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# Warung Pintar Candidate Test v.7a

**Month DD$^{th}$, YYYY**

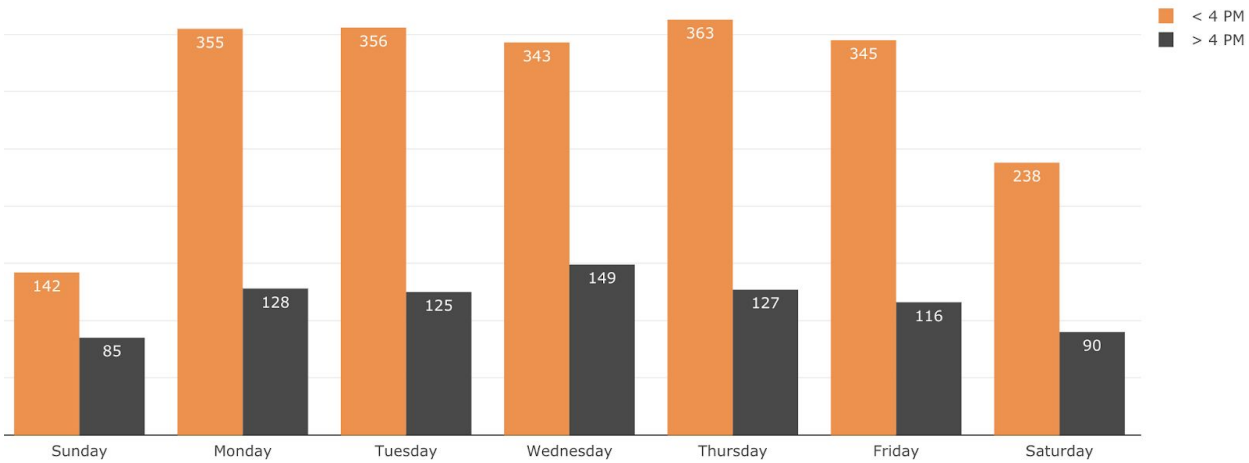
Please do not try to write your answer on this document by requesting edit access. You can make a copy and write your answer on the copy. Submit your answer in pdf format along with required files for Case B. Good luck!

## CASE A

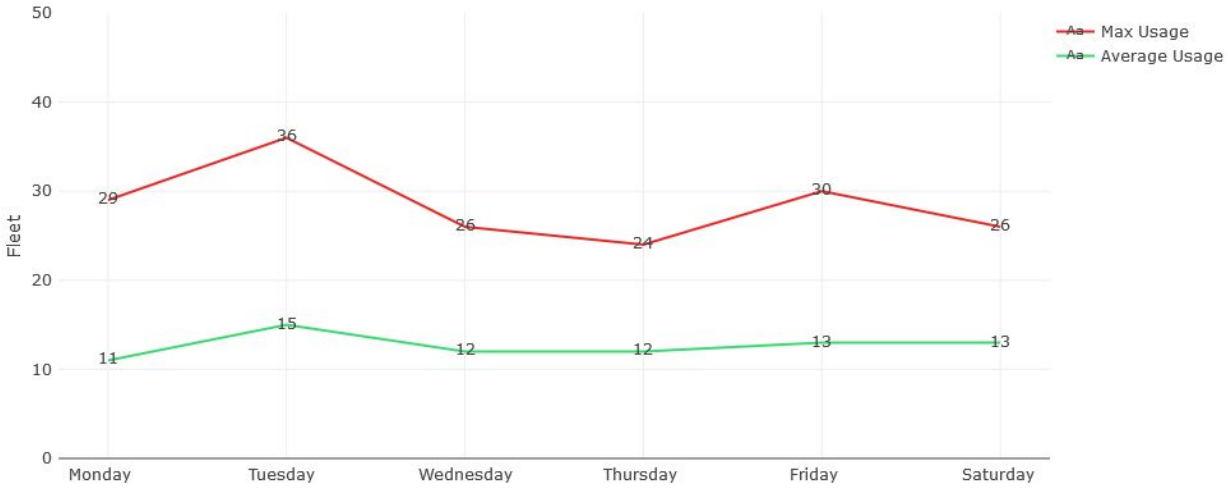
### Instructions

Please follow the case study and demonstrate your ability to solve problems and get things done.

### Data



Monday to Sunday Sales Order per time (>4pm & <4pm)




Monday to Sunday Fleet/Logistic Usage in 1 month

## Problem

Warung Pintar Logistic team facing fleet / logistic problems : fleet usage optimization. We spent monthly basis for the fleet, based on the chart above, we need 36 fleet for covering max order on Tuesday. Assuming we will invest in those 36 fleets for operational delivery, then we will have significantly low fleet usage on other days (~6-12 fleet free).

We showed a demand chart as well so we can see the correlation between demand and fleet / logistic usage. Sales order <4pm means the logistics team will proceed & deliver on the next day, and >4pm sales order will proceed & delivered in the next 2 days.

