

Codebasics Resume Project Challenge – Data Analytics Project

This Project is a Codebasics Resume Project Challenge run by Codebasics. Hundreds of participants across the world participate in this and their work is then recognised by the Codebasics team and their connections on LinkedIn worldwide.

About The Project

The project is about Telangana State Revenue of Document and E-stamp, Sales performance of different type of vehicles and the investment.

Telangana State –

Telangana a landlocked new state established in 2014 separated from Andhra Pradesh as the 29th state of India. The State has an area of 1,12,077 sq. Km. and has a population of 3,50,03,674 (2011 Census). Hyderabad is the capital of Telangana. Telangana is surrounded by Maharashtra and Chhattisgarh in the North, Karnataka in the West and Andhra Pradesh in the South and East directions. Major cities of the State include Hyderabad, Warangal, Nizamabad, Nalgonda, Khammam and Karimnagar.

Approach

Understanding the Problem Statement: Begin by thoroughly reading the challenge prompt to identify the key objectives and deliverables, focusing on the specific tourism-related data aspects you need to analyze. **Data Loading and Exploration:** Import the dataset into MySQL (XAMPP). Explore the data by examining the structure, columns, and basic statistics. This helps you identify key variables and potential areas of analysis.

Data Cleaning: Address any inconsistencies in the dataset, such as missing values, duplicates, or incorrect data types. This step ensures that your data is accurate and reliable for analysis.

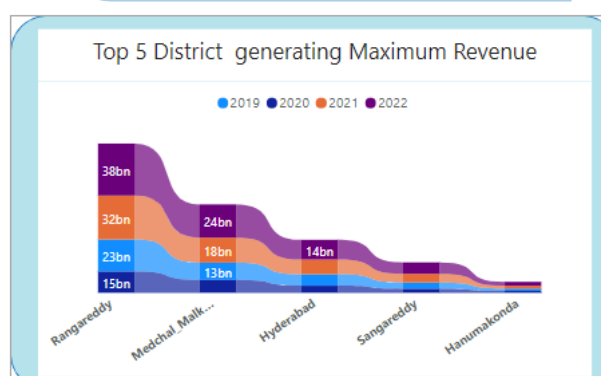
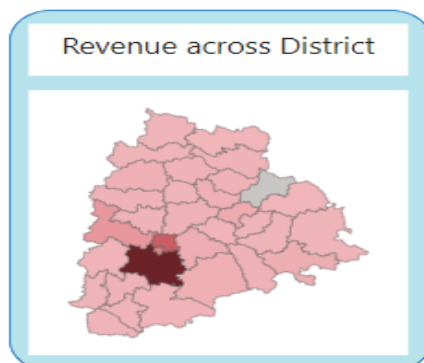
Analysis and Insights Generation: Use SQL queries to perform various analyses, such as calculating tourist trends, segmenting by regions, or identifying popular attractions. Focus on deriving insights that align with the project objectives.

Problem Statement & Solutions

A. Stamp Registration

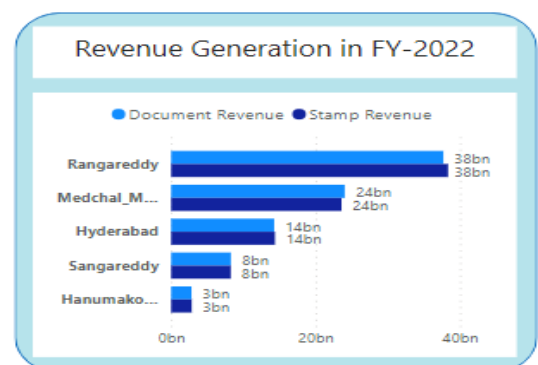
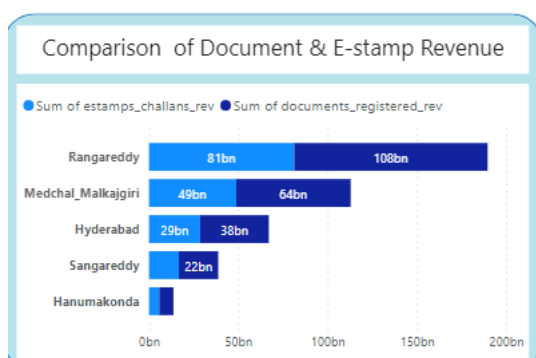
1. How does the revenue generated from document registration vary across districts in Telangana? List down the top 5 districts that showed the highest document registration revenue growth between FY 2019 and 2022.

