Agenda

- Background/Context

- Getting familiar with Telangena Tourism Cities and their importance with respect to their culture.

- Getting familiar with the input data

- Ad-hoc requests along with the results, visualizations and Insights

Created by Shehryar Gondal

Background/Context

Our Company
Telangana is one of India's leading states and has published its tourism data under its open data policy.

Background
The management noticed that they do not get enough insights to make quick and smart data-informed decisions to increase tourism in Telangena State.
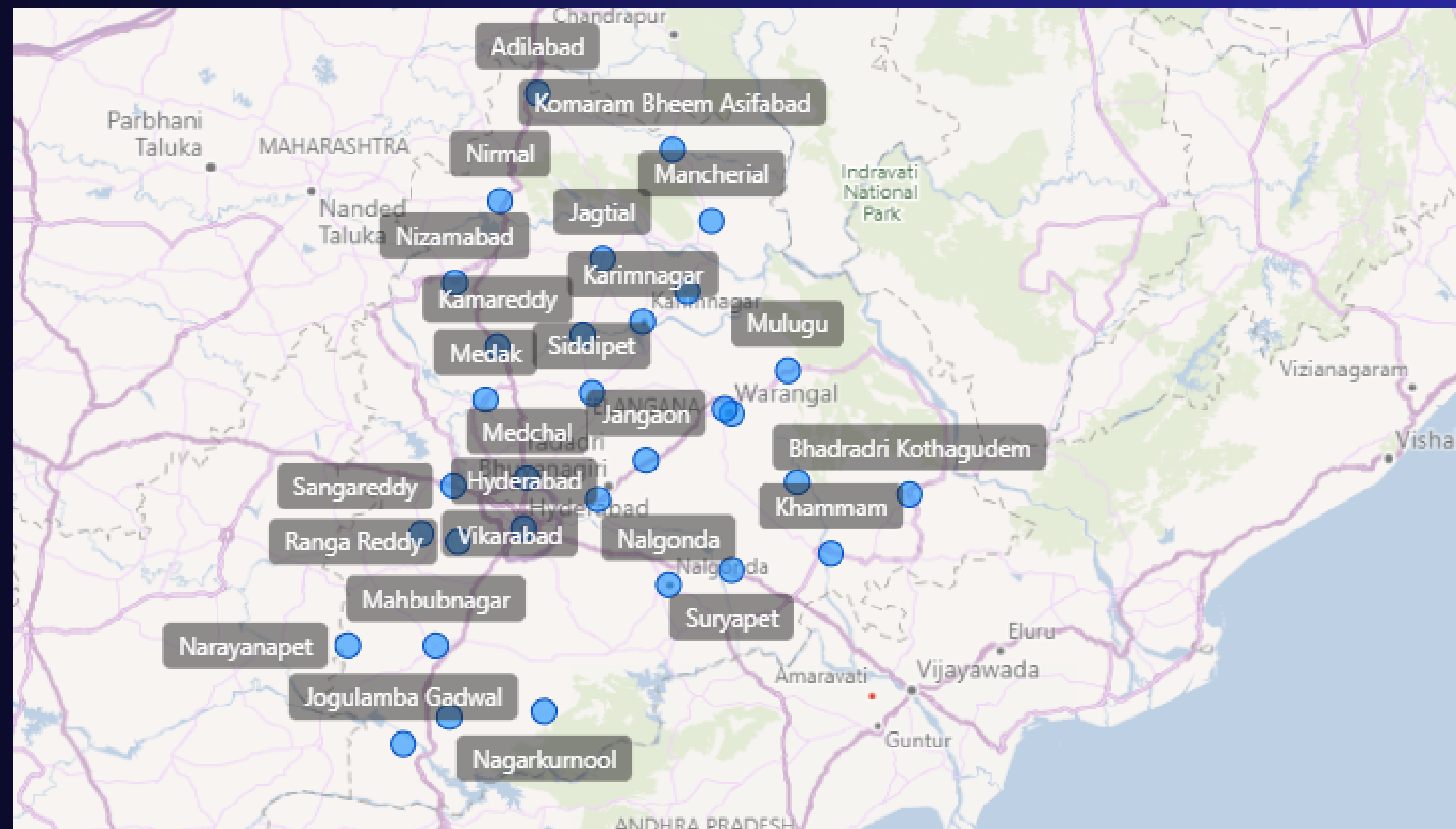
Problem
There are 12 ad-hoc requests for which the Telangena State needs insights.
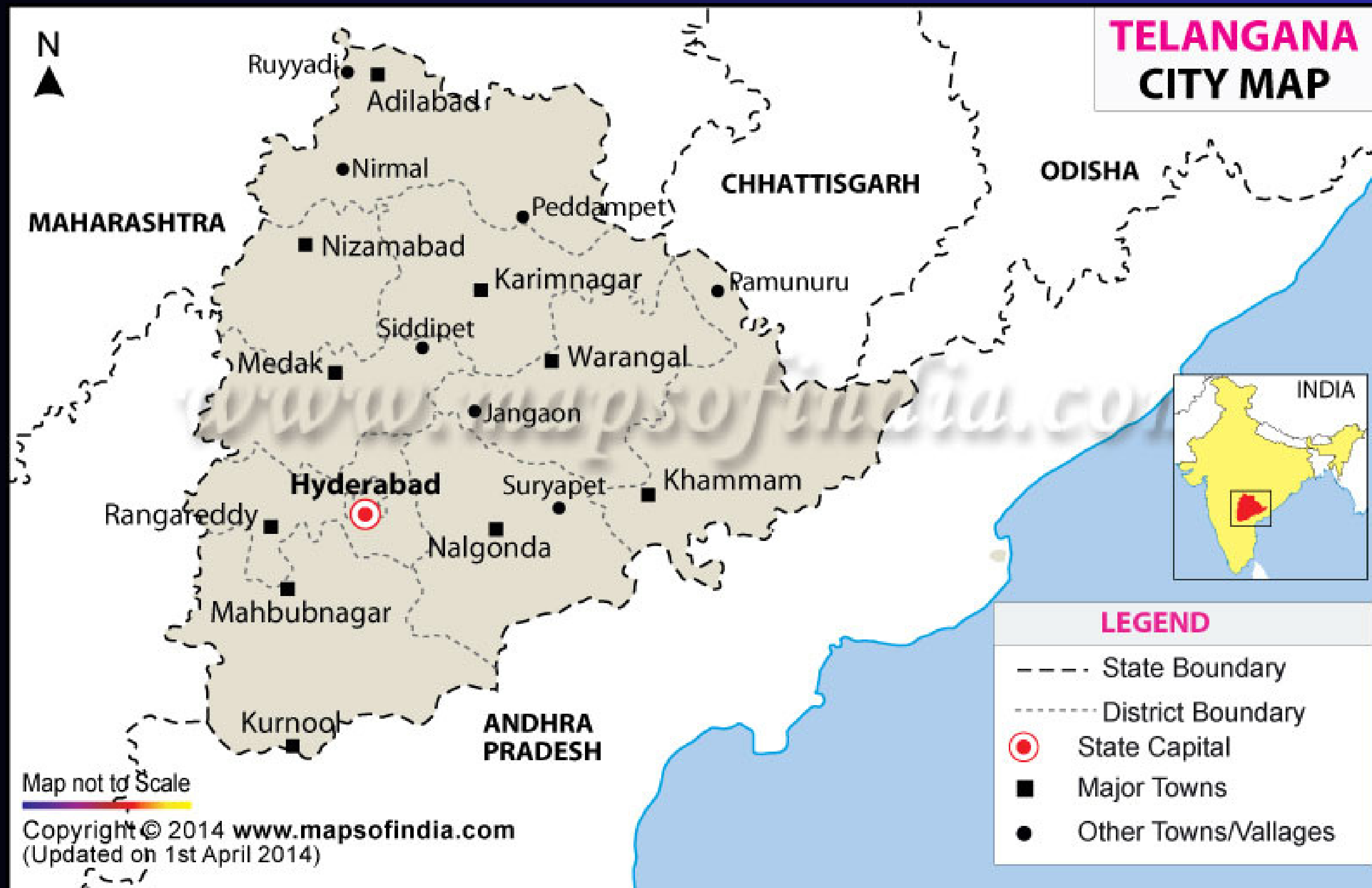
Approach
Use Python , SQL , Power BI to answer these requests. Convert it into visualizations and present the Insights to the toplevel management of Telangena State.

Telangena States

Getting familiar with Telangena Tourism Cities and their importance with respect to their culture.

