. The goal was to align warehouse capacity to meet the demand.

Several factors affect warehouse capacity. Availability of staff, Working Hours, Hours spent on Picking, Efficiency of staff, Bulk Ratio of Orders. It is critical to optimize these factors for desired capacity
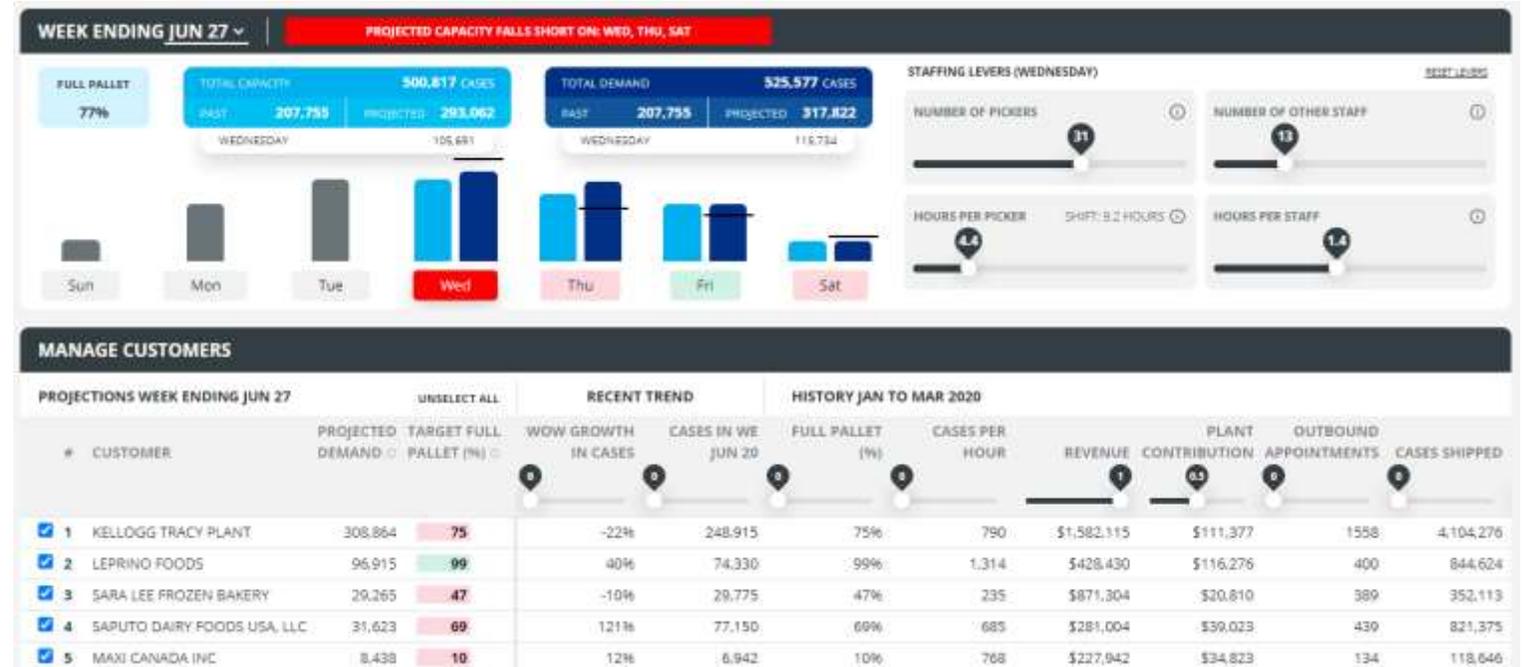
Gramener built a custom analytics solution that leverages time series forecasting and capacity simulation to identify gap between weekly demand forecasts and warehouse capacity simulated from staffing levers.

This allowed the warehouse managers to identify risks much before a significant gap is created between the demand and the capacity on a given day.

7%
Average gap identified between projected demand and simulated capacity

95%
Accuracy of demand forecasts across weekdays

Capacity forecast by weeks

Demand forecast by weeks

Scenarios planning interface.
E.g; adjust workforce to meet the demand

An automated alert gets generated everyday to highlight the gap between the simulated capacity and the projected demand. The projected demand is also compared against the actual demand recorded in the system.

Operations Planning Tool

USCS saved $1.2 Mn in Potential Detention Cost by 16% Decline in Facility Turn Time

A leading US based refrigerated warehousing and related logistics service provider wanted to decrease their facility turn time for outbound trucks. High facility turn times would lead to potential detention charges.

Gramener designed and developed an intelligent appointment scheduler for the warehouse staff to schedule appointments.

This solution generated schedule recommendations based on impact of the scheduled appointment on other appointments of the day.

The system used machine leaning based algorithms to predicts the turn time of the outbound truck.

The solution was integrated with the warehouse management system and deployed across 26 facilities.

The solution enabled facilities to decrease their facility turn time by 16% which led to a potential saving in Annual Detention Cost of $ 1.2M.