Rangareddy District shows the highest Registration Revenue 108 billion in Financial year 2019-22. And the Hyderabad is in the 3rd place.

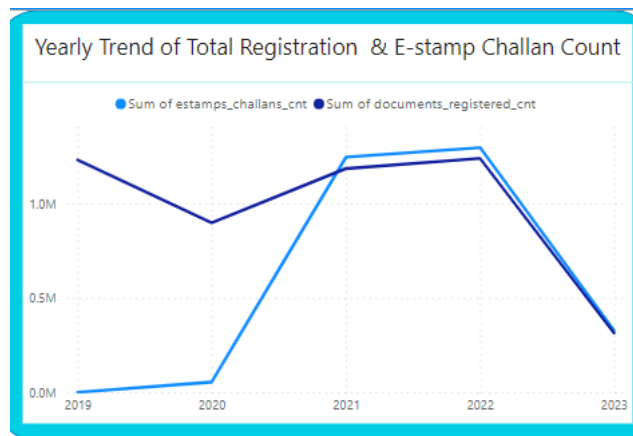


2. How does the revenue generated from document registration compare to the revenue generated from e-stamp challans across districts? List down the top 5 districts where e-stamps revenue contributes significantly more to the revenue than the documents in FY 2022?

Rangareddy is the District where the revenue generation of Document & E-stamp is maximum.



3. Is there any alteration of e-Stamp challan count and document registration count pattern since the implementation of e-Stamp challan? If so, what suggestions would you propose to the government.



In This Digital Era E-stamp Challan is alternative way to pay tax through the internet. In 2020 the implementation of E-stamp Challan started in Telangana the count of document challan registration decreased compare to 2019.

In 2019 Document registration 12 Lakh but 2020 it was 8.5 Lakh. But again next year the E-stamp registration 12 Lakh and Document registration is around 11 Lakh.

In India we developed but at this time everyone is not Techno friendly who Pay the tax on Digitally mode. So I suggested to the Government Both way are important and should running continue for next few years.

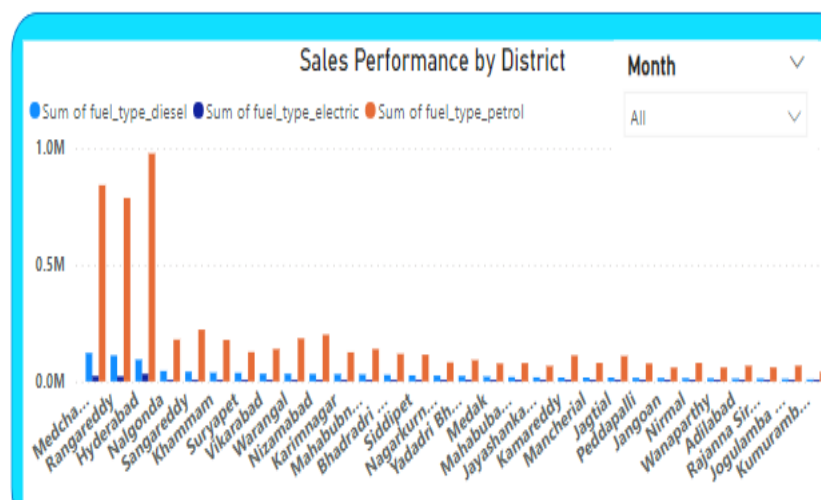
4. Categorize districts into three segments based on their stamp registration revenue generation during the fiscal year 2021 to 2022.

