



# **Water Station Analytics Project**

# ENG. BASMALA ELSAYED



0127443271



basmala2lesayed@gmail.com



[LinkedIn Profile](#)



[Github Profile](#)



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# Water Company Data Overview And Used Tool

This data provides a snapshot of a water company's operations in KSA

- Pump Operations: How many pumps are running, their specifications, and their maintenance schedules.
- Water Flow: The amount of water coming into the stations and going out to the city.
- Customer Impact: Information about water levels in storage tanks, customer complaints, and any leaks in the system.
- Costs and Efficiency: How much it costs to run the pumps, how efficient the water production is, and the overall profit.
- Visual Maps: The data includes maps showing the locations of water stations and any leaks, with important details available when you hover over the points.

01

We used pgAdmin and PostgreSQL  
for data generation

02

Tableau (for visualizations and  
dashboards),



# Data Generation Process



## 1st Step

PostgreSQL for database management.



## 2nd Step

pgAdmin for data generation and interaction.



## 3rd Step

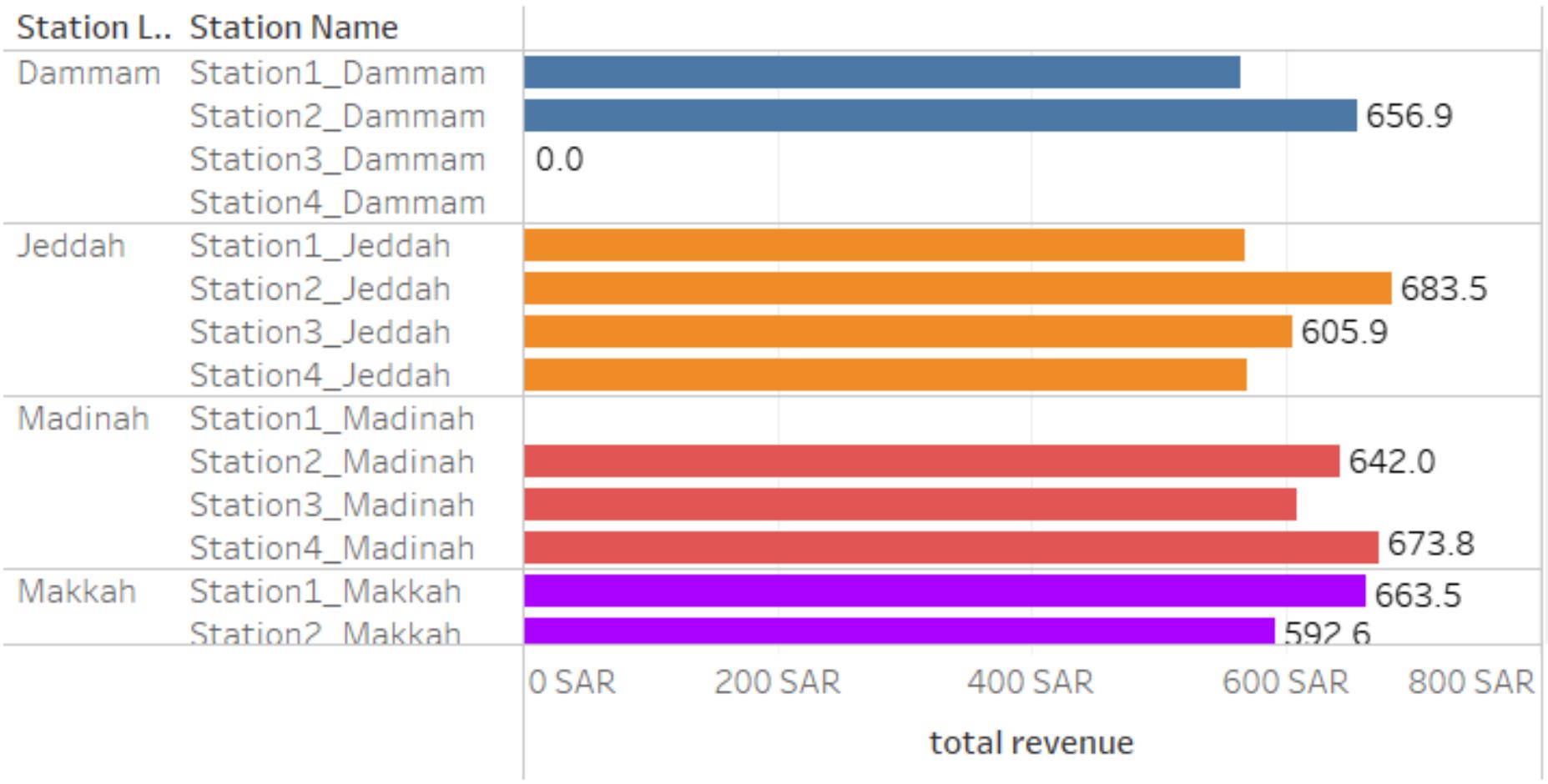
Created tables with necessary columns



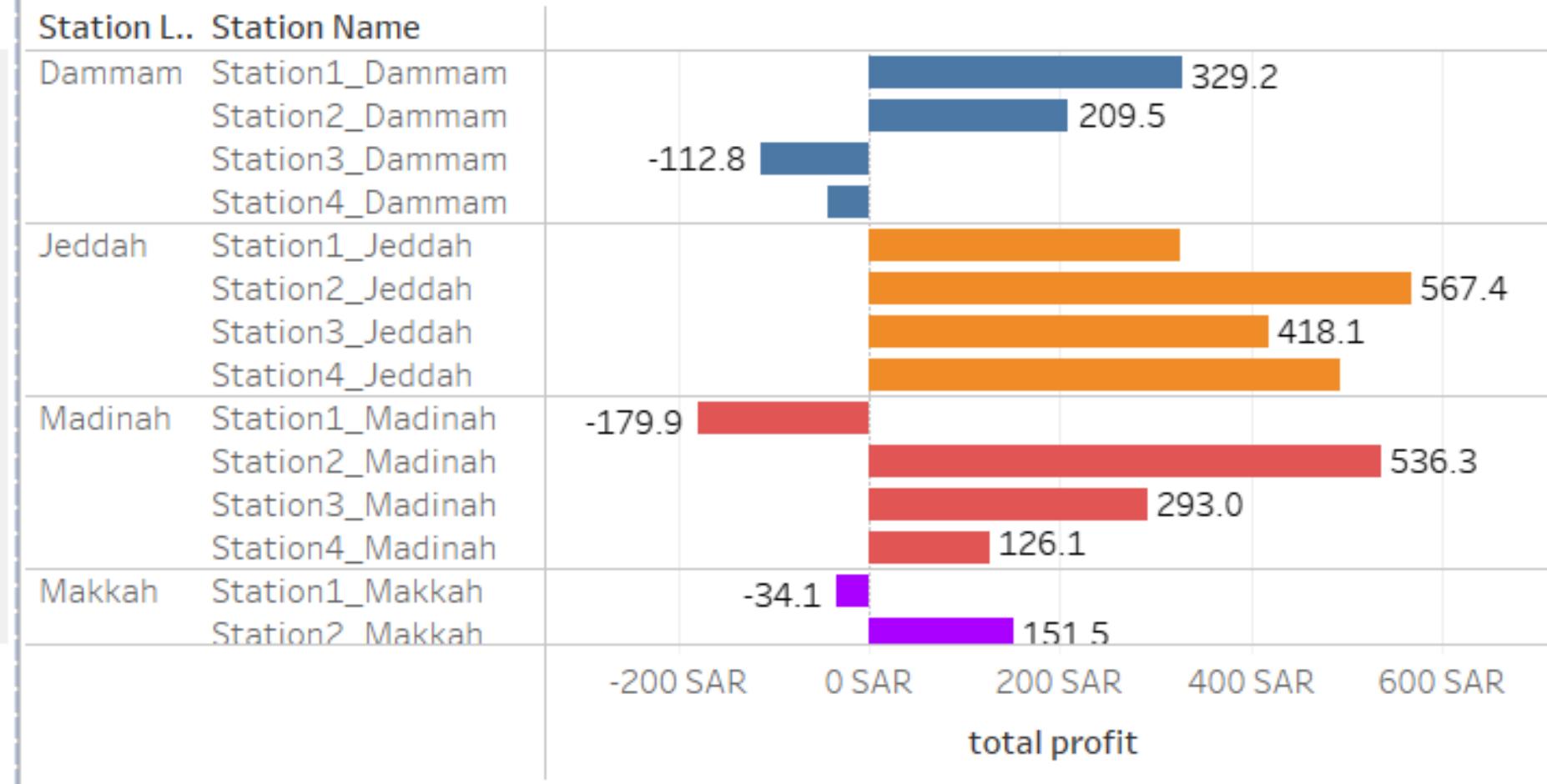
## 4th Step

Used SQL functions to generate realistic dummy data.