Telangena State Map

TELANGANA
CITY MAP

N

Ruyyadi
Adilabad

MAHARASHTRA

Nirmal

Peddampet

CHHATTISGARH

ODISHA

Nizamabad

Karimnagar

Ramunuru

Siddipet

Medak

Warangal

Jangaon

INDIA

Hyderabad

Suryapet

Khammam

Rangareddy

Nalgonda

Mahbubnagar

Kurnool

ANDHRA
PRADESH

Map not to Scale

Copyright © 2014 www.mapsofindia.com
(Updated on 1st April 2014)

LEGEND

- - - - State Boundary

.... District Boundary

◉ State Capital

■ Major Towns

● Other Towns/Vallages

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Telangena State Districts and their Tourism Importance

- **Adilabad:** Rich cultural heritage and diverse flora and fauna.
- **Bhadradri Kothagudem:** Ancient temples and scenic beauty.
- **Hyderabad:** Historic landmarks and delicious cuisine.
- **Jagtial:** Unique architecture and handloom products.
- **Jangaon:** Impressive forts and ancient temples.
- **Jayashankar Bhoopalpally:** Stunning waterfalls and wildlife.
- **Jogulamba Gadwal:** Beautiful palaces and temples.
- **Kamareddy:** Archaeological sites and temples.
- **Karimnagar:** Natural beauty and cultural heritage.
- **Khammam:** Scenic hills, forts, and temples.

Telangena State Districts and their Tourism Importance

- Komaram Bheem Asifabad: beautiful waterfalls and wildlife
- Mahabubabad: ancient temples and beautiful landscapes
- Mahbubnagar: stunning natural beauty and historical landmarks
- Mancherial: coal mines and beautiful lakes
- Medak: beautiful fort and several churches
- Medchal: beautiful parks and gardens
- Nagarkurnool: beautiful waterfalls and wildlife
- Nalgonda: ancient temples and beautiful scenic spots
- Nirmal: handicrafts and handloom products
- Nizamabad: beautiful landscapes and ancient temples
- Peddapalli: impressive forts and beautiful temples

These cities offer a wide range of experiences and attractions that make them important to the tourism industry in Telangana.

Getting familiar with the input data

- **The input data includes visitor data, both domestic and foreign, for the years 2016 to 2019. To simplify the data and perform analysis, the foreign visitor data files were merged into one file and the same was done with the domestic visitor data files.**

domestic_vistors_file

- date
- district
- month
- ∑ visitors
- ∑ year
- Millions

Collapse ∧

foreign_vistors_file

- date
- district
- month
- ∑ visitors
- ∑ year
- Millions_foreign

Collapse ∧

# Ad -hoc request,Results, Insights and Visualizations

OUTPUT

REQUEST 1:

1. List down the top 10 districts that have the highest number of domestic visitors overall (2016-2019)?

District	Total_Visitors
Hyderabad	83900960
Rajanna Sircilla	41763276
Warangal (Urban)	30726603
Yadadri Bhongir	26893080
Bhadradri Kothagudem	21600962
Medak	20542639
Jayashankar Bhoopalpally	19632865
Mahbubnagar	17180118
Nirmal	13315796
Jagtial	11303514
Total	**286859813**

Insights
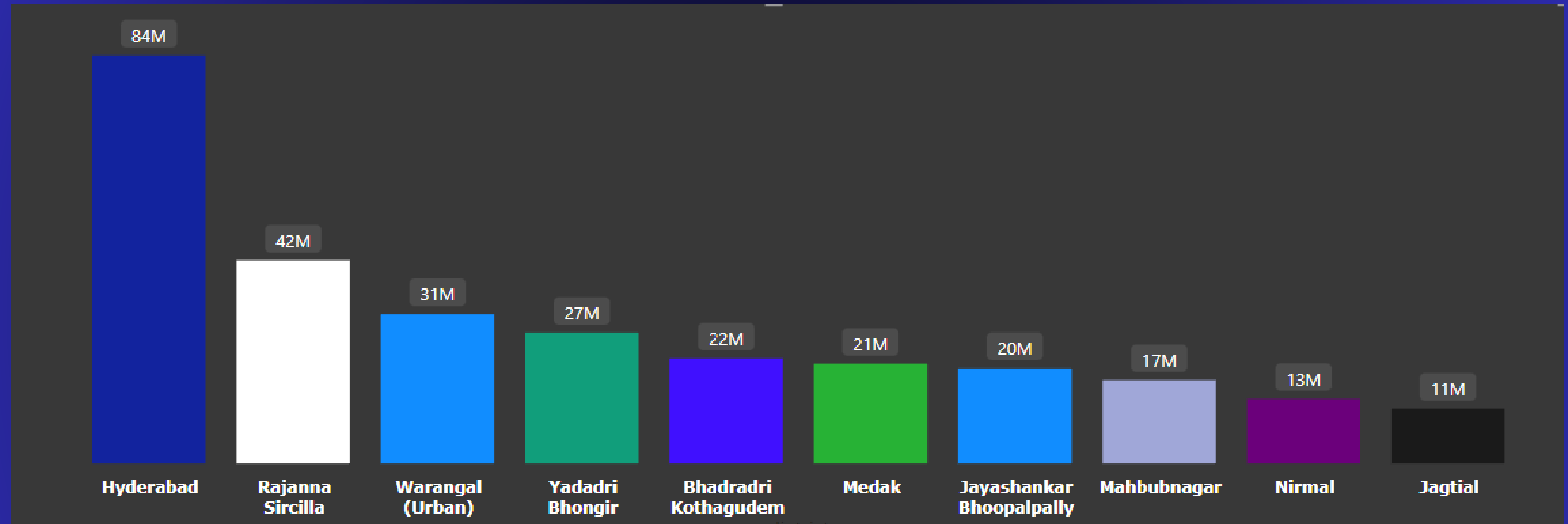
- The percentage of visitors to various districts in a certain area, with Hyderabad having the highest percentage at 29.25%, followed by Rajanna Sircilla at 14.56%, Warangal (Urban) at 10.71%, and Yadadri Bhongir at 9.37%. The remaining districts have lower percentages of visitors, with Jagtial having the lowest percentage at 3.94%.
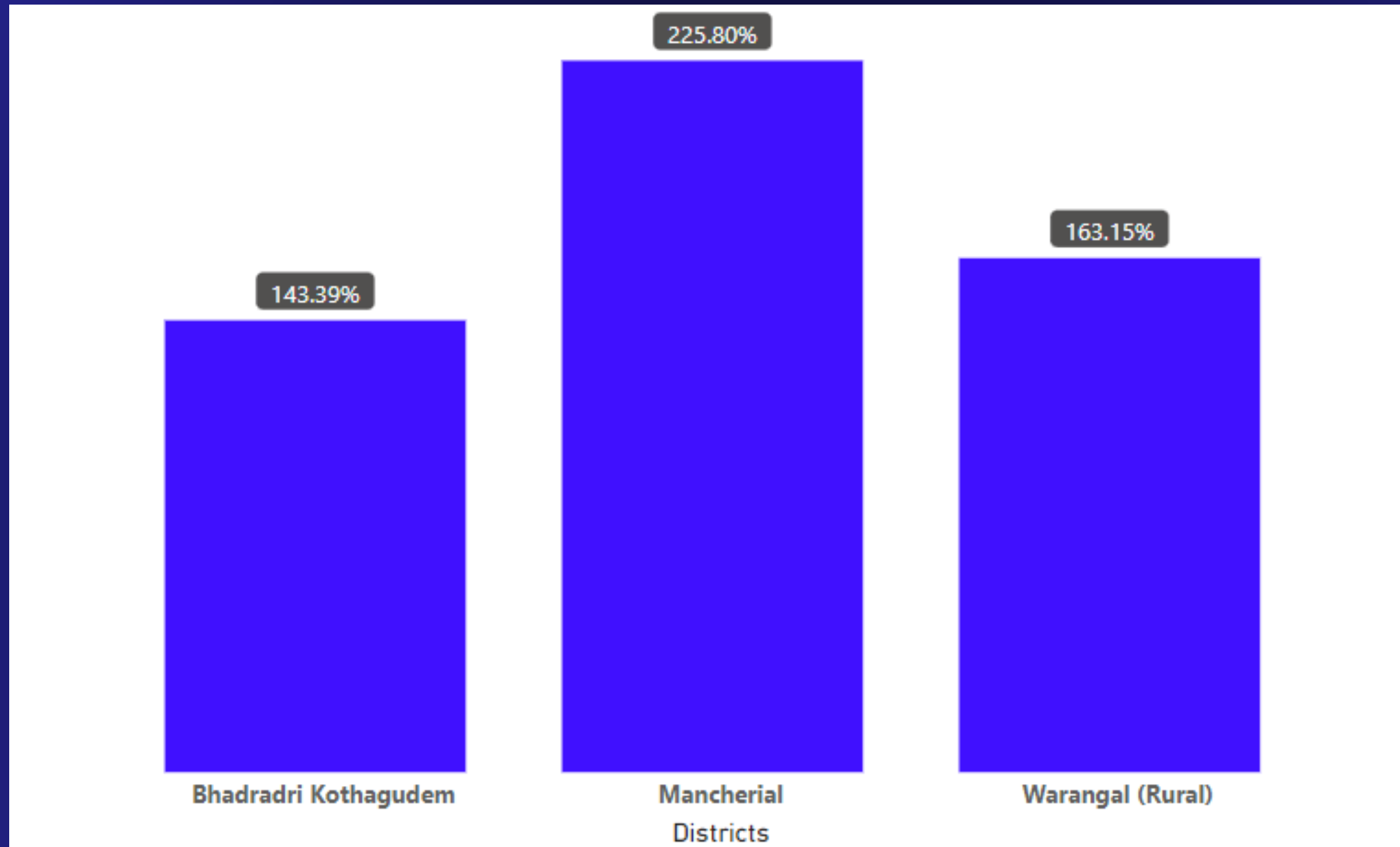
OUTPUT

