Analysing Housing Prices In Metropolitan Areas Of India

1. INTRODUCTION

1.1 Project Overview

A metropolitan area is a region house to a densely populated urban core and its less-populated surrounding territories sharing industry, infrastructure and housing .

A metro area usually comprises multiple jurisdictions and municipalities. As social, economic and political institutions have changed, metropolitan areas have become key economic and political regions.

Majorly metropolitan areas are analyzing by Chennai, Bangalore, Mumbai, Kolkata, Delhi, etc.

1.2 Purpose

House price prediction in a metropolitan city in India is a valuable solution for potential home buyers, real estate agents, and investors. By leveraging historical sales data, property details, and location-specific information, a predictive model can accurately estimate house prices. The model's scalability,
Real-time updates, user-friendly interface, and transparency ensure it meets the needs of stakeholders. Integration capability, data privacy, and Cost effectiveness are also important considerations. By addressing these requirements, the prediction model provides reliable insights, empowering stakeholders to make informed decisions in the fast-paced real estate market.

2. LITERATURE SURVEY

2.1 Existing problem

Mumbai :

- High cost of living
- Rush in local trains
- Heavy traffic during peak times.

Delhi:

- Good for students but bad for working professionals due to high cost of living and long travel time.
- Neta type of people so you can't mess with everyone.

Chennai :

- Language problems (if you don't know tamil)
- South indian taste in every dish
- Hot and moist climate
- No atmosphere of celebration of Holi, Diwali, Raksha Bandhan, Navratri , Ganesh etc
- No party culture except some IT areas.

Kolkatta:

- High population
- Low standards of living (except for rich)
- Its leftist area so less of big malls, showrooms and glamour.
- Less party culture.
- High population so chances of pickpocket.

Banglore:

- High traffic
- Airport is far from city
- Spread out city
- Local kannada population who hate hindi speaking people.
- Mostly IT population so you don't get variety of interaction.

- Lots of maternity hospitals as IT population is depressed one i guess .

2.2 **References**

1. Rosen, S. Hedonistic Prices and Implicit Markets: Product Differentiation in Pure Competition. J. Political Econ. 1974, 82, 34–55. [Google Scholar] [Cross-ref]
2. Can, A. Specification and estimation of hedonistic housing price models. Reg. Sci. Urban Econ. 1992, 22, 453–474. [Google Scholar] [Cross-ref]
3. Kang, Y.; Zhang, F.; Peng, W.; Gao, S.; Rao, J.; Duarte, F.; Ratti, C. Understanding house price appreciation using multi-source big biodata and machine learning. Land Use Policy 2021, 111, 104919.
4. Yacim, J.A.; Boshoff, D.G.B. A Comparison of Bandwidth and Kernel Function Selection in Geographically Weighted Regression for House Valuation. Int. J. Technol. 2019, 10, 58. [Google Scholar]
5. Tobler, W.R. A Computer Movie Simulating Urban Growth in the Detroit Region. Econ. Geogr. 1970, 46, 234–240. [Google Scholar]

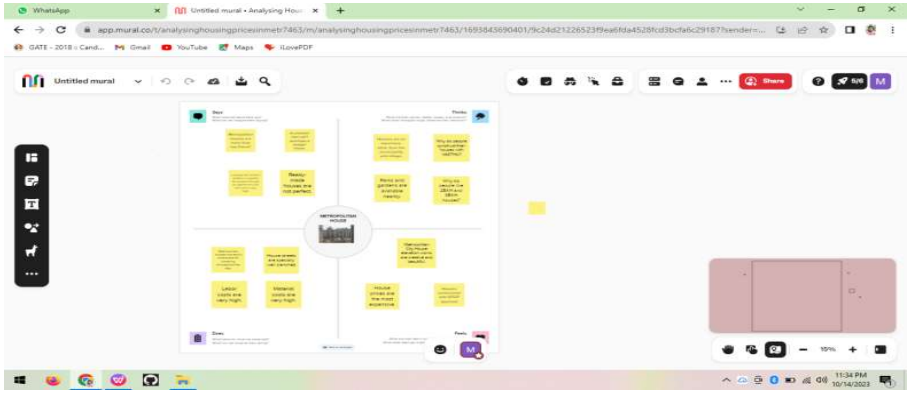
2.3 Problem Statement Definition

An area having a population of 10lakh or 1 million or more,comprised in one or more districts and consisting of two or more municipalities or panchayat s or other contiguous areas,specified by the governor by public notification to be a metropolitan area.

