PROJECT REPORT TEMPLATE

PLUGGING INTO THE FUTURE: AN EXPLORATION OF ELECTRICITY CONSUMPTION PATTERNS

1. INTRODUCTION

Energy plays a major role in determining economic growth and development of nation. We must use an energy source to produce electricity. India is the world's third largest producer and third largest consumer of electricity. Electric energy consumption is energy consumption in the form of electrical energy. Electricity consumption represents the amount of electrical energy that has been consumed over a specific time, in units of KWh. Renewable power plants, which also include large hydroelectric plants, constitute 35.86% of India's total installed capacity.

1.1 Overview

Topic of electricity consumption in India is a well-researched area, with many studies having been conducted to understand consumption pattern and trends. Residential sector was the largest of electricity followed by the commercial, industrial, transportation and other purposes. Coal is the number one energy source used for generating electricity. India ranks 6th globally in hydropower generation.

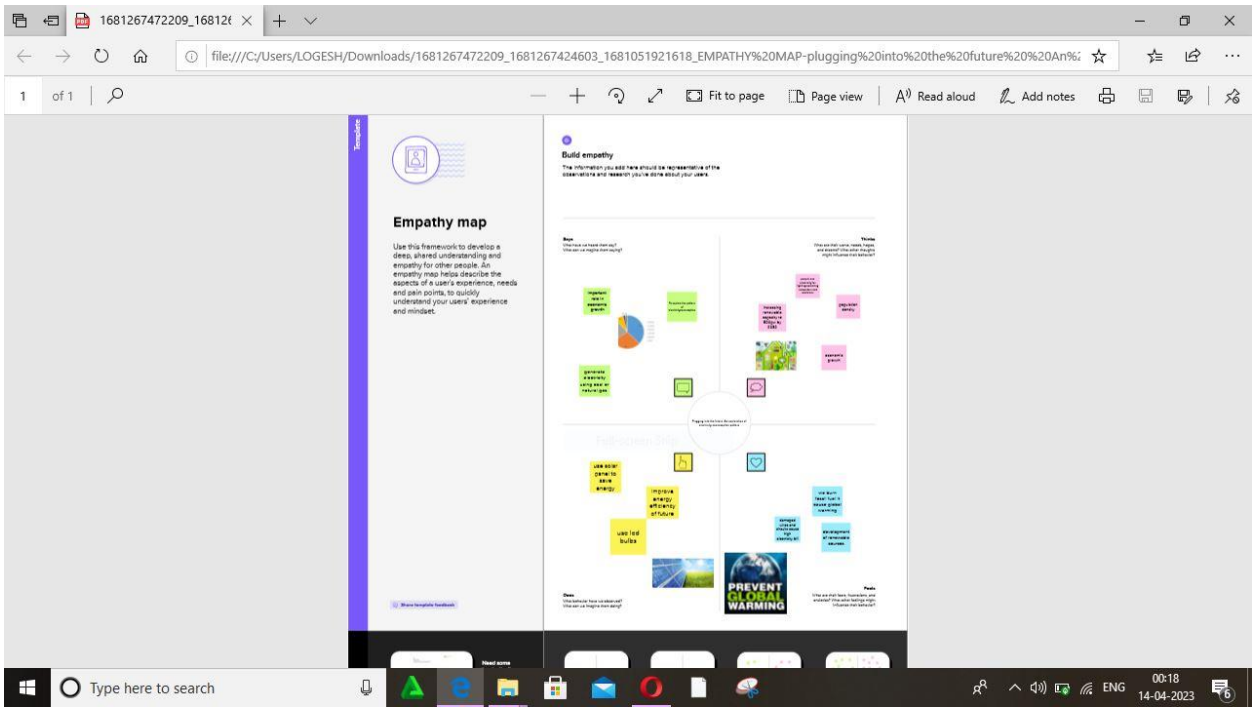
This project is based on analyzing electricity consumption in India from January 2019 till 5th December 2020. This electricity consumption data contains each states of India, based on this data State wise and overall electricity consumption in India will be analysed.