REQUEST 2:

2. List down the top 3 districts based on compounded annual growth rate (CAGR) of Domestic visitors between (2016-2019)?

district	Sum of visitors	Visitors_in_Millions	CAGR
Warangal (Rural)	819162	0.82M	163.15%
Mancherial	867242	0.87M	225.80%
Bhadradri Kothagudem	21600962	21.6M	143.39%
Total	23287366	23.29M	144.80%

Insights

- **This data shows visitor count and CAGR for three districts - Warangal (Rural), Mancherial, and Bhadradri Kothagudem. Bhadradri Kothagudem has the highest number of visitors with 21.6 million. Mancherial has the highest CAGR at 225.80%, followed by Warangal (Rural) at 163.15%.**
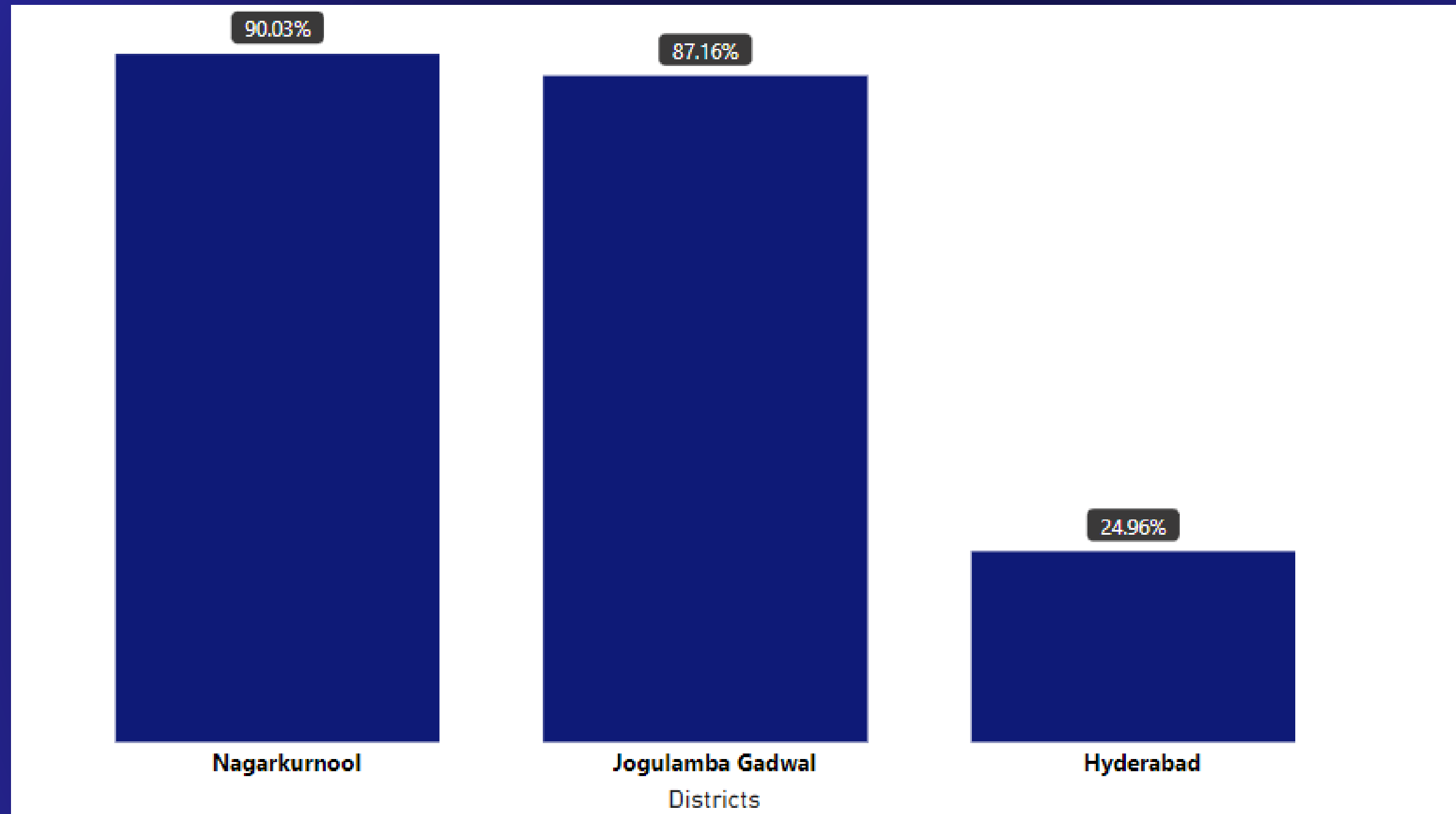
REQUEST 2:

2. List down the top 3 districts based on compounded annual growth rate (CAGR) of Foreign visitors between (2016-2019)?

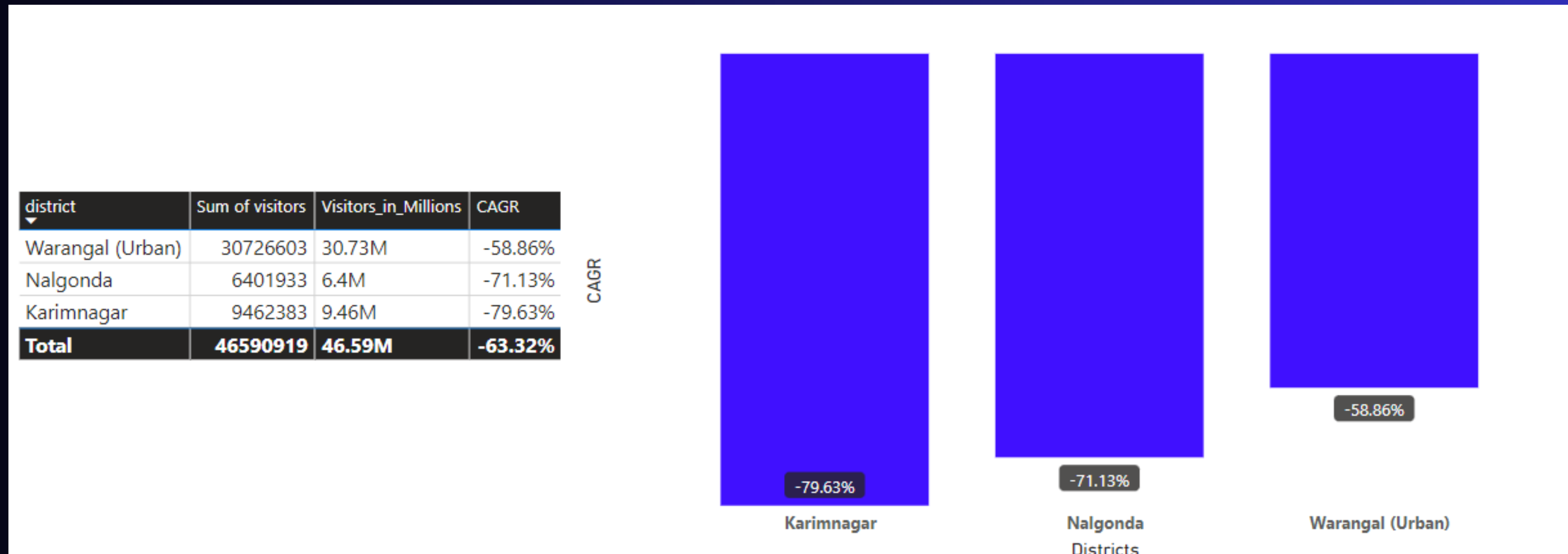| district	Visitors_in_Millions	Visitors	Foreign_CAGR
Hyderabad	1.04M	1044898	24.96%
Jogulamba Gadwal	0M	945	87.16%
Nagarkurnool	0M	761	90.03%
Total	**1.05M**	**1046604**	**25.01%**

