

# Entri Software Pvt Limited

Kakkanad, Kerala

Supply Chain Management

# 16th August 2023 OVERVIEW

A Fast Moving Consumer Goods (FMCG) company entered into the instant noodles business two

Years back. Their higher management has noticed that there is a mismatch in the demand and supply. Where the demand is high, supply is pretty low and vice-versa which results in a loss in inventory cost and ultimately loss to the company. Hence, the higher management wants to optimize the supply quantity in each and every warehouse in the entire country.

# GOALS

* The objective of this project is to analyze supply quantity and impact of other features on the product weight.
* Focus on all steps of data science (EDA, data processing, model, evaluation, charts)
* Create visuals and Analyze historical data of product weights across all warehouses to derive meaningful insights.

# Data Dictionary

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| --- | --- |
| **variable** | **Description** |
| **Ware\_house\_ID** | Unique Warehouse id where product is prepared for dispatch.  dtype: Object |
| **WH\_Manager\_ID** | Manager Id present in the warehouse dtype: Object. |
| **zone** | Zone of the Warehouse, dtype: String` |

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| **WH\_regional\_zone** | Regional Zone of the warehouse, dtype: Object |
| **num\_refill\_req\_l3m** | Reﬁlling request received by the warehouse in the last 3 months, dtype: integer. |
| **transport\_issue\_l1y** | No. of transport issued for warehouse in last 1 year, dtype: integer. |
| **Competitor\_in\_mkt** | No. of competitors in the market, dtype: integer. |
| **retail\_shop\_num** | Number of retail shops who sell noodles produced by the warehouse, dtype: integer. |
| **wh\_owner\_type** | The warehouse is owned by the company or it is on rent, dtype: String. |
| **distributor\_num** | No. of distributor who works between warehouse and retail shops, dtype: integer. |
| **flood\_impacted** | Is the warehouse in a ﬂood impacted area or not, dtype: integer. |
| **flood\_proof** | Flood\_proof: Warehouse is having ﬂood proof indicator, dtype: integer. |
| **electric\_supply** | Does the warehouse have proper electric supply along with some power backup, dtype: integer. |
| **dist\_from\_hub** | distance from the warehouse to production |

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|  | hub, dtype: integer. |
| **workers\_num** | no. workers in the warehouse, dtype: integer. |
| **wh\_est\_year** | warehouse establishment year, dtype: integer. |
| **storage\_issue\_reported\_l3m** | storage issues reported by the warehouse in the last 3months. |
| **temp\_reg\_mach** | warehouse having temperature regulating machine indicator or not, dtype: integer. |
| **approved\_wh\_govt\_certificate** | Type of approval warehouse having been issued by government, dtype: Object. |
| **wh\_breakdown\_l3m** | Number of times the warehouse faces the breakdown in the last 3 months, dtype: integer. |
| **product\_wg\_ton** | Product weight, dtype: integer. |