1.2 Purpose

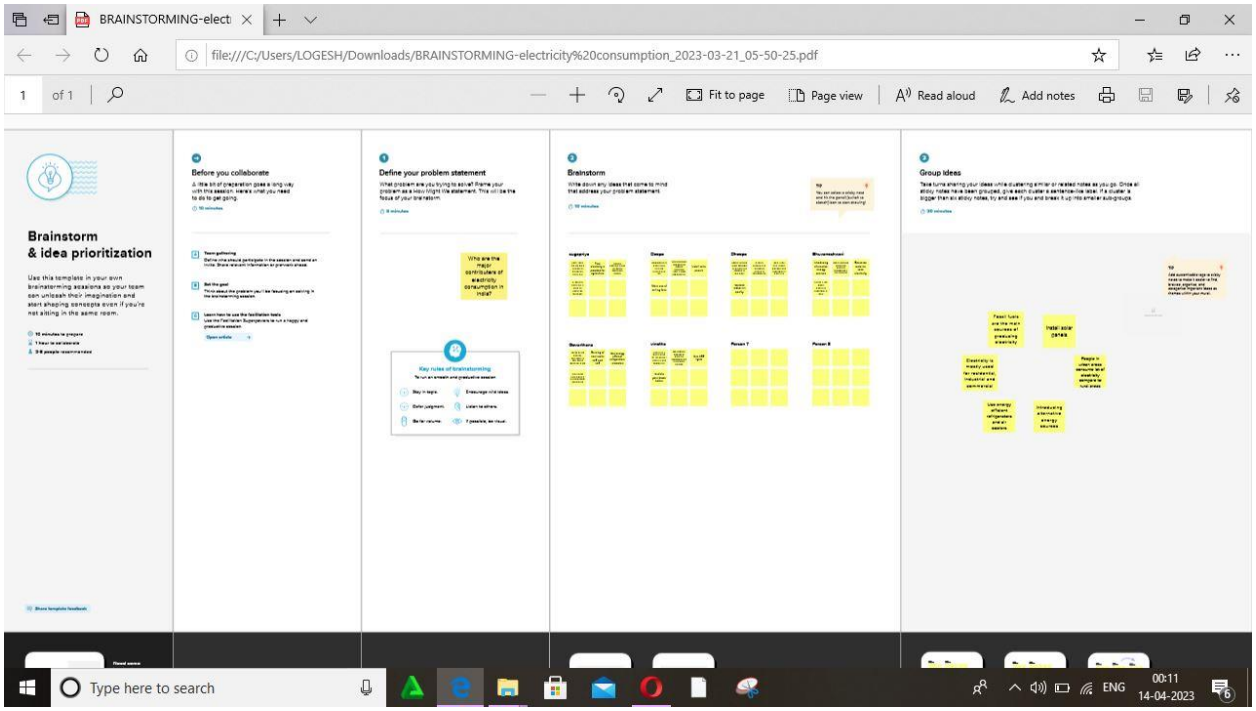
This project is based on the description and analysis of electricity consumption pattern. The purpose is to analyzing Electricity Consumption in India from January 2019 to December 2020. The dataset contains a record of Electricity Consumption in each states of India. We are going to analyze state wise, Region wise and overall Electricity Consumption in India. To identify current patterns of electricity consumption in different regions and sectors of India. This information can be used to identify areas where consumption is high and areas where it is low.