Insights

- **Hyderabad, Jogulamba Gadwal, and Nagarkurnool. Hyderabad has recorded the highest number of visitors with 1.04 million and a foreign CAGR of 24.96%. In contrast, Jogulamba Gadwal and Nagarkurnool have not recorded any foreign visitors, with a total visitor count of 945 and 761, respectively. However, both districts have shown high foreign CAGRs at 87.16% and 90.03%, respectively.**
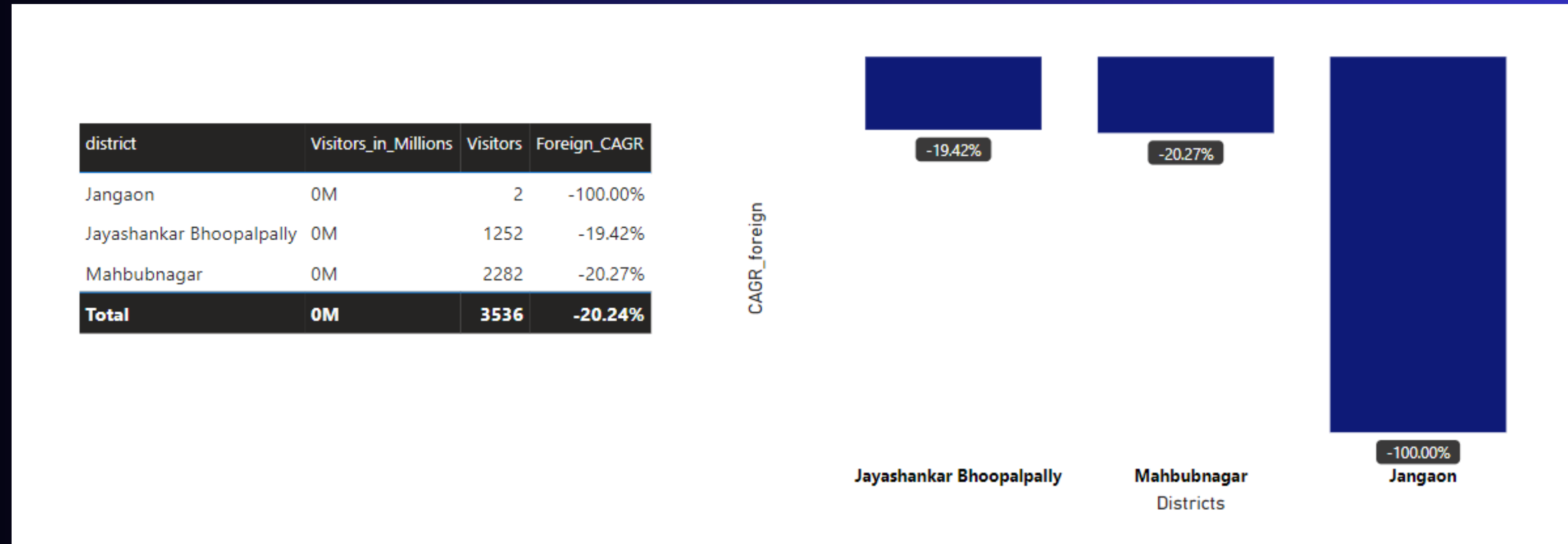
REQUEST 3:

List down the bottom 3 districts based on compounded annual growth rate (CAGR) of Domestic visitors between (2016-2019)?

district	Sum of visitors	Visitors_in_Millions	CAGR
Warangal (Urban)	30726603	30.73M	-58.86%
Nalgonda	6401933	6.4M	-71.13%
Karimnagar	9462383	9.46M	-79.63%
Total	**46590919**	**46.59M**	**-63.32%**

- **These districts have experienced a significant decline in the number of domestic visitors between 2016 and 2019, as indicated by their negative CAGR values. This could be due to various reasons such as lack of infrastructure, accessibility, or tourism initiatives in these districts.**

REQUEST 3:

List down the bottom 3 districts based on compounded annual growth rate (CAGR) of Foreign visitors between (2016-2019)?

district	Visitors_in_Millions	Visitors	Foreign_CAGR
Jangaon	0M	2	-100.00%
Jayashankar Bhoopalpally	0M	1252	-19.42%
Mahbubnagar	0M	2282	-20.27%
Total	**0M**	**3536**	**-20.24%**

CAGR_foreign

-19.42% -20.27% -100.00%

Jayashankar Bhoopalpally   **Mahbubnagar**   **Jangaon**

Districts

- **These districts have experienced a decline in the number of foreign visitors between 2016 and 2019, with Jangaon having the most significant decrease of 100%. This could be due to various reasons such as lack of infrastructure, safety concerns, or lack of promotion of these districts as tourist destinations.**

REQUEST 4:

4. What are the peak and low season months for Hyderabad based on the Domestic Visitors data from 2016 to 2019 for Hyderabad district?
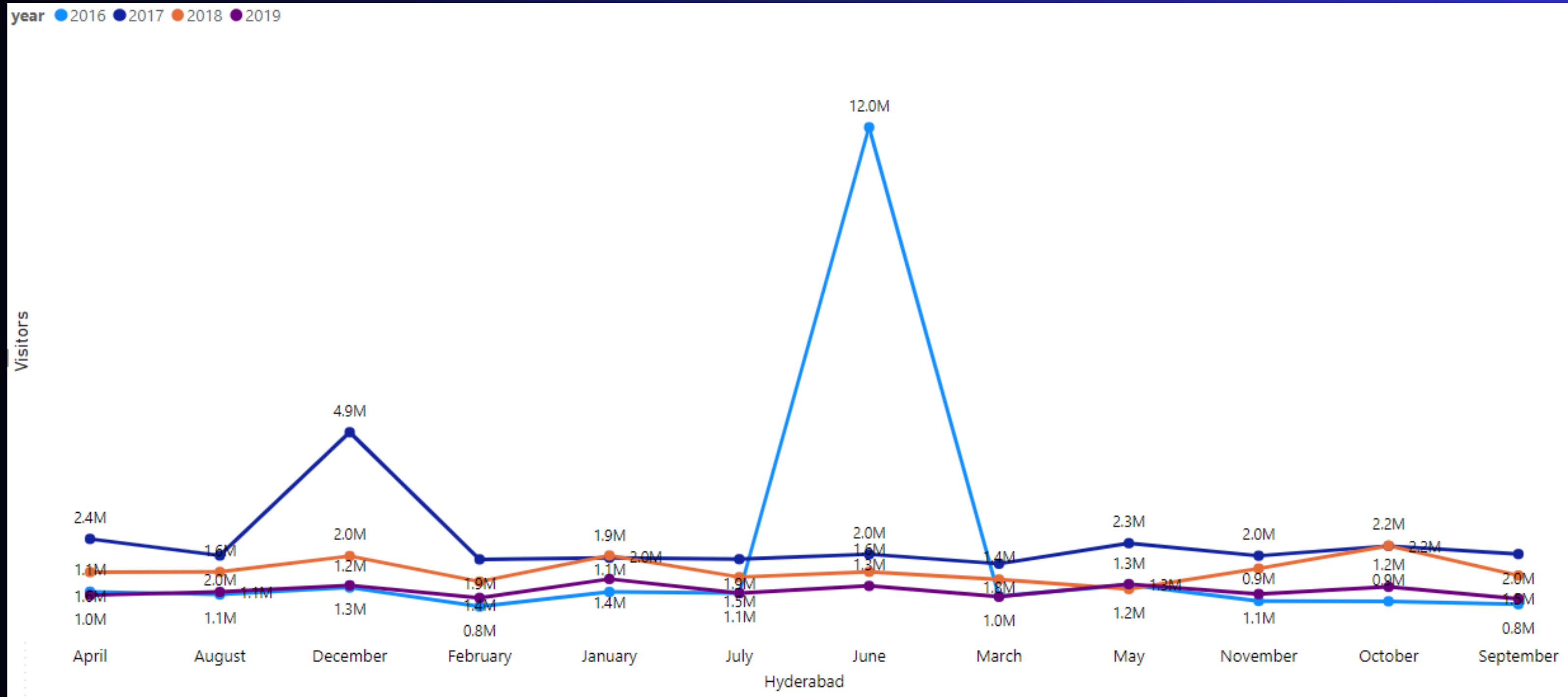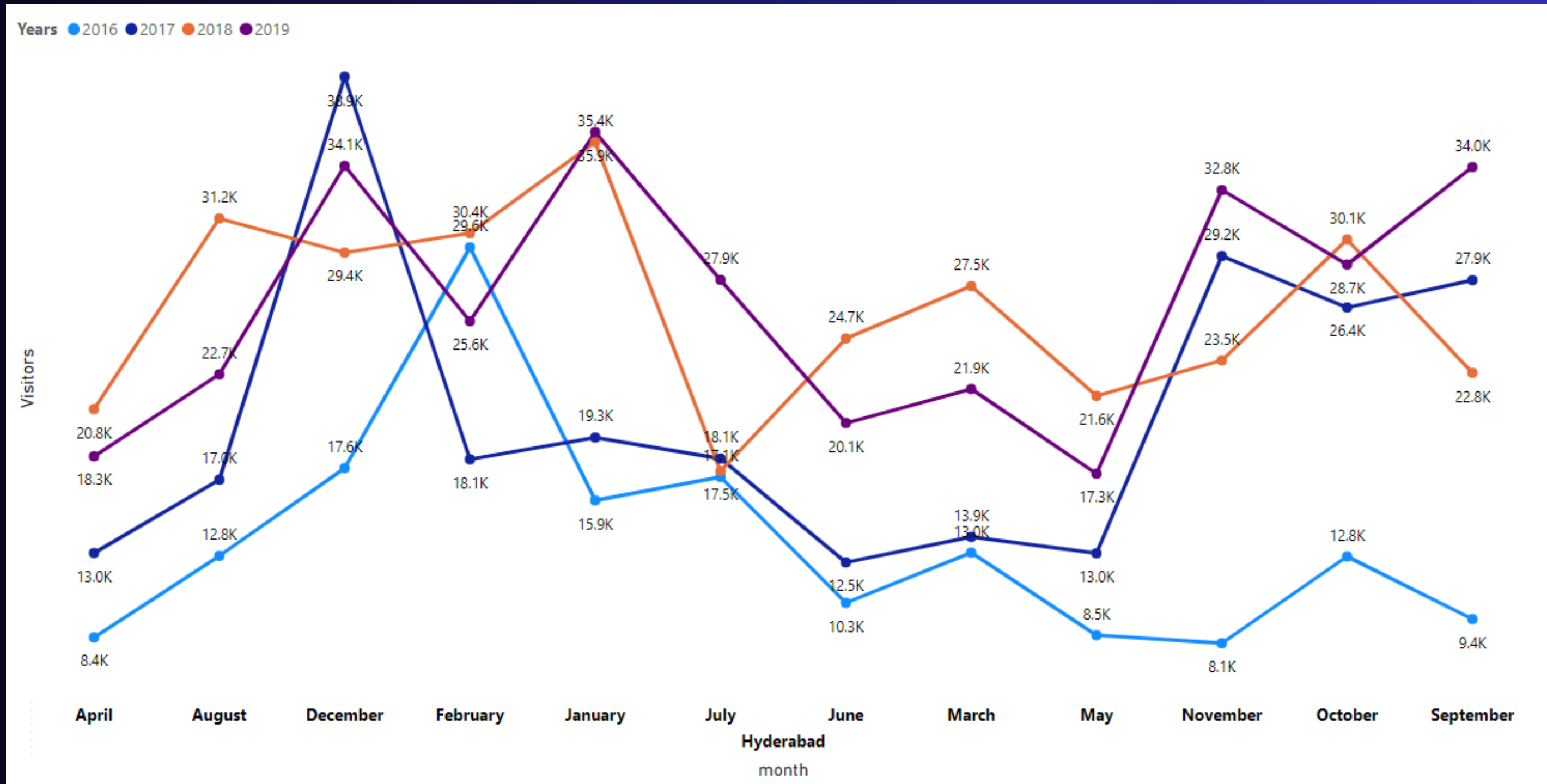
Insights

