

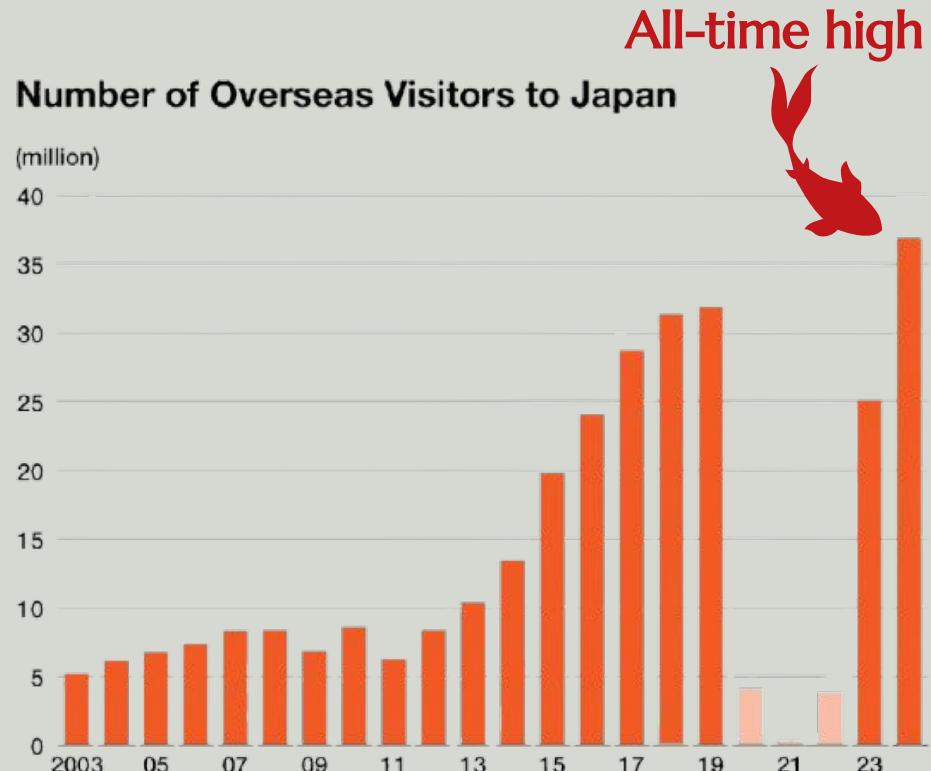


How should you visit Japan?

: Statistical Analysis of Factors for a Good Trip

Everybody is going to Japan

The number of overseas visitors to Japan
is all time high in 2024 (36.9 Million)



Created by Nippon.com based on data from the Japan National
Tourism Organization.



Day 1- Excited to travel to Japan



Day 1- Stuck in a tourist crowd





Erika

Local Guide · 382 reviews · 1,899 photos



It's impossible to find peace or fun here, just too crowded. My family insisted to come, otherwise, don't want to get closer to this area at all. Tourist trap.



prashanth unni

Local Guide · 162 reviews · 375 photos

⋮



The serene ambiance of Kinkaku-ji Temple is marred by the overwhelming presence of crowds, resulting in tourism pollution. The tranquility of this iconic site is disrupted by the constant hum of voices and movement of visitors, detracting from the spiritual experience it offers. The delicate balance between preserving the temple's beauty and accommodating tourists must be carefully managed to ensure a sustainable and enriching visit for all.

Overcrowded tourist trap



Stephen George

Local Guide · 22 reviews · 17 photos



Definitely a tourist trap. Hoards of tourists stuck to walking along a fixed path, stopping only to take different angle 'Instagram shots' of the golden roof. Would only recommend to go if you're in the vicinity otherwise not very accessible by public transport.

But I am not telling you

it is not a good time to
visit Japan

In terms of visiting Japan,
It is the best of times, it is the worst of times.

It is the age of **cheap yen**, it is the age of **overcrowding**.