$1.2M
Savings in Annual Potential Detention Cost

16%
Decline in Facility Turn Time for Outbound Trucks
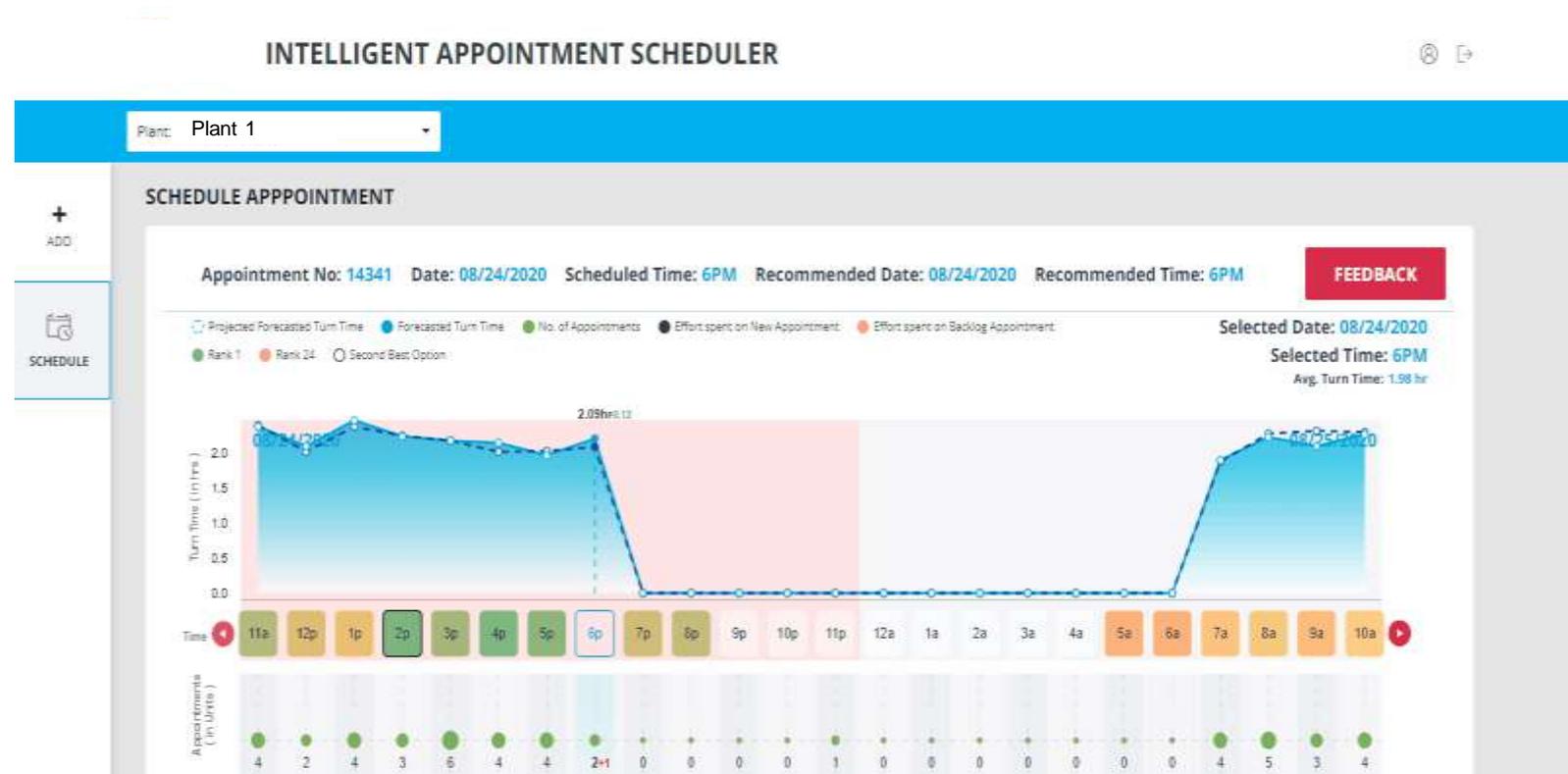
Intelligent Appointment Scheduler

The application leverages **machine learning** to recommend optimal schedule for all **Outbound Appointments** based on Order Complexity, Estimated Picking Effort, Warehouse Load

Warehouse staff's productivity & traffic management improved by intelligent task allocation

A leading US based refrigerated warehousing and related logistics service provider wanted to improve staff productivity and reduce travel distance between tasks. Low staff productivity would lead to high overtime charges.

Gramener designed and developed a smart task allocation command center to automate the task assignment to the available staff

This solution generated recommendations for tasks by evaluating all the staff based on their historical task performance data & their current location in the warehouse.

The system used machine leaning based algorithms to estimate the time taken by all staff member to complete a particular task & assign the best person who would complete the task in the lowest time.

The solution was integrated with the warehouse management system and deployed across 2 facilities.

The solution enabled automated assignment of tasks thus reducing supervisor's administrative effort , reduction in warehouse traffic

Smart Task Allocation

The application leverages **machine learning** to recommend optimal staff assignment for all **picking tasks** based on historical staff data and the closeness to the picking location