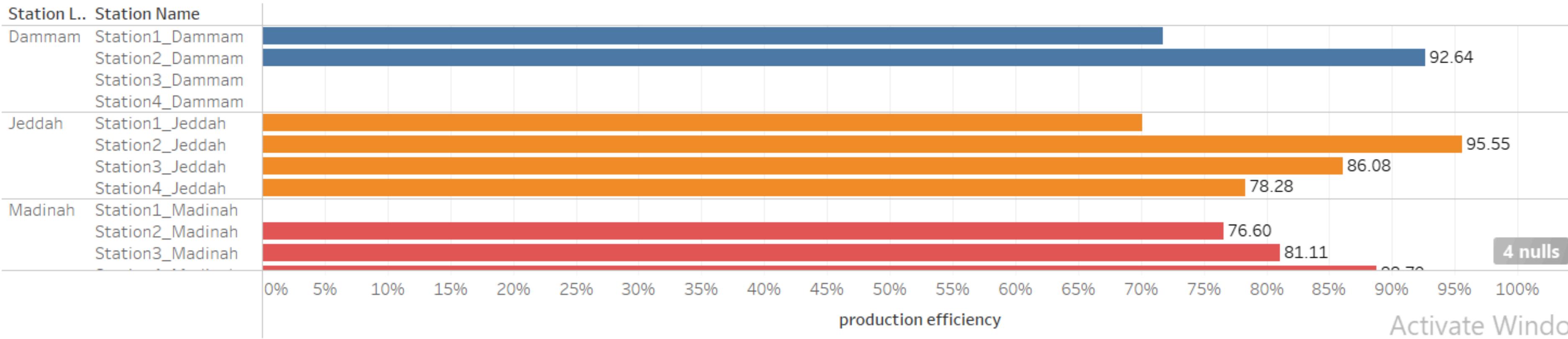
## Convert the production into