Charles Dickens (Probably)



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O1 /

How to plan a good trip to Japan using **data science?** **(Choosing good Time & Place)**



Cities to be studied



3 quantifiable factors of a good trip



Weather

天気がいいから、散歩
しましょう



Cost

The lower the better



The no. of tourists

The lower the better

Sources of 3 type of dataset by month



Weather

Japan Meteorological Agency
気象庁



Cost

Hotel price from
trivago hotel price
index



The no. of tourists

Japan Tourism
Statistics

Difficulties on answering the questions

Language barrier

Some data are only available in japanese. Have to search in japanese

Transformation of data

Some data are in pdf / html (Japan Meteorological Agency 気象庁), not csv.
Further actions are needed to analyse

Lack of specific data

Most of the data are not sorted into months.

Methods of answering the questions



Platform

R Studio



Version

R 4.2.2



Libraries:

Data management

Tidyverse, dplyr, tidyr...



Libraries:

Visualization

Ggplot2, plotly, ggrepel,
gplots, corrplot...



Libraries:

Web Scraping

Rvest...



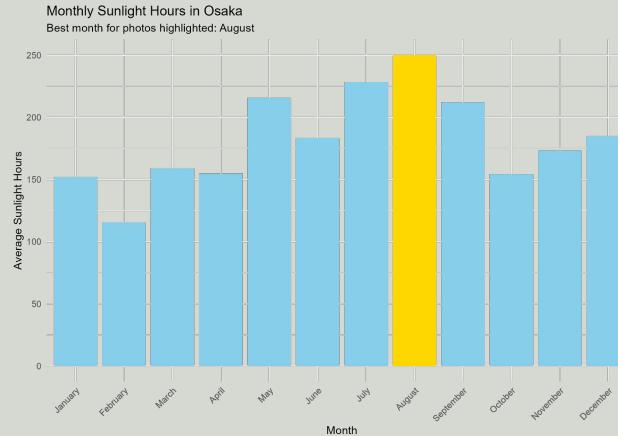
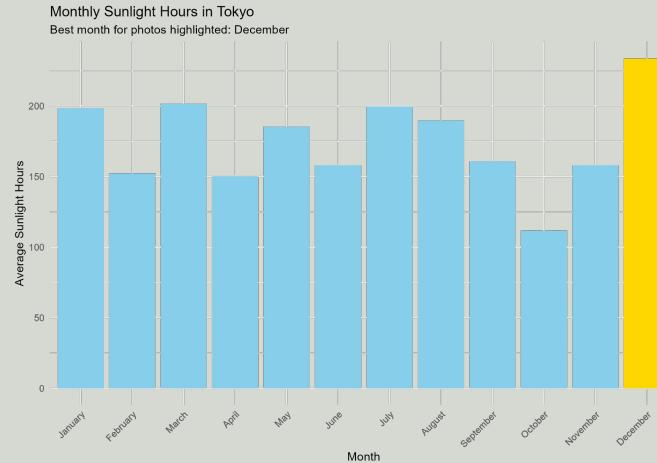
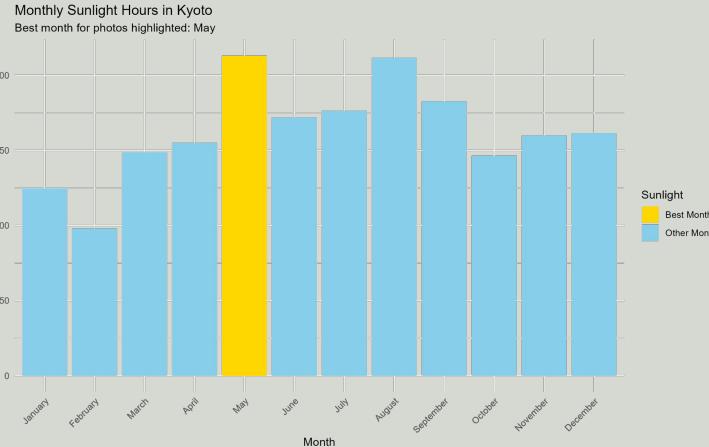
Libraries:

Factor Analysis

Stats...