Category wise Stamp Revenue 2021-22		
district	stamp 2021-22	Revenue Category
Adilabad	723003081	Low
Bhadradi Kothagudem	540722552	Low
Hanumakonda	4959670232	Medium
Hyderabad	25267992981	High
Jagtial	1079332319	Medium
Jangoan	747428965	Low
Jayashankar Bhupalpally		Low
Jogulamba Gadwal	603996030	Low
Kamareddy	859661958	Low
Karimnagar	263977624	Medium
Khammam	3646844602	Medium
Kumurambheem Asifabad	133420327	Low
Mahabubabad	666572041	Low
Mahabubnagar	1981371785	Medium
Mancherial	1105983406	Medium
Medak	1146081195	Medium
Medchal_Malkajigiri	42344075412	High

B. Transportation

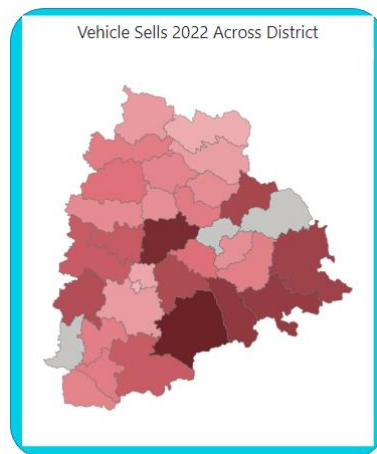
5. Investigate whether there is any correlation between vehicle sales and specific months or seasons in different districts. Are there any months or seasons that consistently show higher or lower sales rate, and if yes, what could be the driving factors? (Consider Fuel-Type category only)

in the vehicle industry of Telangana, the peak demand of Aug, Oct, Nov and lowest sales Rate in April, May. So, in the summer season vehicle industry experienced lower selling of vehicles. It has happened Just because the people are almost maximum time living in the house. And as the India is the traditional country. Where people always waited a festival for shopping like vehicles. And mostly big festivals are coming in winter season like November, Oct. so these months are experience maximum sells of vehicles.

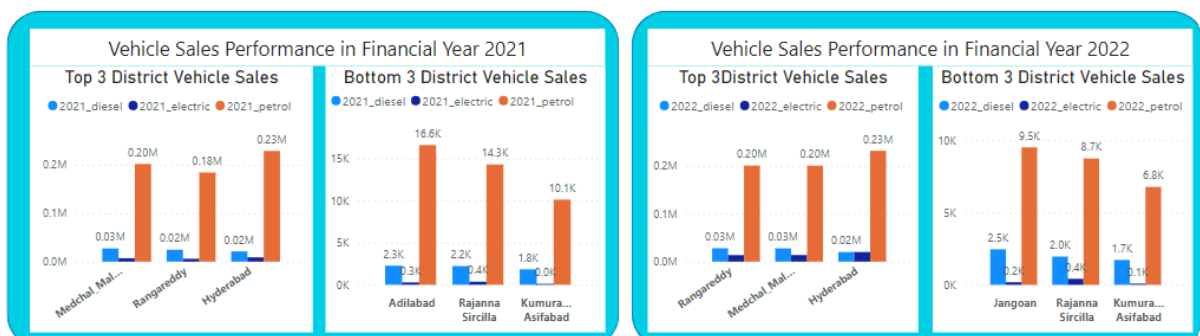


6. How does the distribution of vehicles vary by vehicle class (MotorCycle, MotorCar, AutoRickshaw, Agriculture) across different districts? Are there any districts with a predominant preference for a specific vehicle class? Consider FY 2022 for analysis.

The Nalgonda & Suryapet the district where Bike preference is very high compare to other vehicles. In Nalgonda 27942 Bike sell and next district is Suryapet where around is 19000 bikes sell in Financial year 2022 .