Selling



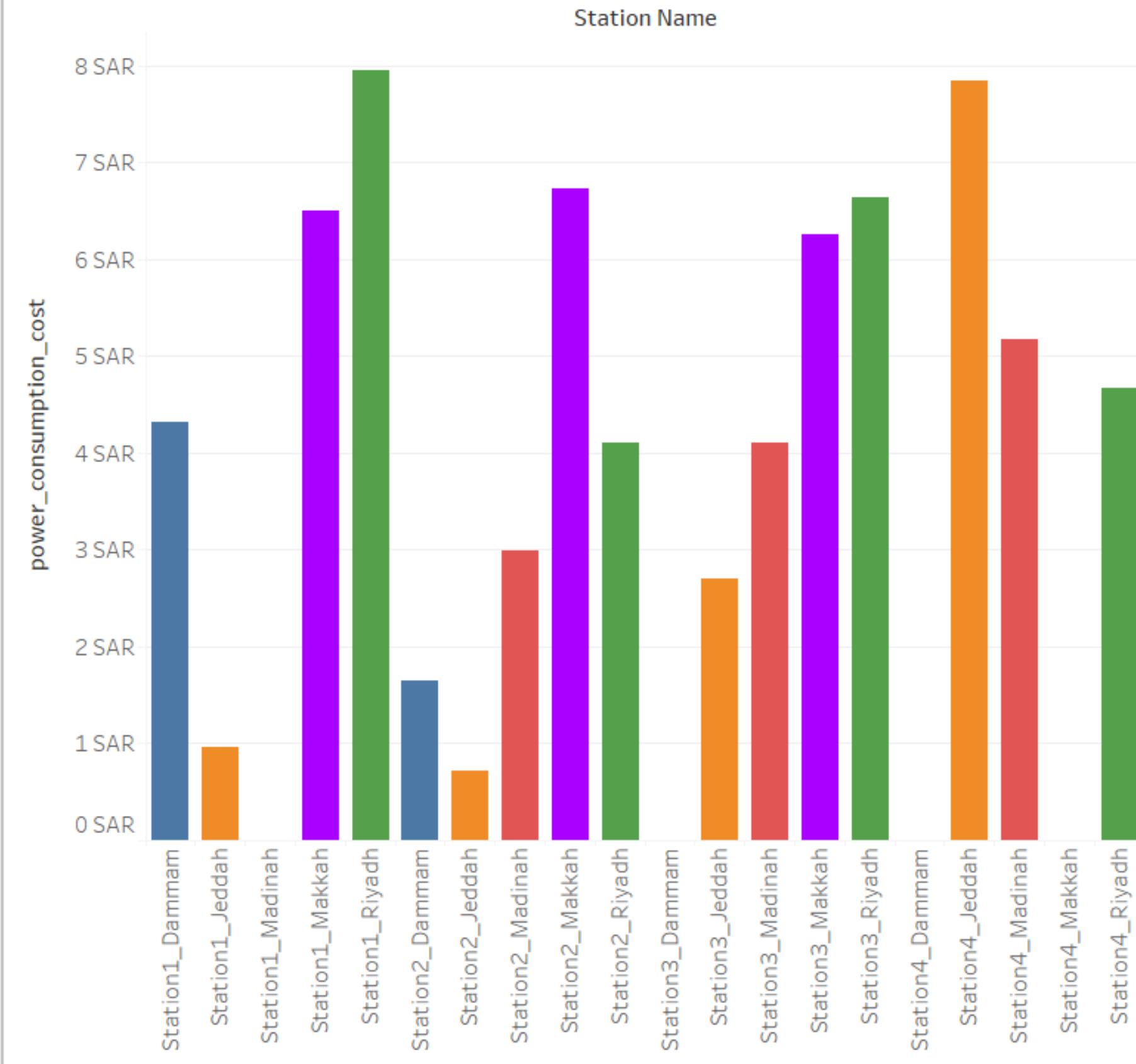
## total profit