- The peak season months for Hyderabad are June and December, while the low season months are September and October.

- **June has the highest number of visitors in all the years, with a total of 12,032,661 visitors in 2016.**

- **December also has a high number of visitors, with a total of 4,876,416 visitors in 2017.**

- **On the other hand, September and October have the lowest number of visitors in all the years, with September having the lowest number of visitors in 2016, 2018, and 2019 and October having the lowest number of visitors in 2017.**

This insight could be useful for the government to plan for peak seasons by introducing new events, promotions, or initiatives that could attract more visitors to Hyderabad during the low season months of September and October. It would also help in managing the crowd during the peak season months of June and December to ensure a better visitor experience.

Insights

- The peak season months for foreign visitors in Hyderabad are December and September, while the low season months are April and May.

- **December has the highest number of foreign visitors in all the years, with a total of 38,933 visitors in 2017.**

- **September also has a high number of foreign visitors, with a total of 34,018 visitors in 2019.**

- **On the other hand, April and May have the lowest number of foreign visitors in all the years, with April having the lowest number of visitors in 2016 and May having the lowest number of visitors in 2016, 2017, and 2019.**

This insight could be useful for the government to plan for peak seasons by introducing new events, promotions, or initiatives that could attract more foreign visitors to Hyderabad during the low season months of April and May. It would also help in managing the crowd during the peak season months of December and September to ensure a better visitor experience.

REQUEST 5:

5. Show the top & bottom 3 districts with high domestic to foreign tourist ratio?
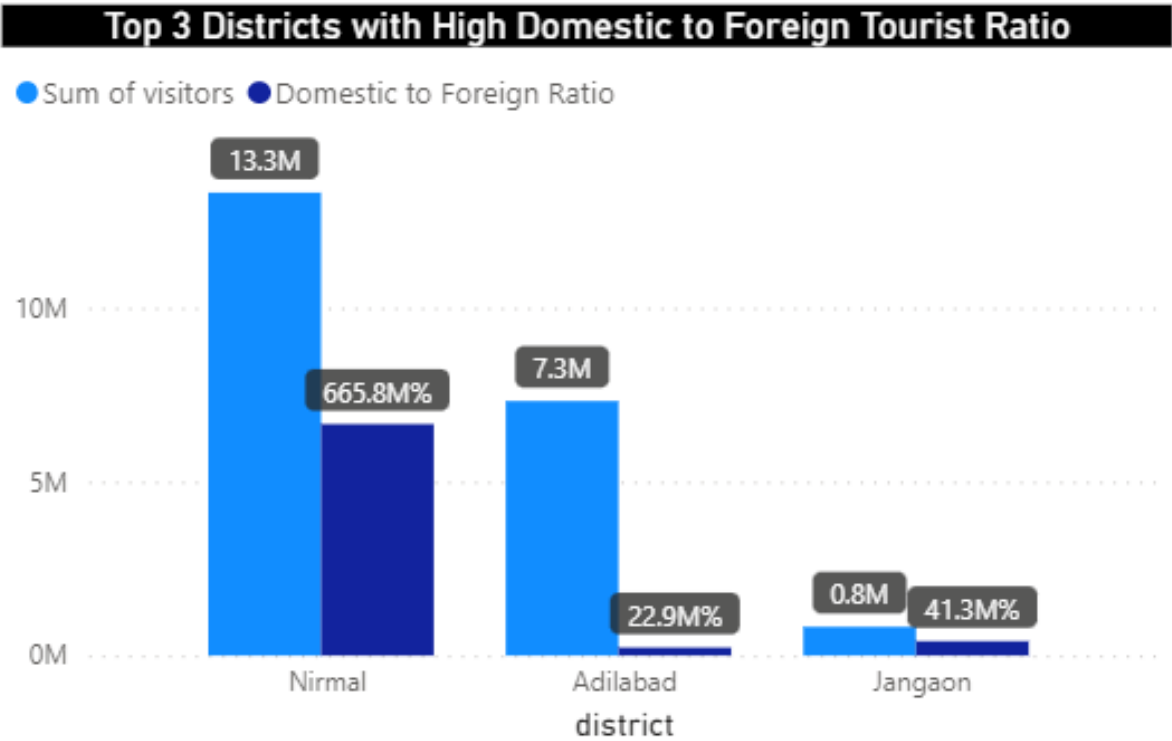
Top 3 Districts with High Domestic to Foreign Tourist Ratio