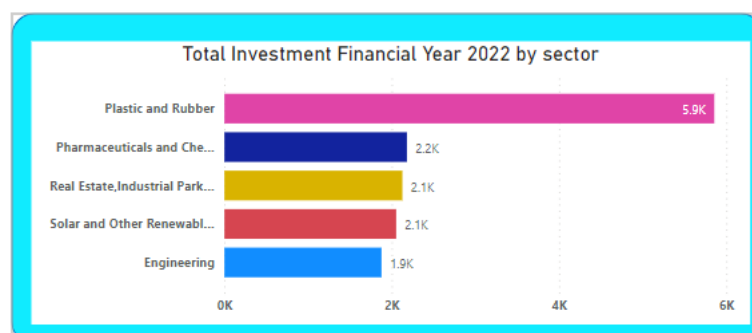
7. List down the top 3 and bottom 3 districts that have shown the highest and lowest vehicle sales growth during FY 2022 compared to FY 2021? (Consider and compare categories: Petrol, Diesel and Electric)



C. TS-iPASS (Telangana State Industrial Project Approval and Self Certification System)

8. List down the top 5 sectors that have witnessed the most significant investments in FY 2022.

In 2022 these are the top 5 Sector where the investment maximum. In Plastic & Rubber sector got 5.9 thousand cr rupees investment and place the top sector by investment. After that Pharma industry there is 2.2 thousand cr rupees investment. Real estate and Solar energy industry both got almost equal investment 2.1 thousand cr rupees and Engineering sector got 1.9 thousand cr rupees investment.



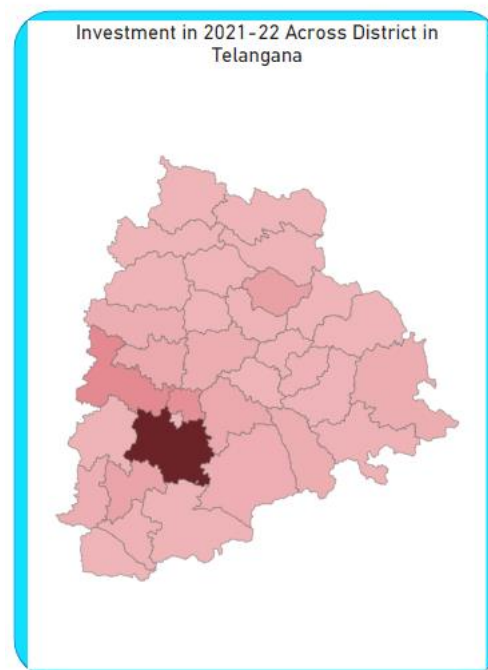
9. List down the top 3 districts that have attracted the most significant sector investments during FY 2019 to 2022? What factors could have led to the substantial investments in these particular districts?

In the top investment district in 2021-22 Rangareddy where more than 47000 cr rupees invested. And after Sangareddy where more than 12000 cr rupees invested. And the 3rd highest investment in Medchal Malkajgiri District where more than 10000 cr rupees invested. These are the top 3 districts where Total investment more than 70000 cr. After Analysing we found mainly 3 Factor which are effected to bring the investment in these districts.

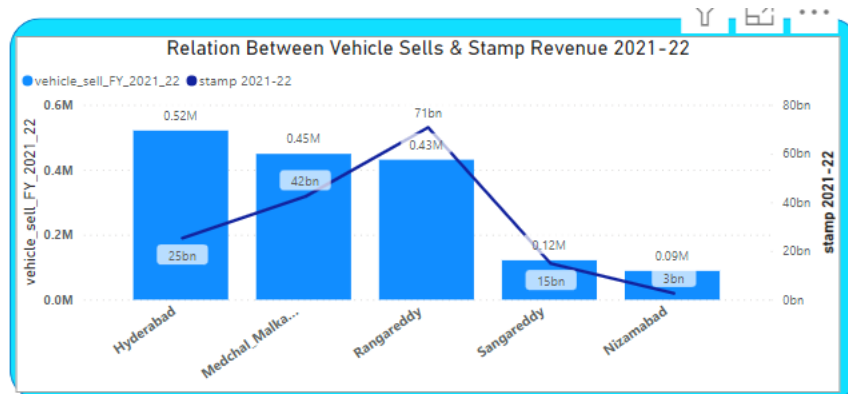
1. Connectivity & Logistics- These districts near to the capital of Telangana so Good connectivity from the capital of the state and efficient network connectivity through Transportation network like Railways, Highways & Ports as well as logistict facility can make easy for business to bring raw materials.