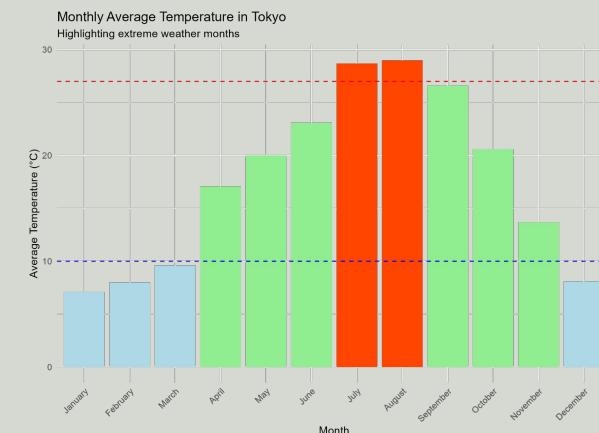
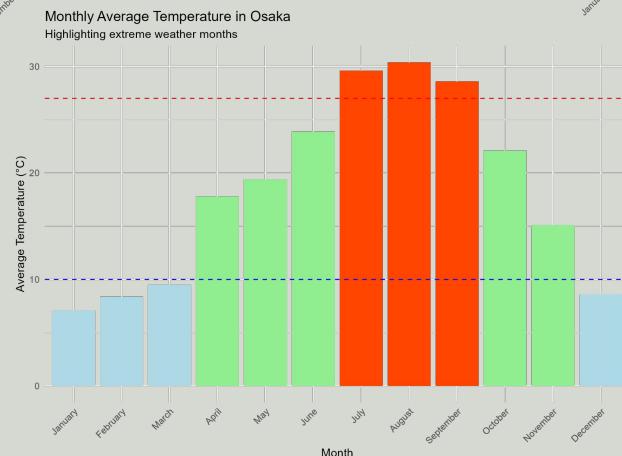
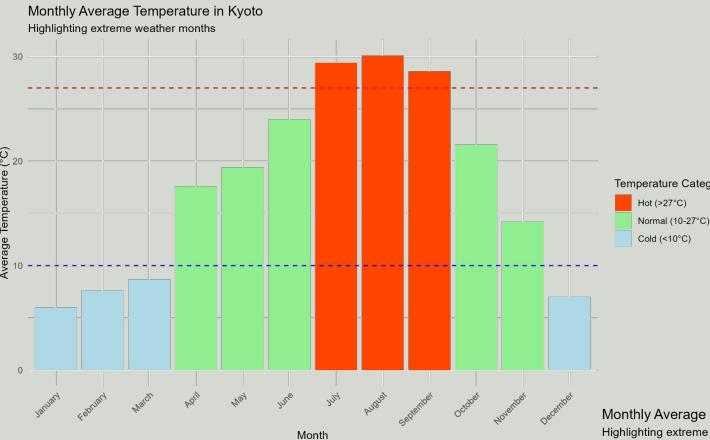
Weather-wise:

Best month for shooting photos (w/ the most sunlight):



Weather-wise:

Extreme weather months (avg temperature $> 27^{\circ}\text{C}$ or $< 10^{\circ}\text{C}$):



Temperature Category

- Hot ($>27^{\circ}\text{C}$)
- Normal ($10\text{-}27^{\circ}\text{C}$)
- Cold ($<10^{\circ}\text{C}$)

Temperature Category

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- Cold ($<10^{\circ}\text{C}$)

Weather-wise:

Want to see snowing in urban area:

Kyoto

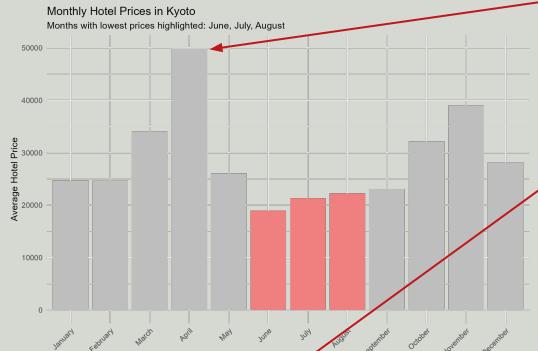
Osaka

Tokyo

feb

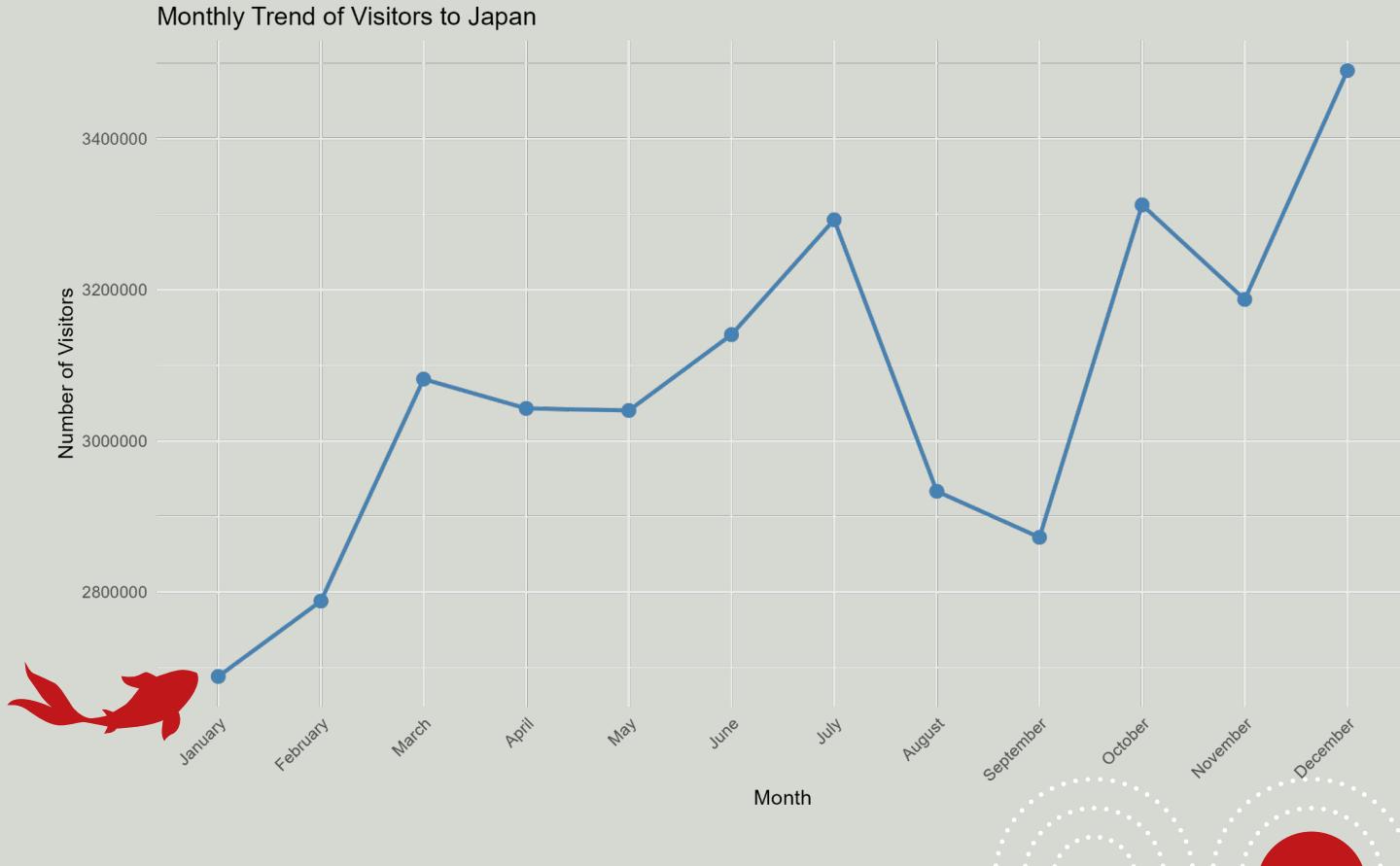
Sakura Season

Cost-wise:



The number of tourists wise:

2024



