Airbnb Power BI Project

- DAX Measures and Calculated Columns

Measures

1. Average Nights ```DAX Average Nights = AVERAGE('Combined\_Airbnb\_Listings'[minimum\_nights])

2. Average Availability

Average Availability = AVERAGE('Combined\_Airbnb\_Listings'[availability\_365])

**3. Average Price**

Average review = AVERAGE('Combined\_Airbnb\_Listings'[number\_of\_reviews\_ltm])

**4. Average Review**

Average review = AVERAGE('Combined\_Airbnb\_Listings'[number\_of\_reviews\_ltm])

**5. Host Rank by Min Nights**

Host rank by Min nights = RANKX(ALL('Combined\_Airbnb\_Listings'[host\_name]), [Average nights], , DESC)

**6. Host Rank by Average Price**

Host\_Rank\_by\_avgprice = RANKX(ALL('Combined\_Airbnb\_Listings'[host\_name]), [Average Price])

**7. Host Rank by Average Availability**

Hostrank by avg availability = RANKX(ALL('Combined\_Airbnb\_Listings'[host\_name]), [Average Availability], , DESC)]

**8. Hosts Percentage Increase (2022 vs 2024)**

Hosts Percentage Increase 2022 v 2024 =

DIVIDE(

[Total Hosts 2024] - [Total Hosts 2022],

[Total Hosts 2022],

0

)

**9. Listings Percentage Increase (2022 vs 2024)**

**Listings Percentage Increase 2022 v 2024 =**

**DIVIDE(**

**[Total Listings 2024] - [Total Listings 2022],**

**[Total Listings 2022],**

**0**

**)**

**10. Rank by Neighbourhood Review**

Rank by neighbourhood review = RANKX(ALL('Combined\_Airbnb\_Listings'[Neighbourhood]), [Average review], , DESC)

**11. Rank Neighborhoods by Host Count**

Rank Neighborhoods by host count = RANKX(ALL('Combined\_Airbnb\_Listings'[Neighbourhood]), [Total Hosts], , DESC)

**12. Rank Neighborhoods by Night Stays**

Rank Neighborhoods by night stays = RANKX(ALL('Combined\_Airbnb\_Listings'[Neighbourhood]), [Average nights], , DESC)

**13. Rank Neighborhoods by Total Listings**

Rank Neighborhoods by Total Listings = RANKX(ALL('Combined\_Airbnb\_Listings'[Neighbourhood]), [Total Listings], , DESC)

**14. Top 10 Hosts Overall**

Top 10 hosts overall = IF([Host rank by Min nights] <= 10 || [Host\_Rank\_by\_avgprice] <= 10 || [Hostrank by avg availability] <= 10, 1, 0)

**15. Top 10 Neighborhood Flag (ALL)**

Top10NeighborhoodFlagALL =

IF(

[Rank Neighborhoods by Total Listings] <= 10 &&

[Rank Neighborhoods by host count] <= 10 &&

[Rank Neighborhoods by night stays] <= 10 &&

[Rank by neighbourhood review] <= 10,

1,

0

)

16. **16. Top 15 Neighborhood Flag**

Top15NeighborhoodFlag = IF([Rank Neighborhoods by Total Listings] <= 15 || [Rank Neighborhoods by host count] <= 15 || [Rank Neighborhoods by night stays] <= 15, 1, 0)

**17. Total Hosts**

Total Hosts = DISTINCTCOUNT('Combined\_Airbnb\_Listings'[host\_id])

**18. Total Hosts (2022)**

Total Hosts 2022 =

CALCULATE(

DISTINCTCOUNT('Combined\_Airbnb\_Listings'[host\_id]),

'Combined\_Airbnb\_Listings'[Year] = 2022

)

**19. Total Hosts (2024)**

Total Hosts 2024 =

CALCULATE(

DISTINCTCOUNT('Combined\_Airbnb\_Listings'[host\_id]),

'Combined\_Airbnb\_Listings'[Year] = 2024

)

**20. Total Hosts in Chicago**

Total hosts in chicago = CALCULATE(DISTINCTCOUNT('Combined\_Airbnb\_Listings'[host\_id]), 'Combined\_Airbnb\_Listings'[City] = "Chicago")

**21. Total Hosts in New Orleans**

Total Hosts in New Orleans =

CALCULATE(

DISTINCTCOUNT('Combined\_Airbnb\_Listings'[host\_id]),

'Combined\_Airbnb\_Listings'[City] = "New Orleans"

)

**22. Total Listings (2022)**

Total Listings 2022 = CALCULATE(COUNTROWS('Combined\_Airbnb\_Listings'), 'Combined\_Airbnb\_Listings'[Year] = 2022)

**23. Total Listings**

Total Listings = COUNTROWS('Combined\_Airbnb\_Listings')

**24. Total Listings (2024)**

Total Listings 2024 =

CALCULATE(

COUNTROWS('Combined\_Airbnb\_Listings'),

'Combined\_Airbnb\_Listings'[Year] = 2024

)

**Calculated Columns**

**1. Price Label**

Price\_Label =

VAR PriceValue = 'Combined\_Airbnb\_Listings'[price]

VAR Price25 = PERCENTILE.INC('Combined\_Airbnb\_Listings'[price], 0.25)

VAR Price50 = PERCENTILE.INC('Combined\_Airbnb\_Listings'[price], 0.50)

VAR Price75 = PERCENTILE.INC('Combined\_Airbnb\_Listings'[price], 0.75)

RETURN

SWITCH(

TRUE(),

PriceValue > Price75, "Very High",

PriceValue > Price50, "High",

PriceValue > Price25, "Medium",

"Low"

)