## Goal

1. Reducing & optimizing Warung Pintar fleet / logistic usage so at the end we can make cost efficiency

## Question

- What actions would you commit to fix the problem based on this data?
- Pick up your most high priority task and create stories for development.
- How will you implement your suggestions? What will you prioritize and why?
- What will you track to measure the success of your features/implementation?

## Note

If you assume any condition, please mention in your deck

# SOLVE A

..... *(put your answer below before moving into the next case)* .....

# CASE B

## Instructions

1. Create a dashboard (in Power BI or Tableau) to display the information visually to the BOD.
2. Prepare a presentation to present any insights, anomalies, and a concrete plan for management to commit to in the next Quarter with a goal to persuade management to make a decision based on your suggestions.
3. Create a customer/warung segmentation based on warung metrics you find is important;
4. Analyse the user retention rates and present your findings

Make assumptions whenever required, please make sure you mention the assumptions in your deck

## RAW Data

WP_CT_DA_SALES_ORDERS.csv

## Glossary

| Column Name | Description |
|---|---|
| **invoice_id** | Computer-generated sales slip invoice identification number. |
| **customer_id** | Customer Identifier of the corresponding invoice id. |
| **branch** | Branch of the store (3 branches are available identified by A, B, and C). |
| **city** | Location of the store. |
| **customer_type** | Type of customers, recorded by Members for customers using member card and Normal for without member card. |
| **gender** | Gender type of customer. |
| **product_line** | General item categorization groups -- Electronic accessories, Fashion. accessories, Food and beverages, Health and beauty, Home and lifestyle, Sports and travel. |
| **unit_price** | Price of each product in $. |
| **quantity** | The number of products purchased by the customer. |
| **tax** | 5% tax fee for customer buying in $. |
| **total** | Total price including tax in $. |
| **date** | Date of purchase (Record available from January 2019 to March 2019). |
| **time** | Purchase time (10 am to 9 pm). |
| **payment** | Payment used by the customer for the purchase (3 methods are available – Cash, Credit card and Ewallet). |
| **cogs** | Cost of goods sold in $. |
| **gross_margin_ratio** | Gross margin percentage. |
| **gross_income** | Gross income in $. |

| | |
|---|---|
| **rating** | Customer stratification rating on their overall shopping experience (On a scale of 1 to 10). |

## SOLVE B

*..... (please attach the dashboard link and presentation file in pdf in your submission email -- note: please provide tableau file in .twbx format) .....*

# SQL TEST

1. Given a database with 3 tables as follows:

**category** (index = **id**)

| id | name |
|---|---|
| 1 | Makanan Instan |
| 2 | Fresh |
| 3 | Makanan Ringan |
| 4 | Rokok |
| ... | ... |
| 99 | Minuman Kemasan |

**product** (index = **id**)

| id | name | category_id |
|---|---|---|
| 1 | Filma Minyak Goreng | 7 |
| 2 | Beras si Geulis | 8 |
| 3 | Kapal Api Special Mix | 15 |
| 4 | Ladaku Merica Bubuk | 10 |
| ... | ... | |
| 99 | Djarum Gold | 4 |

**sales_order** (index = **trx_id**)

| trx_id | trx_line_id | product_id | trx_state | order_value | created_at |
|---|---|---|---|---|---|
| 1 | 1 | 3 | Delivered | 100,000 | 2020-10-05 21:57:26 |
| | 2 | 1 | Cancelled | 300,000 | 2020-08-15 15:05:55 |
| | 3 | 1 | Cancelled | 1,500,000 | 2020-09-18 20:02:58 |

| | | | | | |
|---|---|---|---|---|---|
| 2 | 4 | 5 | Delivered | 50,750,000 | 2020-11-05 13:40:17 |
| | 5 | 1 | Cancelled | 7,750,000 | 2020-10-24 12:49:40 |
| 3 | 6 | 4 | Delivered | 5,500,000 | 2020-09-21 9:42:39 |
| | ... | ... | ... | ... | 2020-09-25 8:16:32 |
| 99999 | 99999 | 7284 | Delivered | 25,000,000 | 2020-09-14 20:46:29 |

Write SQL queries to:

a. Get top 3 products with the highest total sales value in October 2020 in each category. Show the category name, product name, and total sales value.
   Total Sales Value = Order Value from delivered transaction (trx_state = 'Delivered').
b. Get all products with sales value lower than average sales value of products within the corresponding category. Show category name, product name, product sales value, and average sales value in corresponding category.
c. Calculate sales lost and sales lost rate of each category, sort by sales lost descending. Show category name, sales lost, and sales lost rate.
   Sales lost = Order Value from Cancelled Transactions.
   Sales Lost Rate = (Order value from cancelled transactions)/(Total order value from all transactions)

## APPENDIX