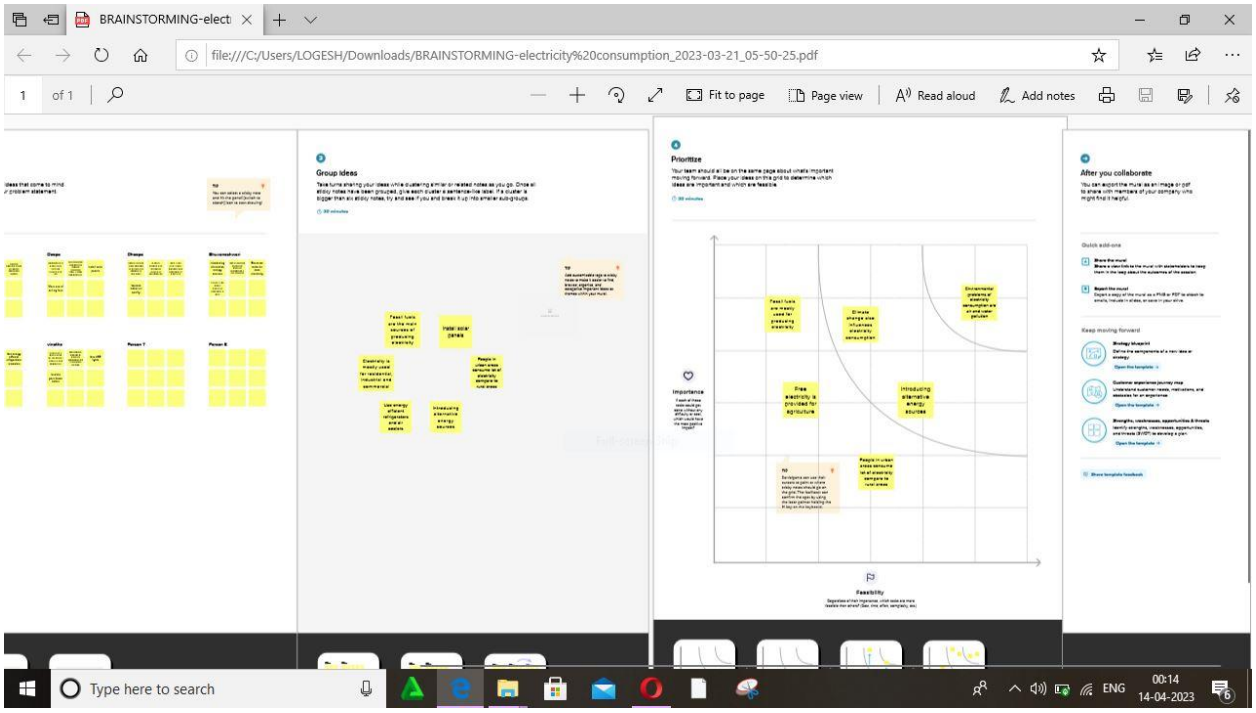
2. PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy Map