3. IDEATION & PROPOSED SOLUTION

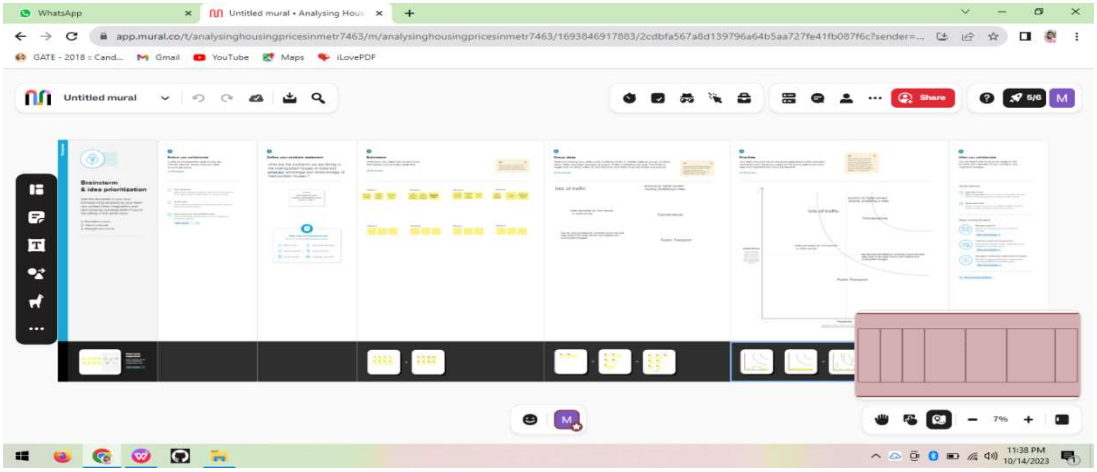
3.1 Empathy Map Canvas

Use this framework to empathize with a customer,user or any person who is affected by a tom's work Document and discuss your observations and note your assumptions to gain more empathy for the people you serve



3.2 Idealization& Brainstorming

Idealization is commonly more thought of as being an individual pursuit, while brainstorming is almost always a group activity

