HYDRO INFORMATICS

SYED IMAMI
2020113012

WATER CONSUMPTION IN IIITH

- Drinking water
- Washing Machine
- Cooler (Summers)
- Plants and Trees

01 - INTRODUCTION

- In August and September 2023, the college faced a significant water quality issue, prompting concerns among the campus community.
- As a result, many individuals resorted to using water from external sources, indicating a loss of trust in the management's ability to provide clean water.
- Analysis of the data reveals drops in water consumption and drinking habits observed in August and September 2023.
- Shift from bore water to RO and Manjeera water due to bad quality water issues, specifically TDS levels.

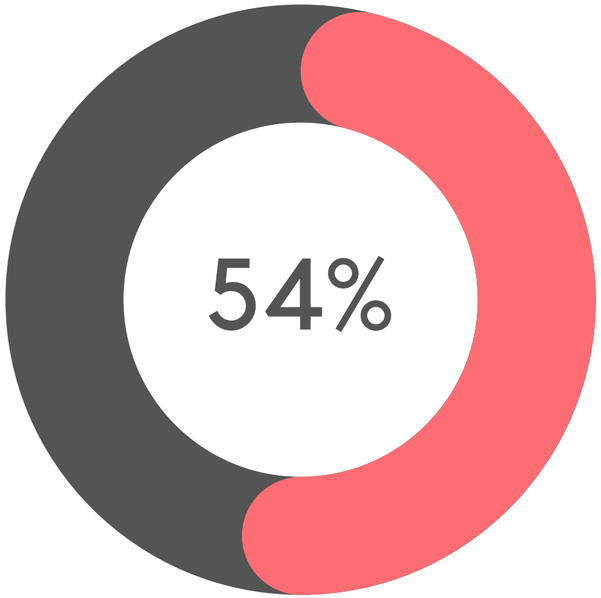
02 - PROBLEM

- Quality of Drinking Water: Highlight the concerns regarding the quality of drinking water on campus, specifically the increase in TDS levels leading to bad taste and health concerns.
- Excessive Water Usage: high water consumption levels despite efforts to address the quality issues.

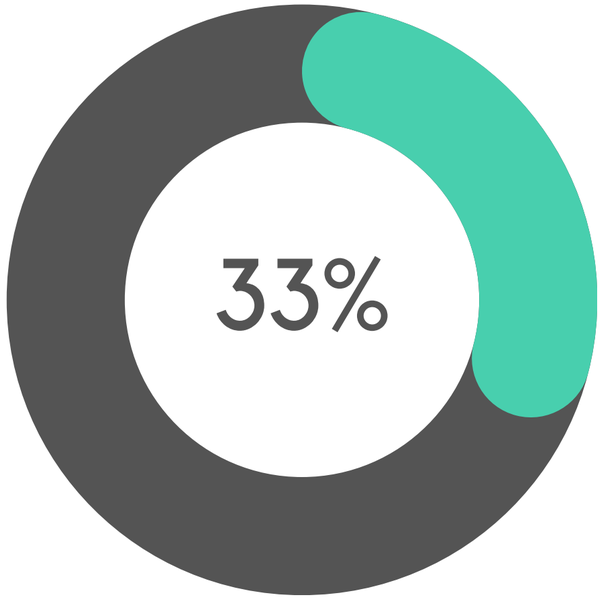
03 - DATA ANALYSIS

- Water Consumption Trends: Analyze the data to identify trends in water consumption before and after the introduction of RO and Manjeera water.
- Drinking Water Preference: Examine the data to understand the preference for purchased water over campus-provided water.
- Impact of Quality Issues: Quantify the drop in water consumption during August and September 2023 due to bad quality water issues.