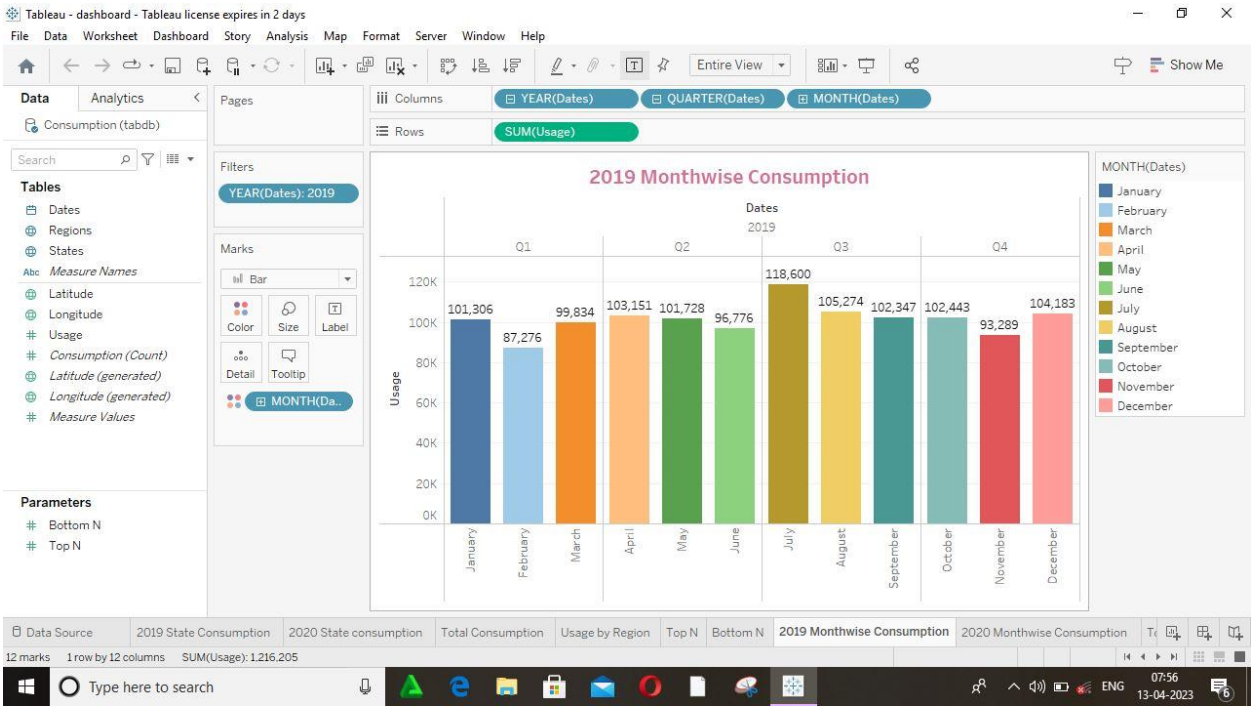
2.2 Ideation & Brainstorming Map



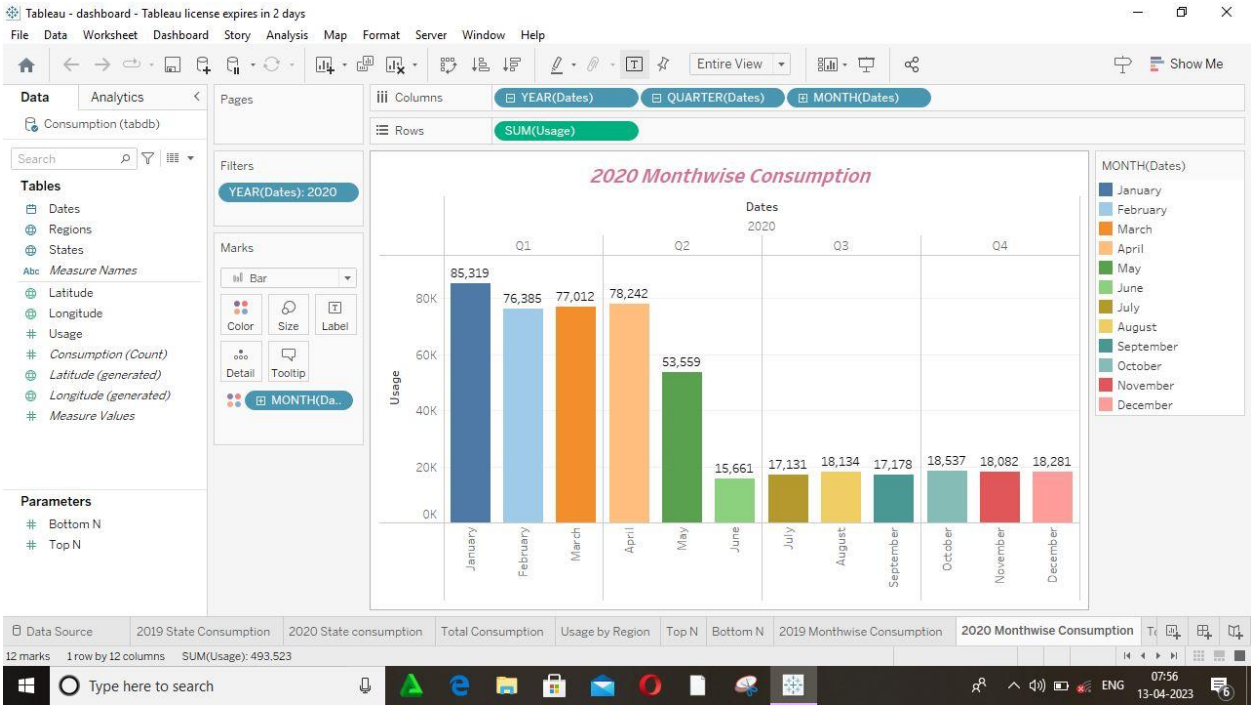


3.RESULT

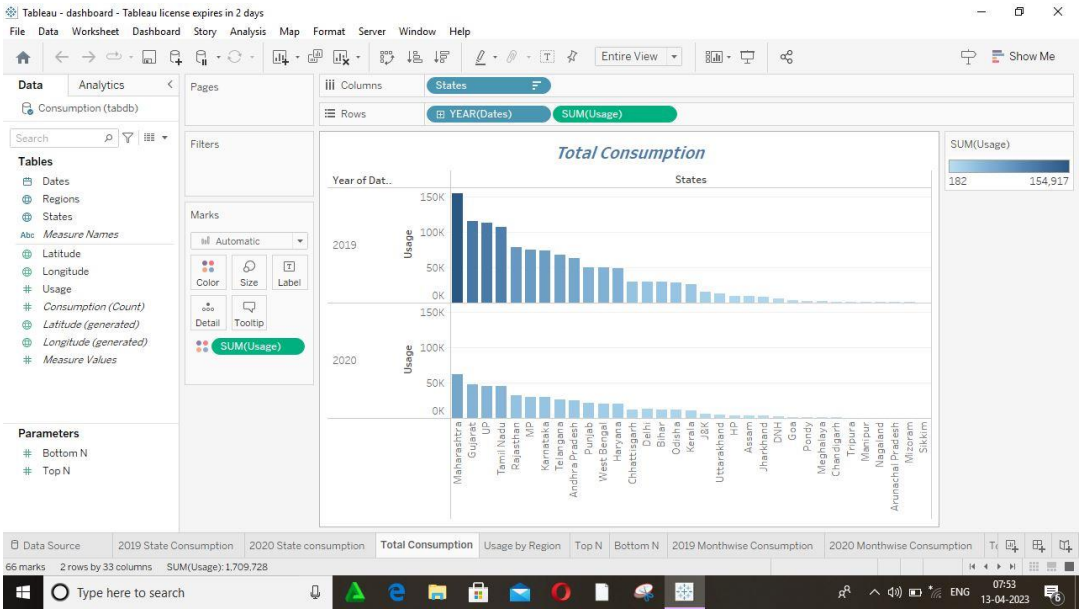
In India, electricity consumption is high due to population, urbanization and industrialization. By providing access to electricity, the analysis can help to improve the quality of life for people living in areas without access to electricity.



In 2019 month wise consumption the month of July is Highest and the total consumption in month February is lowest. In the month of December, electricity consumption is highest next to July.



In 2020 month wise electricity is high in the month of January in High and in the month of June is lowest.



From total electricity consumption graph, Maharashtra is the highest electricity consumption state in India. Tamilnadu is the fourth highest electricity consumption state in India.

4. ADVANTAGES & DISADVANTAGES

Advantages

- This project help businesses identify market opportunities and develop strategies to meet the growing demand for electricity in India.
- During lockdown, Electricity Consumption in In India is Lowest.

Disadvantages

- In Maharashtra and Gujarat Electricity Consumption is highest

5. APPLICATIONS

This analysis helps to improve the quality of life for people in living areas without access to electricity By understanding consumption patterns and trends, analysis helps to identify market opportunities and develop strategies to meet the growing demand for electricity in India.

6. CONCLUSION

We conclude that Total Electricity Consumption in western region is highest.

Maharashtra is the highest Electricity Consumption state in India.

Sikkim is the lowest Electricity Consumption state in India.

During lockdown, in the month June Electricity Consumption in India is lowest

7. FUTURE SCOPE

Future scope of electricity is to reach 500 GW of renewable energy capacity by 2030.

Introducing alternative energy sources.

Use solar panels

We use renewable energy sources like biomass, geothermal energy and hydropower to generate electricity.