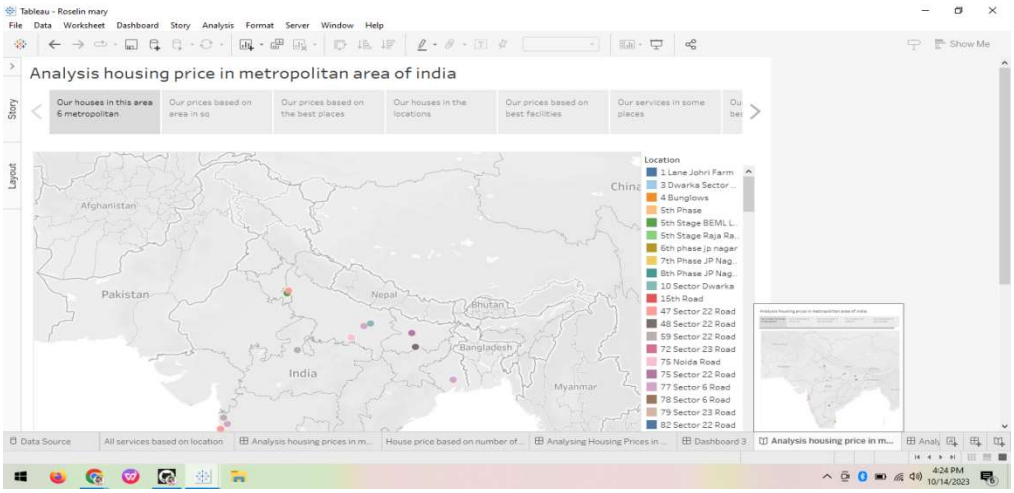


5.PROJECT DESIGN

5.1 Data Flow Diagrams & User Stories

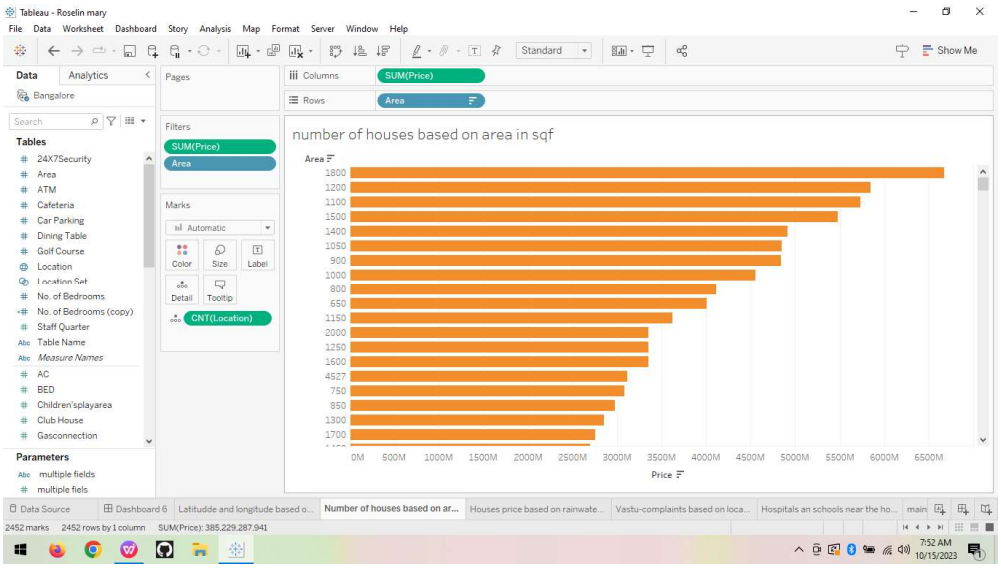
Activity :1.1

Latitude and longitude based on location



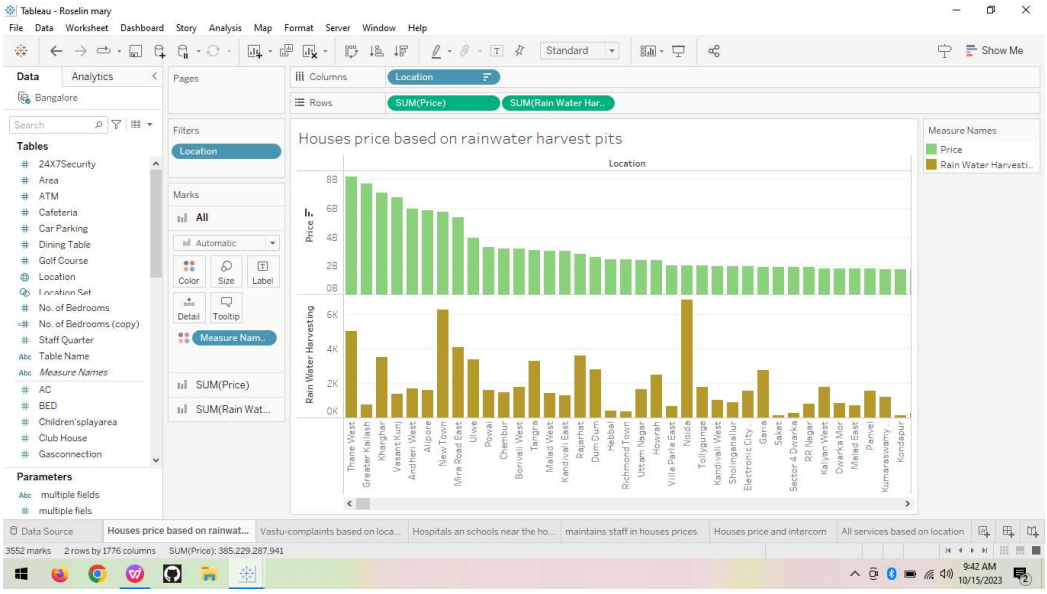
Activity : 1.2

Number of houses based on area of sq



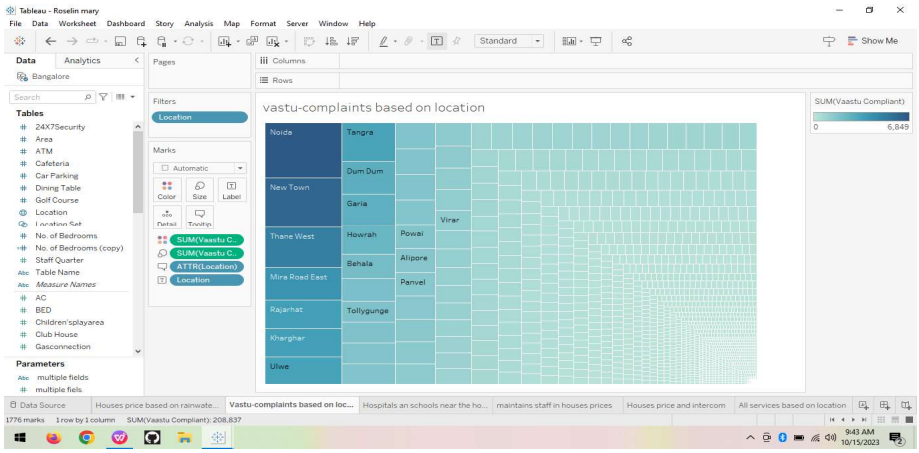
Activity1:3

Houses price based on rainwater pits



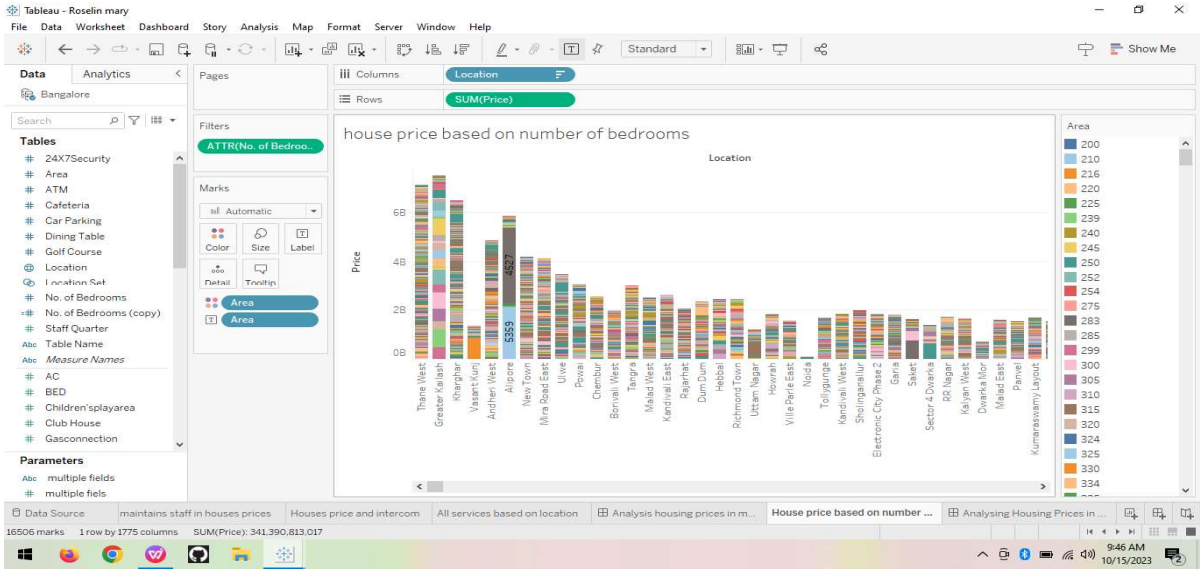
Activity 1.4

Vastu- complaints based on location