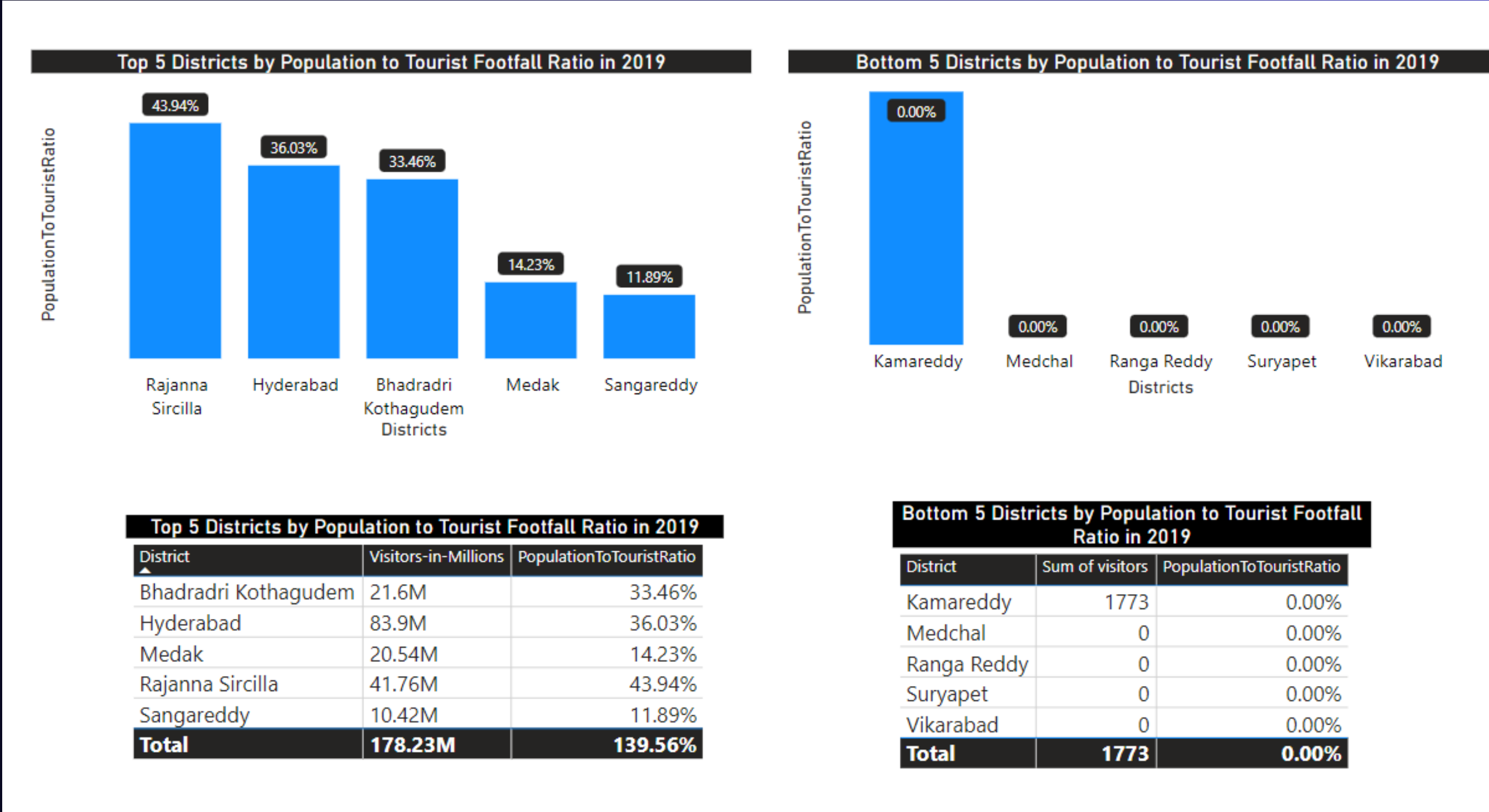| Districts	Visitors_in_Million	Domestic to Foreign Ratio
Nirmal	13.32M	665789800.00%
Jangaon	0.83M	41314000.00%
Adilabad	7.32M	22879921.88%
Total	**21.46M**	**59621252.78%**
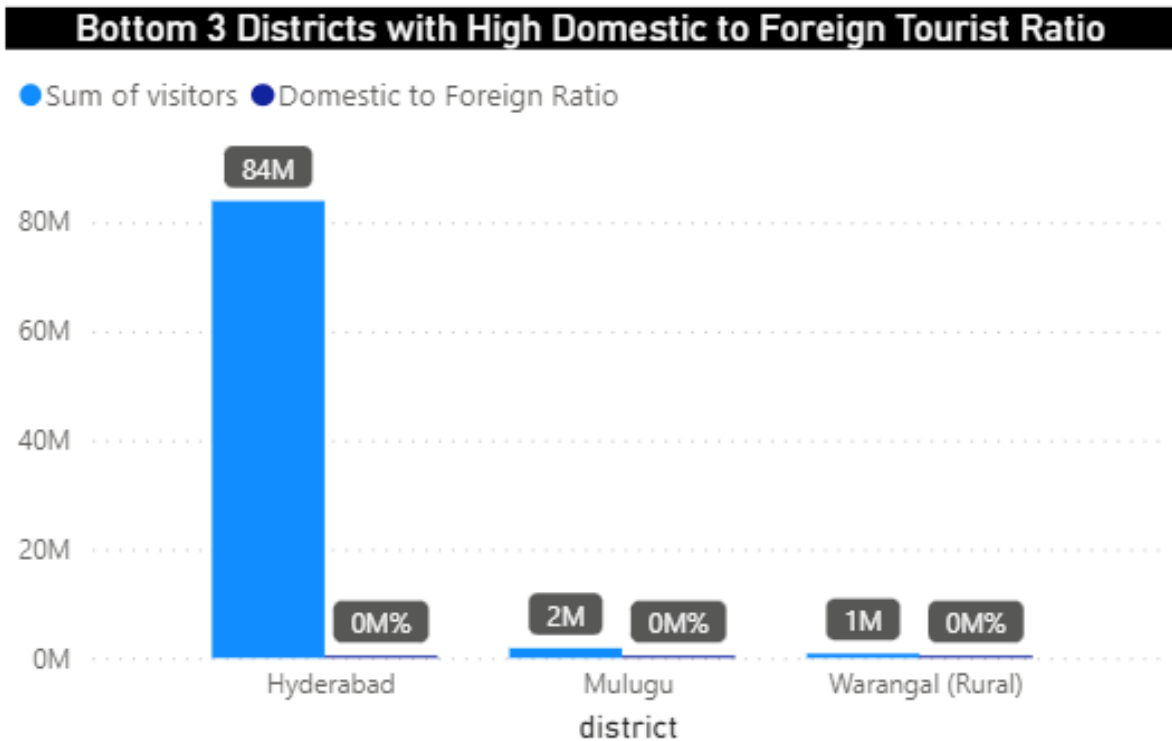
Bottom 3 Districts with High Domestic to Foreign Tourist Ratio

Districts	Visitors_in_Millions	Domestic to Foreign Ratio
Hyderabad	83.9M	8029.58%
Mulugu	1.82M	316486.96%
Warangal (Rural)	0.82M	267700.00%
Total	**86.54M**	**8275.16%**

Insights

- **Data shows significant difference in domestic to foreign tourist ratio across districts.**

- **Top 3 districts have a higher proportion of domestic tourists compared to foreign tourists.**

- **Bottom 3 districts have a higher proportion of foreign tourists compared to domestic tourists.**

- **Targeted tourism promotion in districts with low domestic to foreign tourist ratios can attract more foreign tourists and increase revenue from foreign tourism.**

- **Efforts can be made to attract more foreign tourists to Hyderabad, <u>the district with the highest number of visitors, but a relatively low domestic to foreign tourist ratio.</u>**

REQUEST 6:

6. List the top & bottom 5 districts based on 'population to tourist footfall ratio** ratio in 2019?

Top 5 Districts by Population to Tourist Footfall Ratio in 2019

District	Visitors-in-Millions	PopulationToTouristRatio
Bhadradri Kothagudem	21.6M	33.46%
Hyderabad	83.9M	36.03%
Medak	20.54M	14.23%
Rajanna Sircilla	41.76M	43.94%
Sangareddy	10.42M	11.89%
Total	**178.23M**	**139.56%**

Bottom 5 Districts by Population to Tourist Footfall Ratio in 2019

District	Sum of visitors	PopulationToTouristRatio
Kamareddy	1773	0.00%
Medchal	0	0.00%
Ranga Reddy	0	0.00%
Suryapet	0	0.00%
Vikarabad	0	0.00%
Total	**1773**	**0.00%**

Created by Shehryar Gondal

Insights

- **Hyderabad had the highest number of tourists with 83.9 million visitors in 2019.**
- **Bhadradri Kothagudem and Rajanna Sircilla also had a significant number of tourists.**
- **Kamareddy, Medchal, Ranga Reddy, Suryapet, and Vikarabad had no tourists .**

Strengths:
- **Hyderabad has a strong tourism industry.**
- **Bhadradri Kothagudem and Rajanna Sircilla are also attracting tourists.**

Weaknesses:
- **Some districts have a lack of tourism infrastructure or marketing efforts, resulting in a low population to tourist footfall ratio.**
- **High tourist numbers in some districts indicate challenges in accommodating them.**

Question:
A plan is needed to accommodate more tourists in districts with a population to tourist footfall ratio of 0.00%. This could include investing in tourism infrastructure, promoting these areas, and partnering with private businesses to attract more tourists.

REQUEST 7:

7. What will be the projected number of domestic and foreign tourists in Hyderabad in 2025 based on the growth rate from previous years?