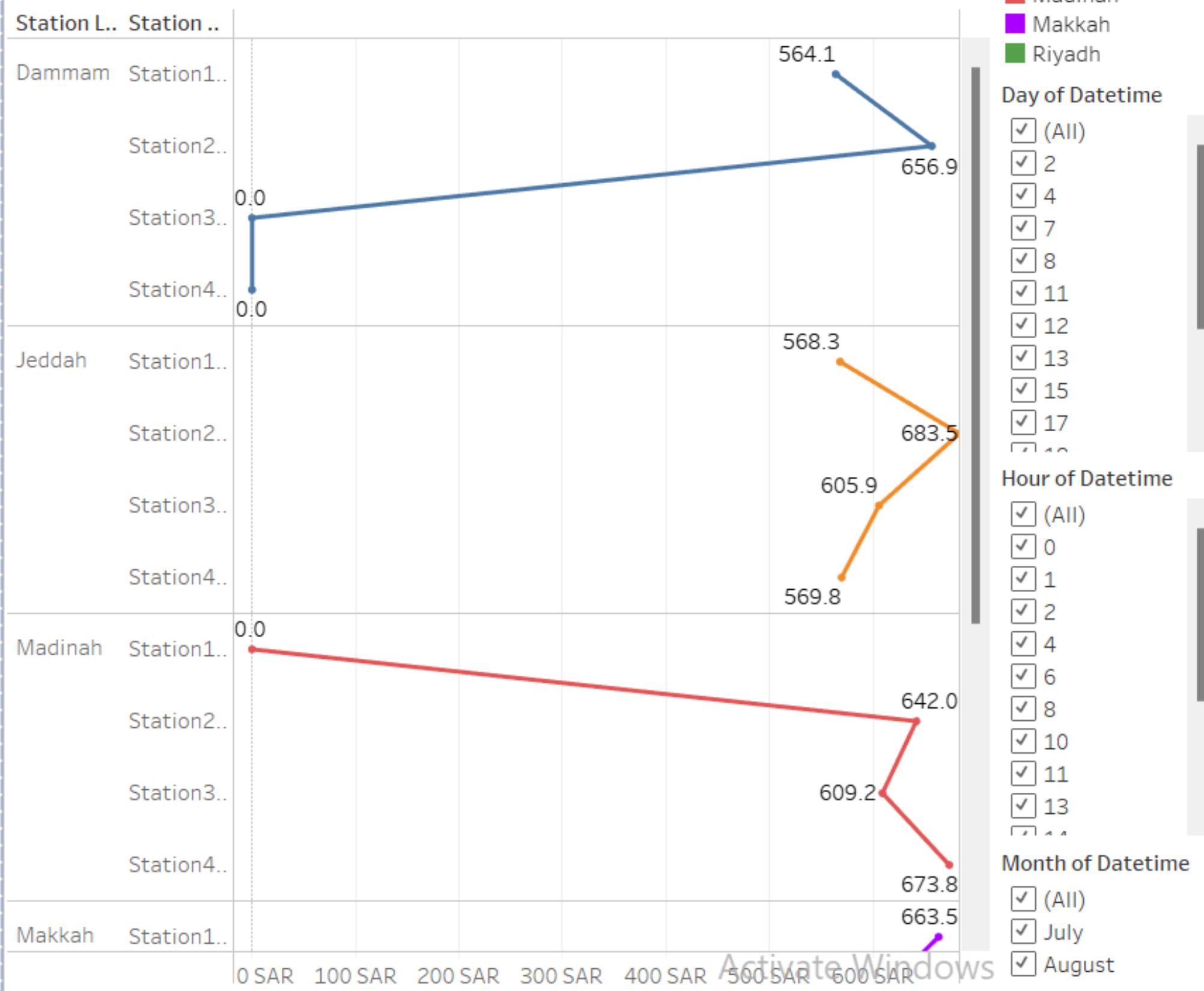
## the production efficiency