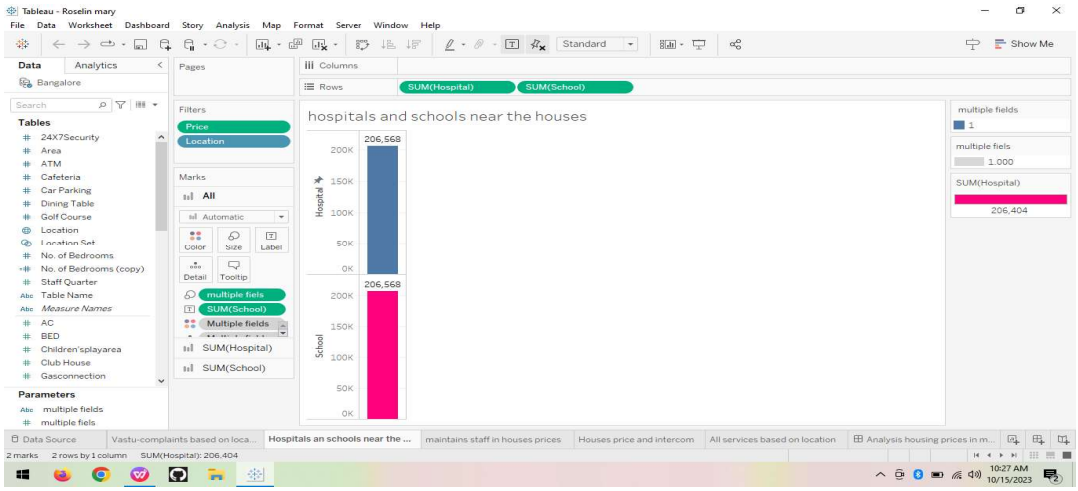
Activity 1.5

House price based on number of bedrooms



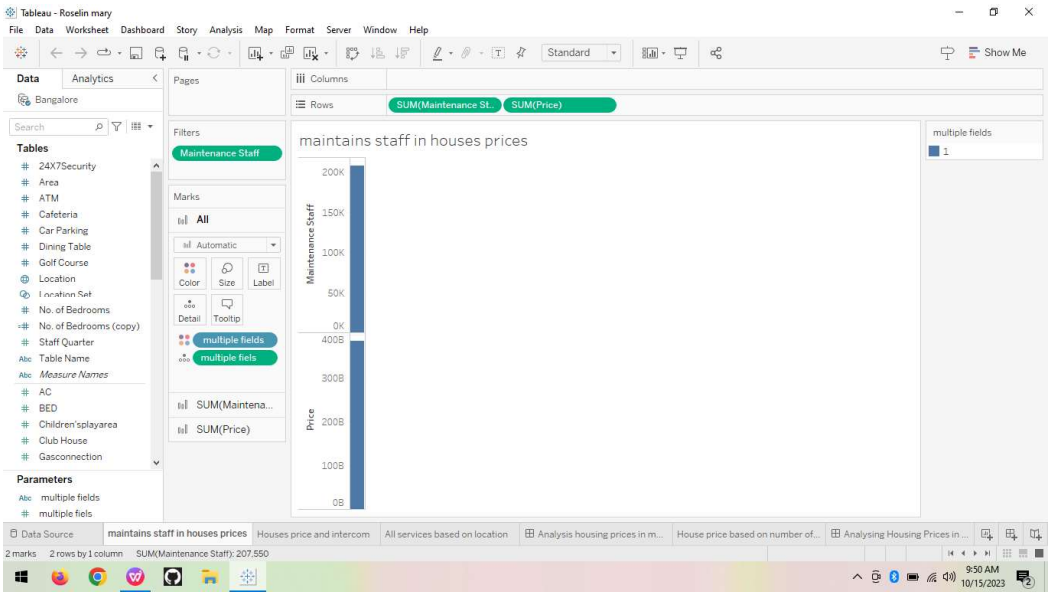
Activity 1.6

Hospitals and schools near the houses



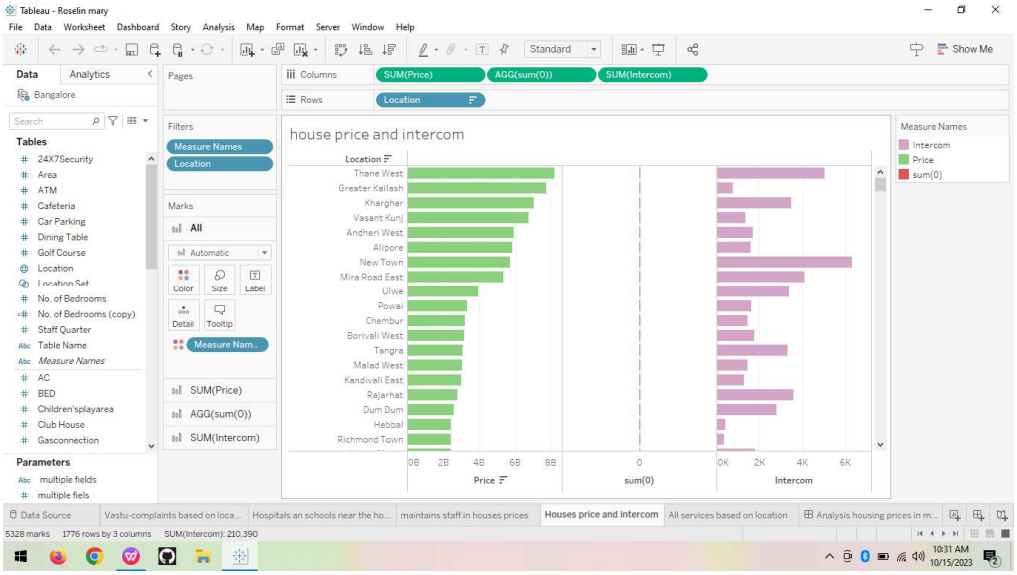
Activity 1.7

Maintains staff in houses prices



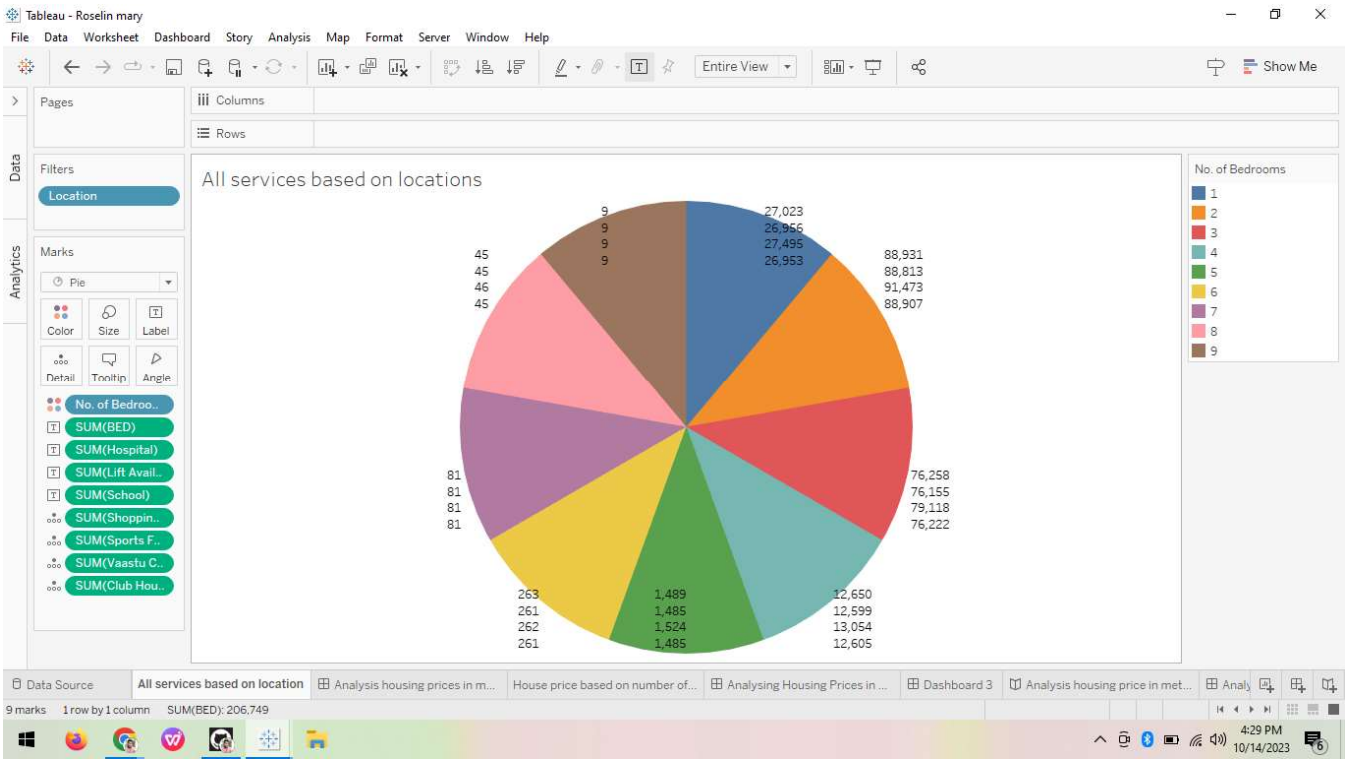
Activity 1.8

House price and intercom



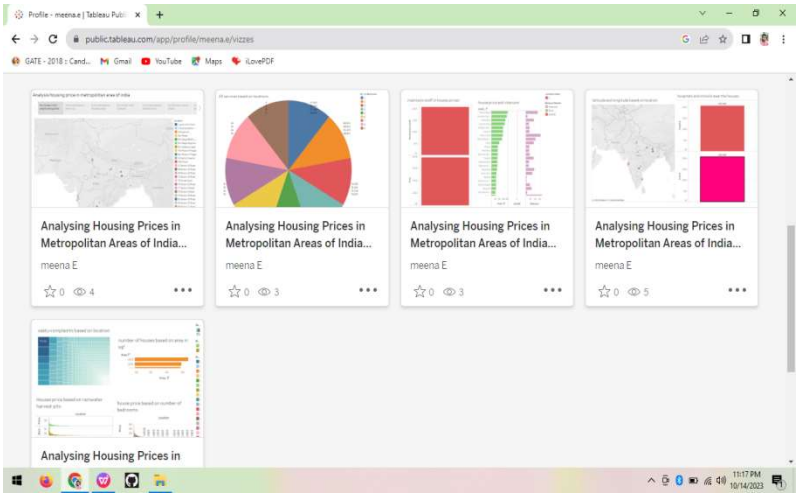
Activity 1.9

All services based on locations



6. RESULTS

6.1 **Output Screenshots**