23.4M

319k

250k
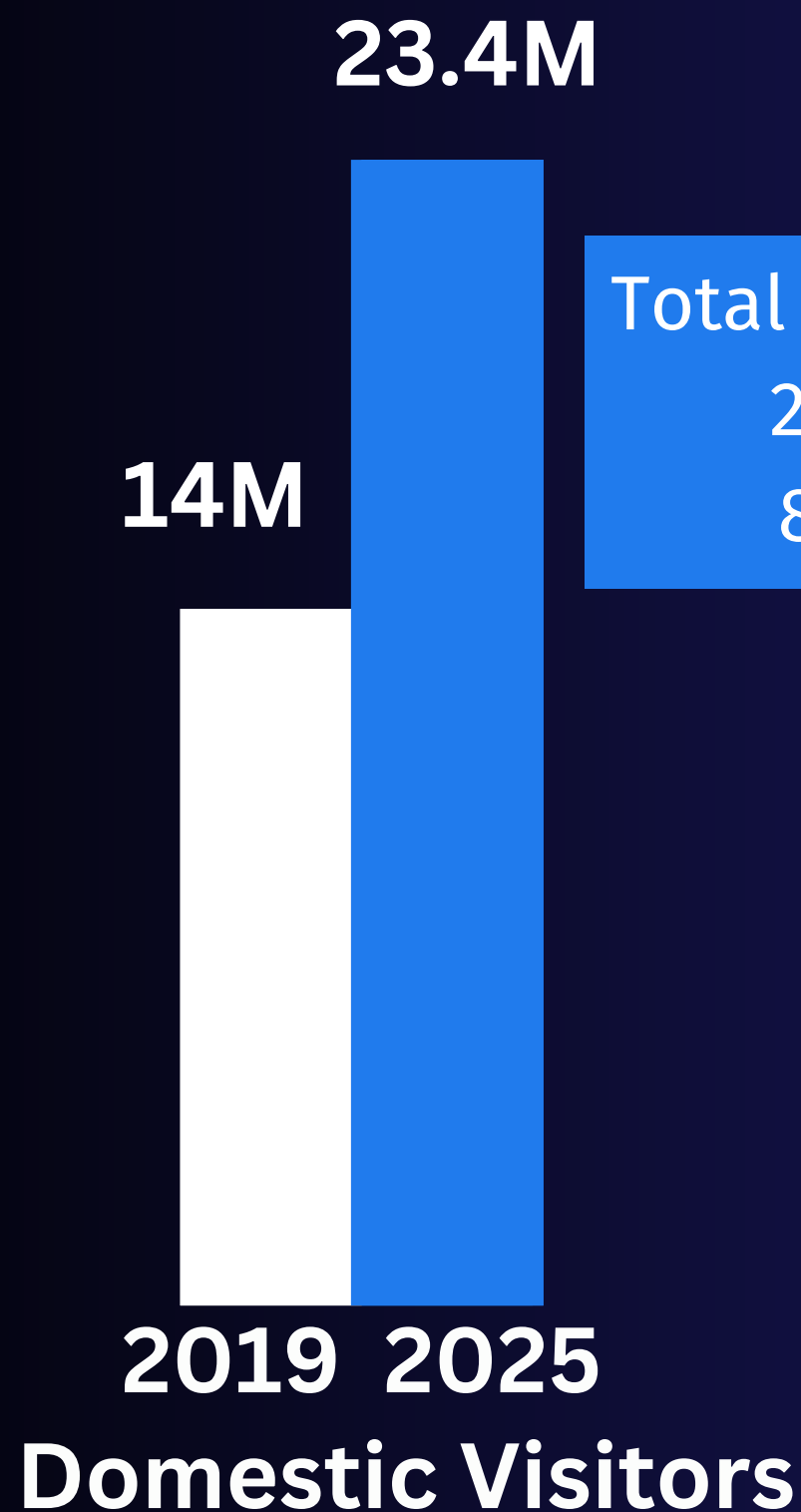
Total Domestic Visitors
2016 to 2019 :
83.90 million.

14M
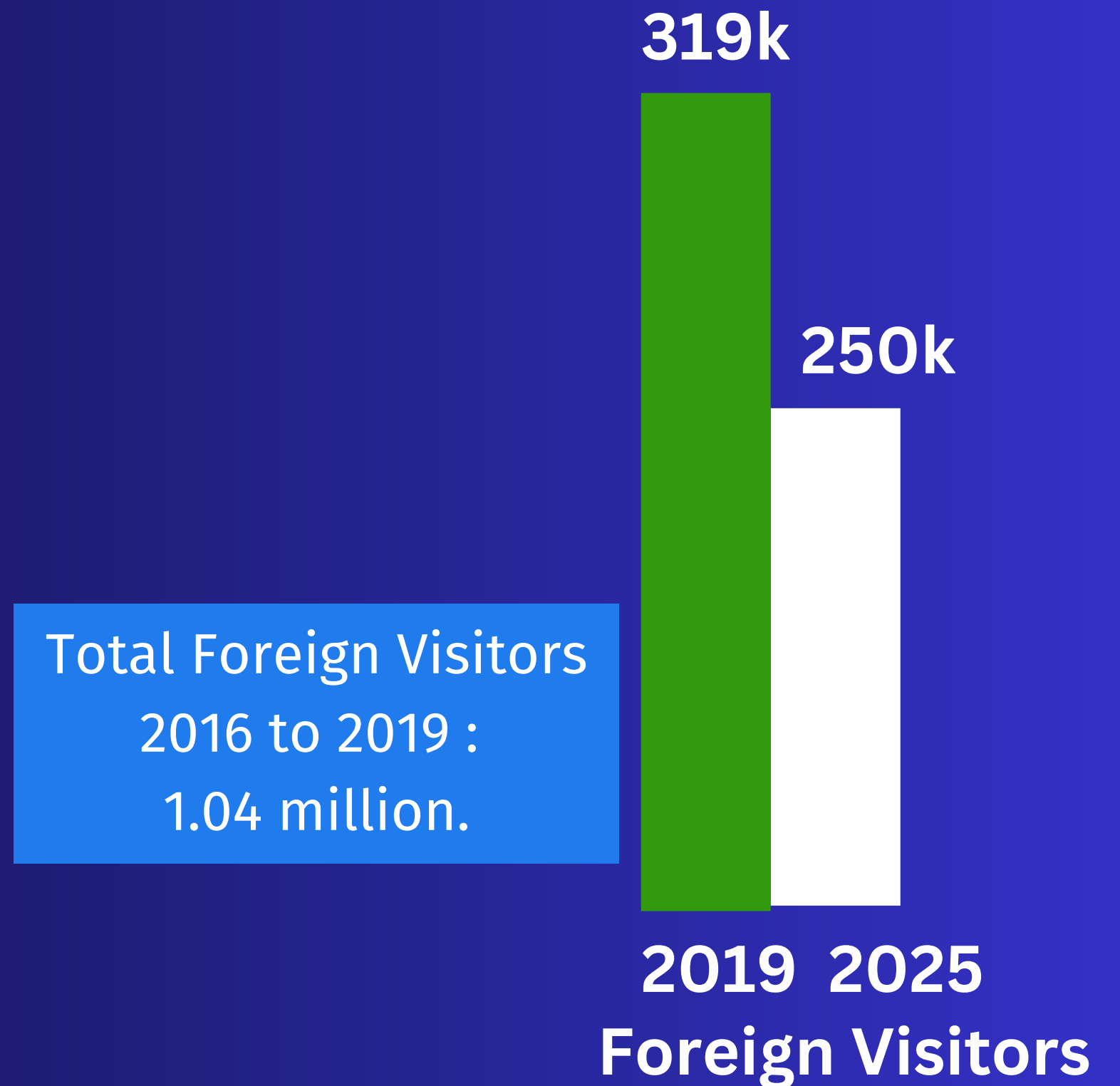
Total Foreign Visitors
2016 to 2019 :
1.04 million.

2019 2025
Domestic Visitors

2019 2025
Foreign Visitors
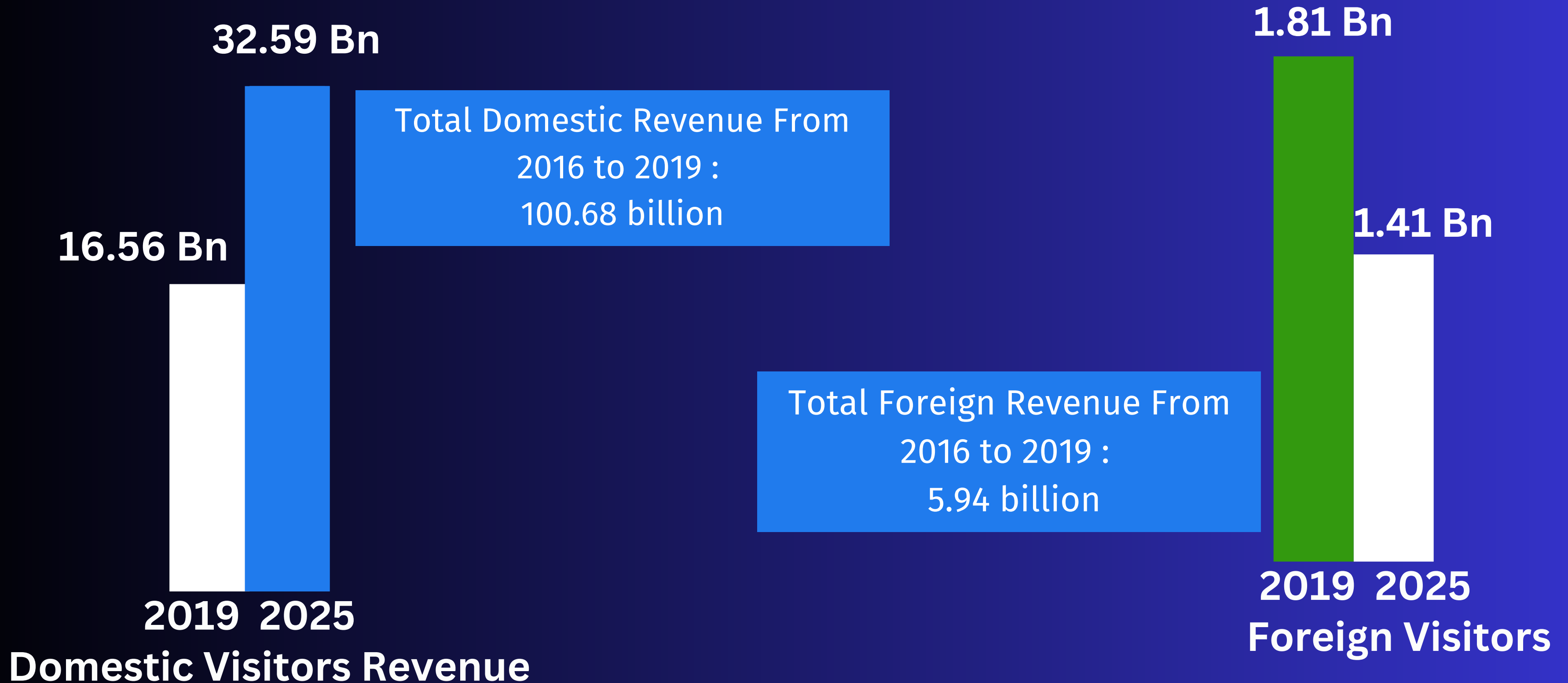
Insights

- <u>**Insight for Domestic Tourists:**</u>

- **Based on the data provided, the number of domestic tourists visiting Hyderabad is expected to increase from 23.4 million in 2016 to 27.2 million in 2021, before declining slightly to 19.5 million in 2022. The forecasted value for domestic tourists in 2025 is 23.4 million. This information can help the government and tourism industry plan infrastructure and services to accommodate the expected number of domestic tourists in the coming years.**