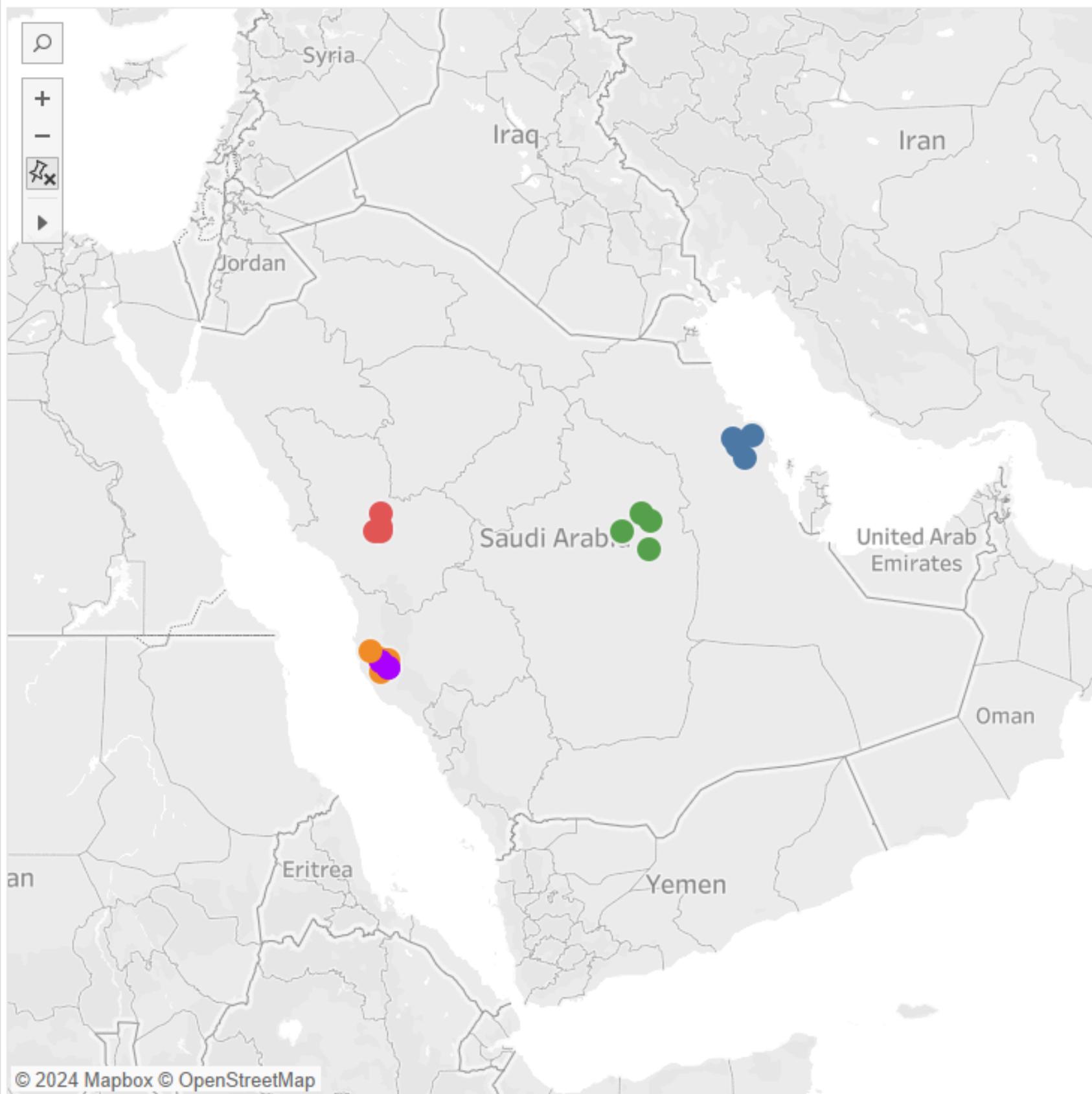
Convert the power consumption into cost.