2. Geographic Location – These district might good location that provide access to the local or international market.

3.. Government Policies - Favourable Government policies, subsidy and tax incentives and the local support to bring the investment maximum.



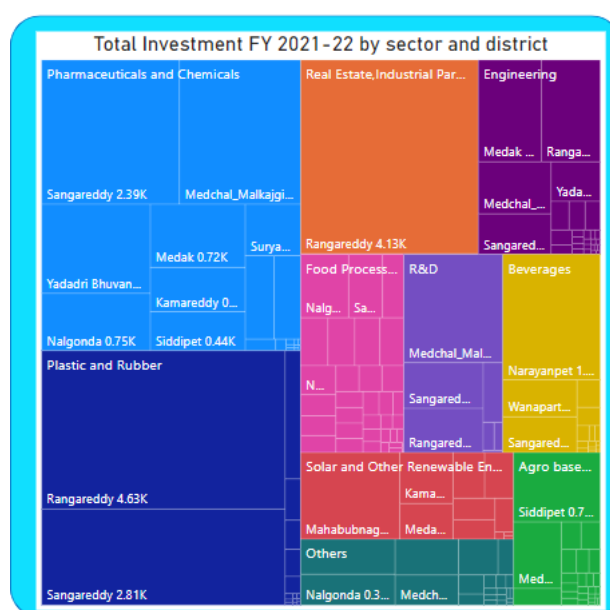
10. Is there any relationship between district investments, vehicles sales and stamps revenue within the same district between FY 2021 and 2022?



As we can see clearly the relation between vehicle sales & stamp Revenue in Financial Year 2021-22. The Hyderabad district are less stamp Revenue but vehicle sales are high. And Rangareddy district are highest generated revenue 71 billion and sales around 43000.

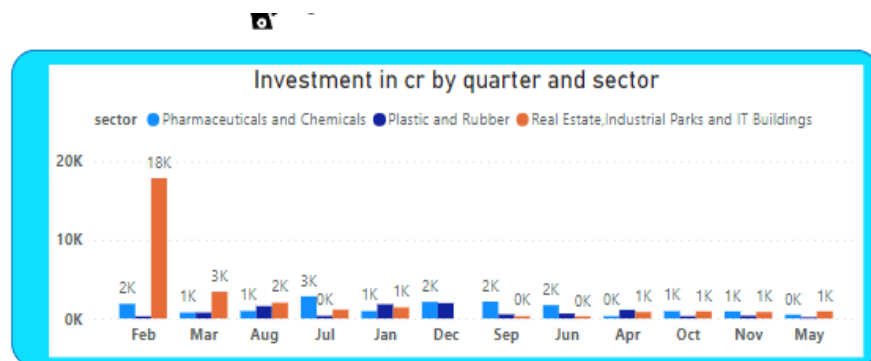
11. Are there any particular sectors that have shown substantial investment in multiple districts between FY 2021 and 2022?

The Pharma industry and Engineering sector shown investment in more than 7 districts in financial year 2021-22. The Pharma industry substantial investment highest in Sangareddy, after that Medak Malkajiri, Yadri, Nalgonda etc. where engineering sector investment in Medak, Sangareddy, Medchal malkajiri etc.



12. Can we identify any seasonal patterns or cyclicality in the investment trends for specific sectors? Do certain sectors experience higher investments during particular months?

in February Real Estate Sector investment are maximum compare to any other sector or months. And march month are 2nd best for investment in real estate sector.



Secondary Research:

1. What are the top 5 districts to buy commercial properties in Telangana? Justify your answer.

After analysing these data I found some interesting insights, And according to my opinion 5 district in Telangana for the best to buy commercial properties.

1. Rangareddy - Rangareddy is the district nearby the capital of Telangana. This is the district where investment are maximum and industrial development. Developed transportation network appeal for buy commercial properties in Rangareddy.

2. Hyderabad - Hyderabad is the capital of Telangana and well organized and developed city of India known as the IT hub of India. It's connectivity, Business friendly policies, and startup culture making the topmost favourable city of south India for buy the commercial properties.