- <u>**Insight for Foreign Tourists:**</u>

- **It appears that there has been a steady increase in the number of foreign tourists visiting Hyderabad over the past few years. From 2016 to 2019, the number of foreign tourists increased from 0.16 million to 0.32 million. However, it is important to note that there was a decrease in the number of foreign tourists from 2019 to 2020, likely due to the impact of the COVID-19 pandemic on travel.**

- **The forecasted value for foreign tourists in 2025 is 0.25 million, which is slightly lower than the 2019 value. This forecast should be taken with caution, as there are many factors that can impact the number of foreign tourists in a given year, such as economic conditions, political stability, and global events.**

- **By understanding the expected number of foreign tourists, they can invest in amenities such as accommodations, transportation, and attractions that will make Hyderabad an attractive destination for travelers from around the world.**

REQUEST 8:

8. Estimate the projected revenue for Hyderabad in 2025 based on average spend per tourist (approximate data)

32.59 Bn

1.81 Bn

1.41 Bn

16.56 Bn

Total Domestic Revenue From
2016 to 2019 :
100.68 billion

Total Foreign Revenue From
2016 to 2019 :
5.94 billion

2019 2025

2019 2025
Foreign Visitors

Domestic Visitors Revenue

Insights

- **For Domestic Tourism:**

- **Average revenue generated per domestic tourist in Hyderabad is INR 1,200.**
- **Total domestic tourism revenue in Hyderabad from 2016 to 2019:**
- **2016: INR 28.07 billion from 23.39 million visitors**
- **2017: INR 32.59 billion from 27.16 million visitors**
- **2018: INR 23.45 billion from 19.54 million visitors**
- **2019: INR 16.56 billion from 13.80 million visitors**
- **The government can analyze the spending patterns of domestic tourists, demographic data, and trends in the domestic tourism industry to develop targeted policies that improve the tourism industry in Hyderabad.**

- **For Foreign Tourism:**
- **Average revenue generated per foreign tourist in Hyderabad is INR 5,600.**
- **Total foreign tourism revenue in Hyderabad from 2016 to 2019:**
- **2016: INR 932.79 million from 166,570 visitors**
- **2017: INR 1.41 billion from 251,846 visitors**
- **2018: INR 1.78 billion from 318,154 visitors**
- **2019: INR 1.81 billion from 323,326 visitors**
- **The projected revenue for foreign tourism in Hyderabad in 2025 is INR 1.41 billion, which is lower than the revenue generated in 2017 and 2018.**

Insights

"Strategies to Increase Foreign Revenue in Hyderabad's Tourism Industry"

To enhance the foreign revenue in Hyderabad's tourism industry, the government can implement various strategies, such as targeted marketing campaigns, improved facilities and services, development of specific tourism packages, and collaborations with the private sector. These initiatives aim to elevate the overall tourist experience by catering to the preferences of foreign tourists, promoting Hyderabad as an appealing tourist destination, and attracting more foreign tourists to the city, ultimately leading to an increase in foreign revenue.

Recommendations for Improving Tourism

REQUEST 9:

9. Districts with highest potential

Which districts has the highest potential for tourism growth and what actions government can take?

- Hyderabad district had the highest number of visitors with 83.9 million visitors, followed by Rajanna Sircilla district with 41.76 million visitors and Bhadradri Kothagudem district with 21.6 million visitors.

- Smaller districts with lower visitor numbers may have more potential for growth and could be targeted for tourism development by the government.

- The districts with the highest potential for tourism growth are those that receive a smaller percentage of visitors compared to their size and potential.

- Some of the districts that appear to have this potential include Mulugu, Wanaparthy, Siddipet, Nagarkurnool, and Nalgonda.

- To unlock the potential for tourism growth in these districts, the government can take several actions such as developing infrastructure and facilities, marketing and promotion, supporting local businesses, and facilitating permits and licenses.

- Encouraging tourism growth in these districts can help to create jobs, increase economic growth, and promote the region's culture and history.

Cultural / Corporate Events to boost tourism
a. What kind of events the government can conduct?
b. Which month(s)?
c. Which districts?

a. What kind of events the government can conduct?

- Cultural festivals showcasing local art, music, dance, and cuisine.

- International conferences and exhibitions to attract business travelers.

- Sporting events, marathons, and competitions to engage fitness enthusiasts.

- Art and film festivals to promote creative industries.

- Heritage walks and historical re-enactments to highlight the region's history.

- Eco-tourism initiatives like wildlife safaris, nature trails, and conservation workshops.

Insights

b. Which month(s)?

- For domestic tourists: September and October, as they are the low season months for Hyderabad. This is the time when the monsoon season is tapering off, and the weather becomes more pleasant, making it an ideal time to organize outdoor events and festivals.

- For foreign tourists: April and May, as they are the low season months for foreign visitors in Hyderabad. These months fall during the spring season, when temperatures are moderate and comfortable. Hosting events during this time can help attract more foreign tourists who are looking to escape the colder climates in their home countries.

c. Which districts?

- Hyderabad, as it already has a well-established tourism industry and infrastructure.

- Districts with high potential for growth, such as Bhadradri Kothagudem, Rajanna Sircilla, Warangal (Rural), and Mancherial.

- Districts with low domestic to foreign tourist ratios that could benefit from increased foreign tourism, such as Jogulamba Gadwal and Nagarkurnool.

- Districts with untapped tourism potential, like Kamareddy, Medchal, Ranga Reddy, Suryapet, and Vikarabad.

REQUEST 11:

11. Dubai has made itself a business hub and enjoys massive business tourism. Can Hyderabad emulate the Dubai model? Provide insights based on your research.

Hyderabad may not be able to entirely replicate the Dubai model due to differences in geographical location, economic resources, and cultural backgrounds, it can certainly learn from Dubai's successful strategies and adapt them to suit its unique context.

- Improving its infrastructure, including convention centers, hotels, and transportation networks.
- Creating a business-friendly environment with incentives for businesses to set up operations and streamlined processes.
- Diversifying its economy by promoting sectors like information technology, biotechnology, pharmaceuticals, and renewable energy.
- Establishing SEZs or business parks to attract foreign investment and multinational corporations.
- Fostering a culture of innovation by investing in education, research, and development, and creating support systems for start-ups and entrepreneurs.
- Developing a skilled workforce through education and vocational training programs.
- Creating a strong marketing campaign that highlights its unique selling points and positions it as an attractive destination for business tourism.

REQUEST 12:

12. Provide all other recommendations that can boost the telangana tourism, particularly Hyderabad

- **Diversify tourism offerings:** Develop and promote various types of tourism, such as cultural, historical, nature-based, adventure, and culinary tourism to attract a broader range of tourists.

- **Improve infrastructure:** Invest in upgrading existing infrastructure such as roads, public transport, and tourist accommodations to meet international standards and enhance tourists' experiences.

- **Develop tourism clusters:** Identify and develop tourism clusters by connecting various tourist attractions in and around Hyderabad, allowing tourists to explore multiple sites easily.

- **Promote sustainable tourism:** Implement eco-friendly practices and promote sustainable tourism to attract environmentally conscious travelers.

- **Collaborate with airlines and travel agencies:** Build partnerships with airlines and travel agencies to offer attractive packages and direct flights to Hyderabad, making it more accessible to international tourists.

- **Leverage technology:** Use digital marketing channels, virtual reality, and social media influencers to promote Hyderabad's tourism offerings globally.

Insights

- **Enhance safety and security measures:** Implement strict safety and security measures to ensure a safe environment for tourists, particularly foreign visitors.

- **Develop tourism training programs:** Invest in human resources by providing training programs for hospitality and tourism professionals, improving service quality in the industry.

- **Offer multi-lingual support:** Provide multi-lingual support in tourist centers and attractions to cater to foreign tourists, helping them navigate and communicate more easily.

- **Foster public-private partnerships:** Encourage public-private partnerships to facilitate investment and development in the tourism industry, with a focus on enhancing Hyderabad's tourism offerings.

- **Organize international events and festivals:** Host international events, conferences, and festivals to raise global awareness about Hyderabad and showcase the city's rich culture, history, and attractions.

- **Implement a tourist feedback system:** Establish a feedback system to gather insights from tourists about their experiences and use this information to make data-driven improvements to the tourism industry in Hyderabad.

Thank You