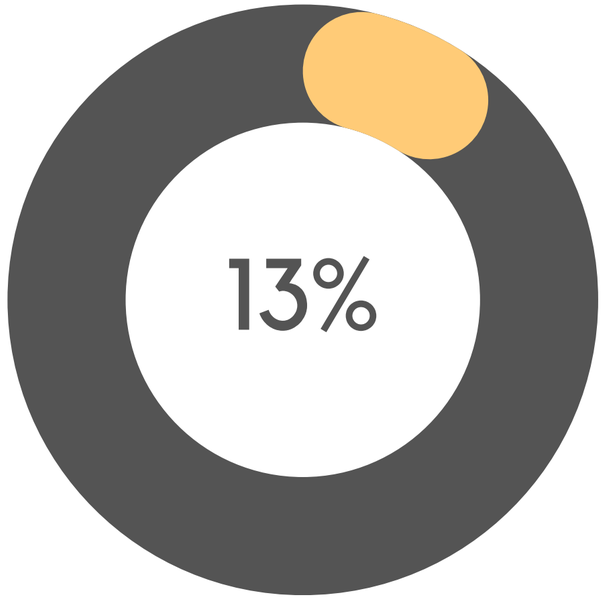
WATER CONSUMPTION



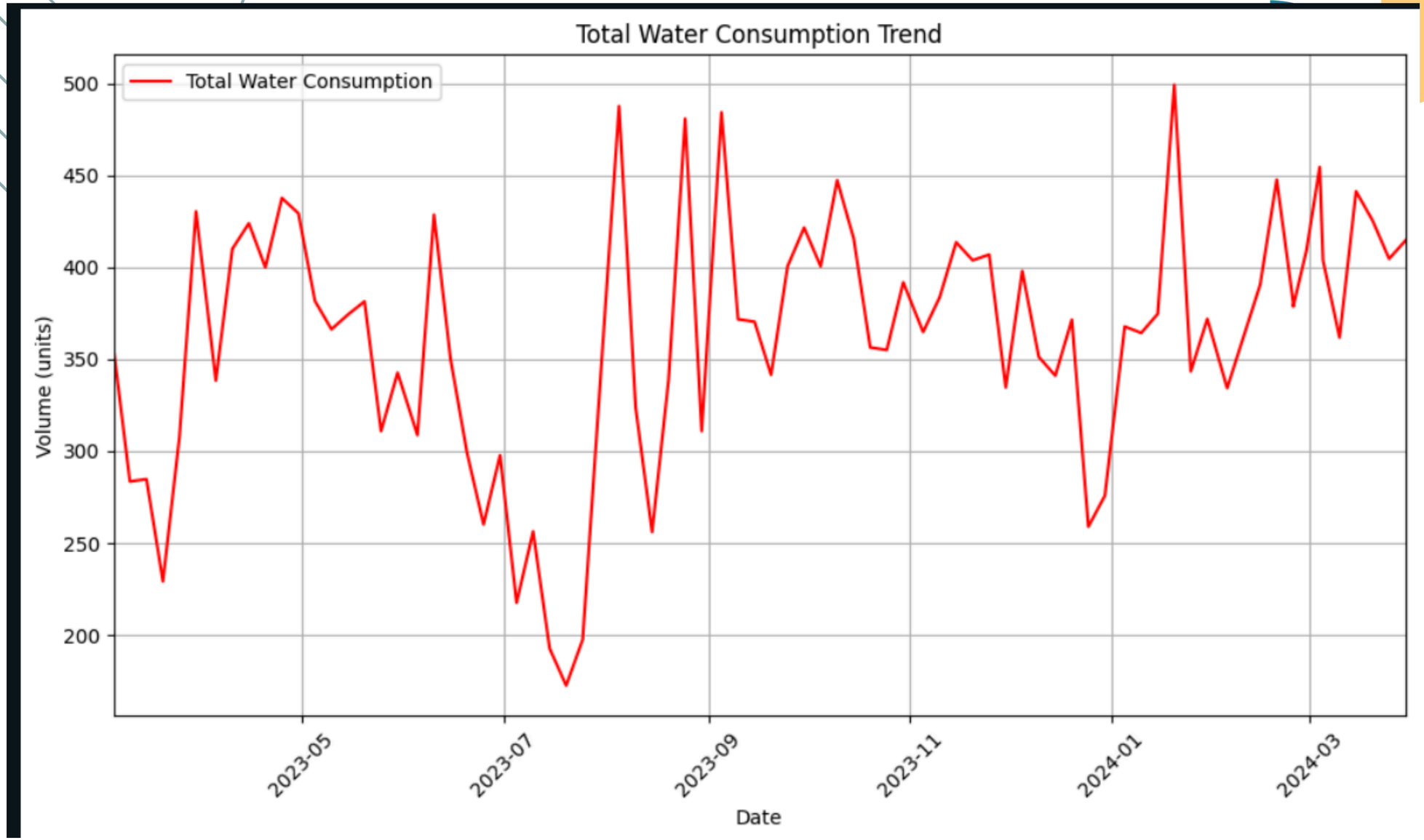
PARIJAAT

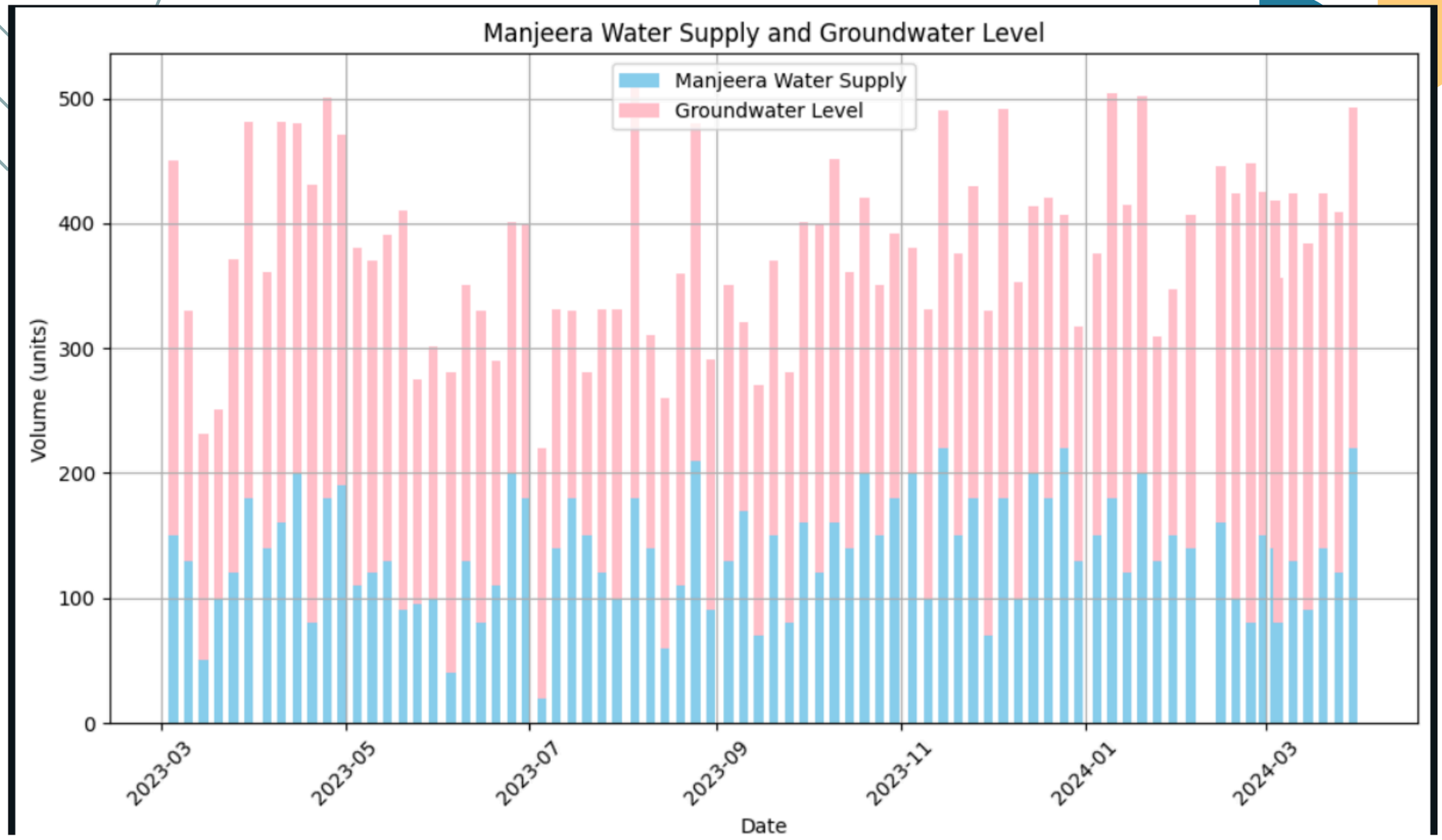


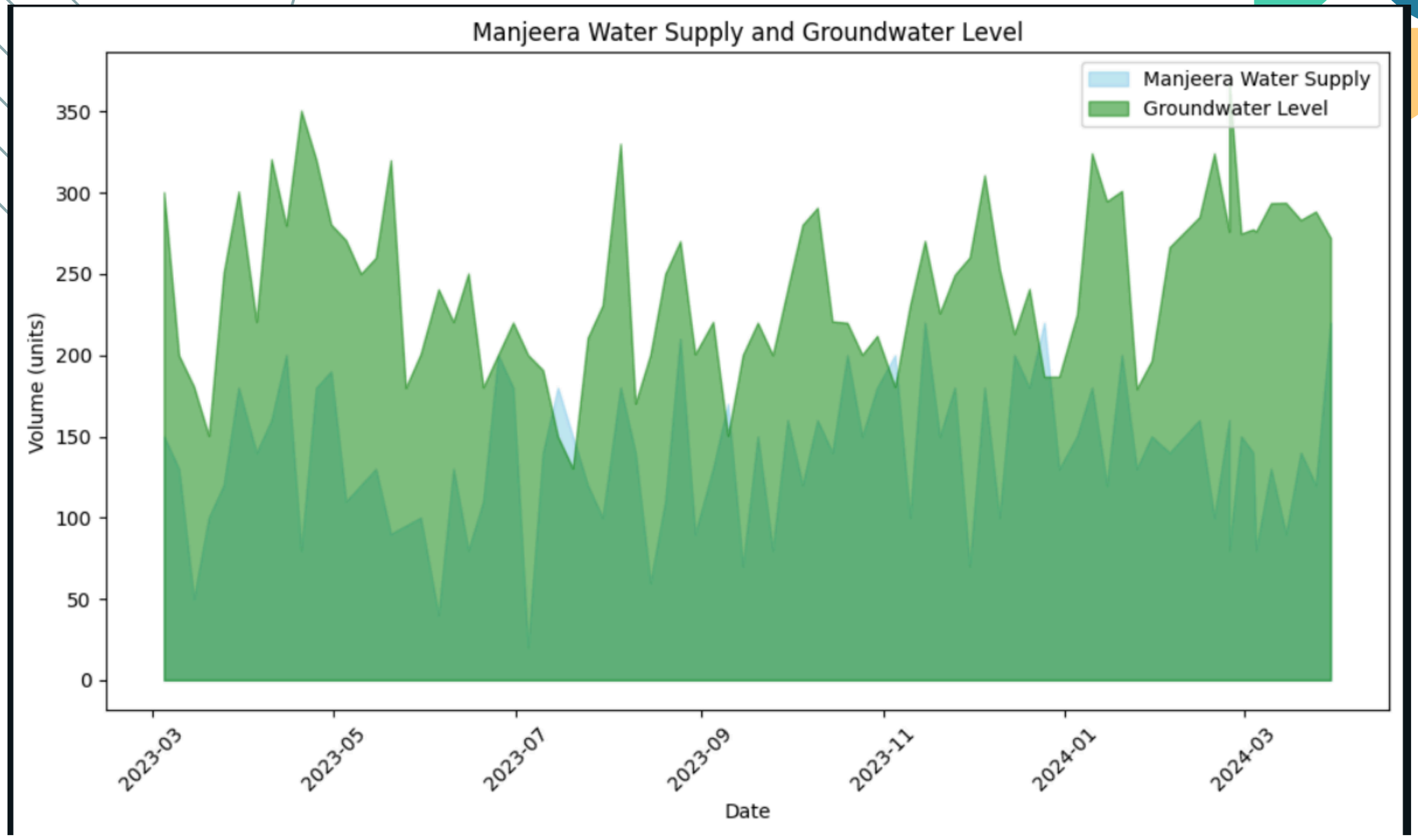
PURCHASE

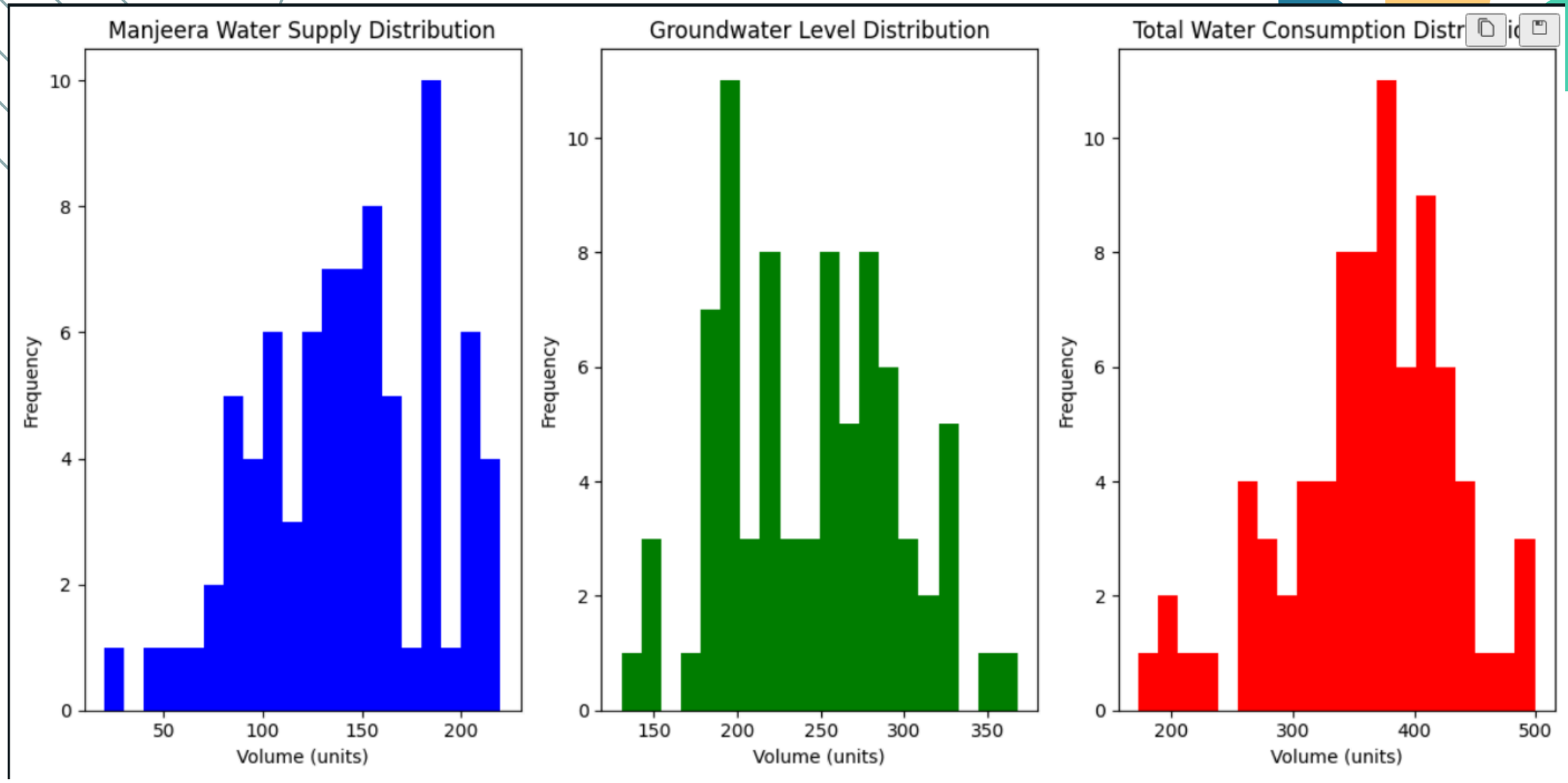


LABS AND WORKSPACE


Total Water Consumption Trend
Total Water Consumption
Volume (units)
500
450
400
350
300
250
200
2023-05
2023-07
2023-09
2023-11
2024-01
2024-03
Date


Manjeera Water Supply and Groundwater Level
Manjeera Water Supply
Groundwater Level
Volume (units)
0
100
200
300
400
500
2023-03
2023-05
2023-07
2023-09
2023-11
2024-01
2024-03
Date


Manjeera Water Supply and Groundwater Level
Manjeera Water Supply
Groundwater Level
Volume (units)
350
300
250