3. Sangareddy - sangareddy is the district which showing substantial growth in future. It's location and connectivity making the commercial hub city in appealing for making business opportunity.

4. Medak Malkajiri - This city is showing considerable growth after 2018. It offers a strategic location for business making opportunity

5. Nalgonda - Nalgonda is the districts where buy commercial property. This is the city nearby Andhra Pradesh state appealing for the business growth in future.

2. What significant policies or initiatives were put into effect to enhance economic growth, investments, and employment in

Telangana by the current government? Can we quantify the impact of these policies using available data?

Telangana introduced policies and investment to promote the specific sector like as IT, Pharma, and Real Estate Sector.

These policies offer to bring the investment and industry in state.

Telangana government implemented several policies for development purpose. Some policies and insights we have

1. Ts-Ipass (Telangana State Industrial Project Approval and Self Certification System)- This is the flagship initiative the industrial clearance process and facilities for doing business in the state.

After applying Ts-ipass process the approval procedure, reduce difficulties for establishing the industries.

2. T-Hub - T-Hub (Technology Hub) is a premier innovation hub and ecosystem enabler based out of Hyderabad, India. T-Hub leads India's pioneering innovation ecosystem and strives to create impact for startups, corporations and other ecosystem stakeholders. It's mission is to enable and empower an ecosystem hungry for innovation.

3. TSIIC- TSIIC (Telangana State Industrial Infrastructure Corporation) also known as TSIIC is a Telangana State Government initiative for providing infrastructure through development of industrial areas. TSIIC plays the crucial role in the development of infrastructure in the state. it develops industrial parks, special economic zone etc.

4. TSIC - With an aim to cultivate an inclusive innovation ecosystem and bridge the income gap between different strata of society, TSIC designed and implemented various initiatives with major focus around Grassroots and Social Innovation.

3. Provide top 4 insights to Telangana government for sustained growth in the next 5 years

Top 4 Insights

- 1. Investment in Technology and Innovation:** Telangana has made significant strides in the technology sector, with Hyderabad being a major IT hub. To sustain growth, the government should continue to encourage innovation and technology-driven industries. This can include fostering startup ecosystems, promoting research and development, and offering incentives for tech companies to invest in the state.
- 2. Infrastructure Development:** Infrastructure is crucial for economic growth. The government should focus on enhancing transportation networks, including road, rail, and air connectivity, to facilitate the movement of goods and people. This will make the state more attractive to businesses and investors.
- 3. Skill Development and Education:** A well-educated and skilled workforce is a key driver of economic growth. The government should invest in education and vocational training programs to ensure that the workforce remains competitive and adaptable to changing industry demands.
- 4. Sustainable Agriculture and Water Management:** Agriculture plays a significant role in Telangana's economy. Sustainable agriculture practices and effective water management are essential to ensure food security and the livelihoods of rural communities. The government

should promote water conservation techniques, modernize agriculture practices, and invest in irrigation infrastructure.

Top 4 Recommendations

1. **Promote Ease of Doing Business:** Streamlining bureaucratic processes, reducing red tape, and creating a business-friendly environment can attract more investments. The government should continue its efforts to improve the ease of doing business, making it easier for businesses to start and operate in the state.
2. **Diversify the Economy:** While the IT sector is a significant driver of growth, diversifying the economy can reduce dependency on a single industry. Encourage the growth of other sectors such as manufacturing, pharmaceuticals, and tourism to create a more balanced economy.
3. **Focus on Healthcare and Public Services:** The COVID-19 pandemic highlighted the importance of a robust healthcare system. Invest in healthcare infrastructure and ensure access to quality healthcare services for all citizens. Additionally, improve public services like sanitation, water supply, and public transportation to enhance the quality of life.
4. **Environmental Sustainability:** Address environmental challenges such as pollution and climate change. Develop and implement policies that promote clean energy, reduce pollution, and protect natural resources. Sustainable practices not only benefit the environment but also create new economic opportunities.

“Thank You”