Show the total amount of production based on hourly/daily/monthly



## Show water stations on the map



## Show the leakage on the map



Activate Windows  
Get it now

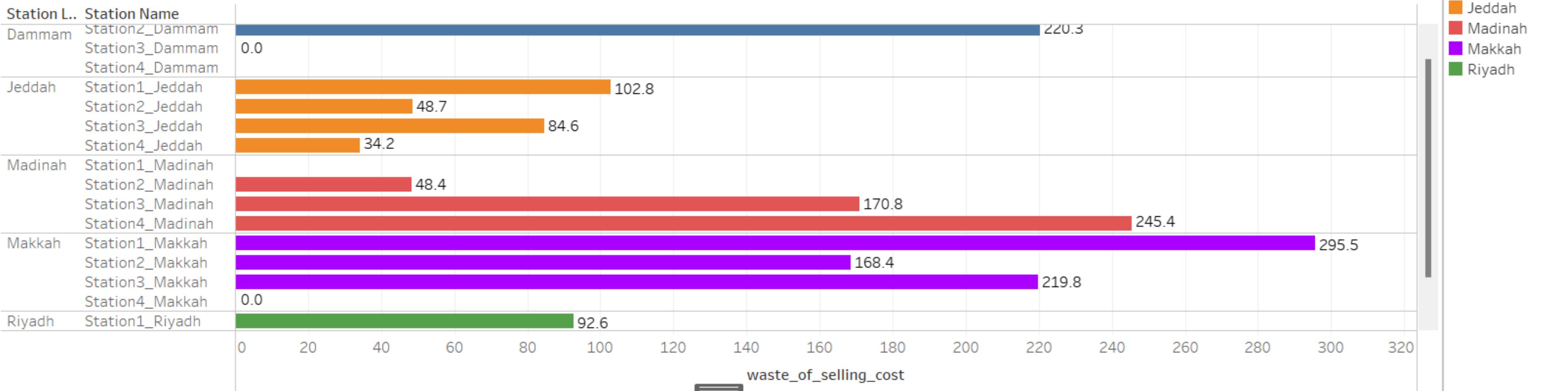
Station Location

- Dammam
- Jeddah
- Madinah
- Makkah
- Riyadh

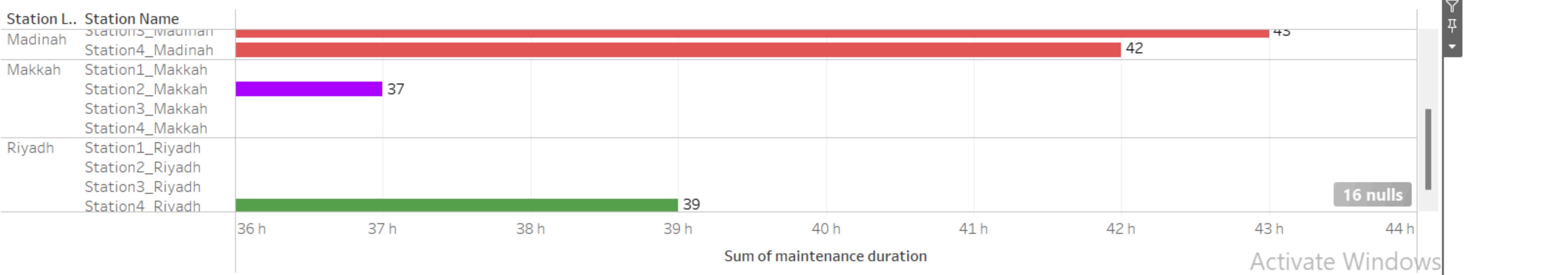
Leakage Location

- Station2\_Makk..
- Station3\_Madin..
- Station4\_Madin..
- Station4\_Riyadh

## Waste of selling cost based on maintenance period.



## Show the maintenance period



Go to Settings to activate Windows.

# Conclusion

This project generated realistic data simulating a Saudi water company's operations, covering metrics like pump efficiency, water flow, and costs.

Visualizations revealed insights for optimizing resources, reducing waste, and improving profitability.

The results provide a strong foundation for data-driven decisions and future enhancements.

# THANK YOU

**ENG. Basmala Elsayed**

- 📞 0127443271
- ✉️ basmala2lesayed@gmail.com
- 🌐 [LinkedIn Profile](#)
- 🌐 [Github Profile](#)