200
150
100
50
0
2023-03
2023-05
2023-07
2023-09
2023-11
2024-01
2024-03
Date


Manjeera Water Supply Distribution
Frequency
Volume (units)
0
2
4
6
8
10
50
100
150
200
Groundwater Level Distribution
Frequency
Volume (units)
0
2
4
6
8
10
150
200
250
300
350
Total Water Consumption Distri
Frequency
Volume (units)
0
2
4
6
8
10
200
300
400
500

04 - CONSEQUENCES

- Health risks associated with consuming water high in TDS, including digestive issues, mineral imbalances, and long-term health concerns.
- Impact on academic and work performance due to discomfort and illness caused by contaminated water.
- Damage to the college's reputation and credibility, affecting student enrollment and institutional growth.

05 - PROPOSED SOLUTION

- Improving Water Quality: Implement measures to address the TDS levels in drinking water, such as enhanced filtration systems or regular testing and treatment.
- Building Trust: Enhance communication and transparency regarding water quality testing results and efforts taken by the management to improve it.
- Promoting Sustainable Practices: Launch awareness campaigns to educate students and staff about the techniques of water conservation and encourage the use of refillable water bottles.

ML MODEL

- To predict the amount of water to be drawn for the next upcoming months and to reduce the water wastage
- The model uses linear regression to predict the values and the mean square error for the predicted value of water usage - 0.086

07- BENEFITS

- Assurance of safe and clean drinking water for all members of the college community.
- Improvement in health and well-being, leading to enhanced academic and work performance.
- Reducing water wastage and also plastic wastage.
- Can predict the actual amount of water that is required to draw

08 - CONCLUSION

- In conclusion, addressing water consumption and drinking issues in our college campus is crucial for the health, well-being, and reputation of our institution.
- By implementing the proposed solutions and fostering a culture of transparency and accountability, we can overcome the challenges and ensure a sustainable water supply

THANK YOU