7.ADVANTAGES & DISADVANTAGES

Advantages :

- High-speed public transit system in the form of Metro/Monorail/Metrolite/RRTS/MRTS
- High-speed internet access in the form of Fiber and 5G
- One-day delivery of products including essentials like medicines and groceries
- Facilities of doctor-at-home and ease of access of medical
- Wide varieties of restaurants to order from
- Presence of an International Airport
- Head Offices of institutions, banks, boards, etc. are located
- Modern Infrastructure and better application of technology

Disadvantages :

- High cost of rent and food
- Overpopulation and pollution
- Increased competition and societal callousness

8.CONCLUSION

Hence we can say that metropolitan cities population is increasing day by day in India with full support of opportunities and style of living. But, metropolitan cities is growing faster and faster that became barriers for balance, equitable and inclusive development.

9.FUTURE SCOPE

Through natural growth, metropolitan cities migration, and re-categorization of what constitutes a “city,” India expects to add 416 million people to its cities by 2050—the largest projected increase in the world, Thatching says. Over half of India's metropolitan cities population lives in towns with less than 500,000 people.

10.APPENDIX:

PROJECT DEMO LINK:
https://drive.google.com/file/d/1OFKD7LNwQtB8MofN4Jy19z4kby4vfMDt/view?usp=sharing

GITHUB LINK:
https://github.com/Roselin07/Meena-E