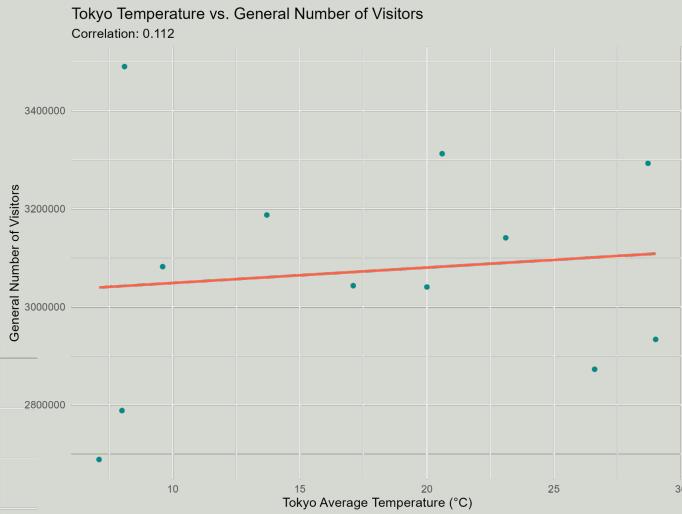
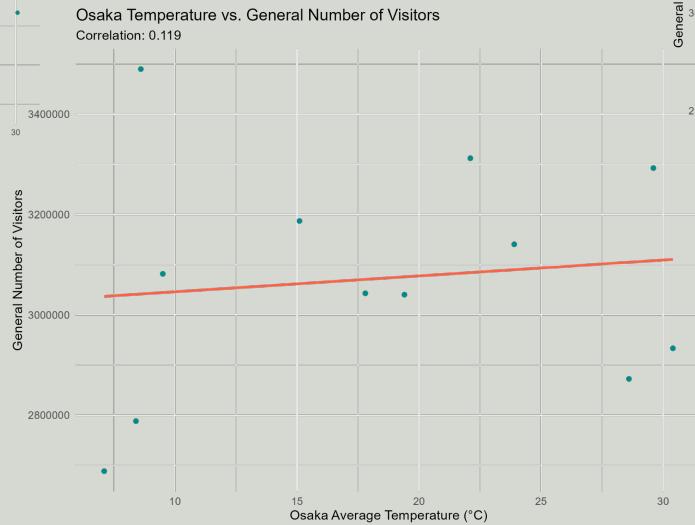
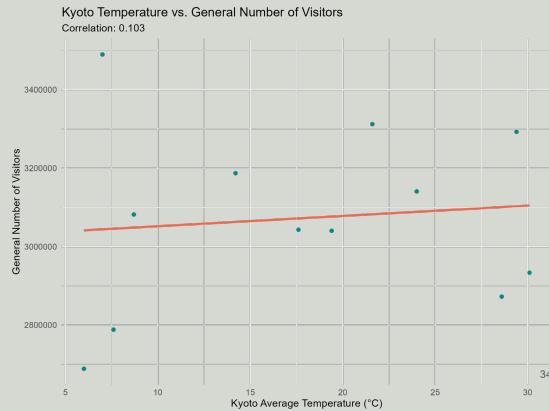


O2 /

Does weather and the cost
affect the number of tourists
in Japan?



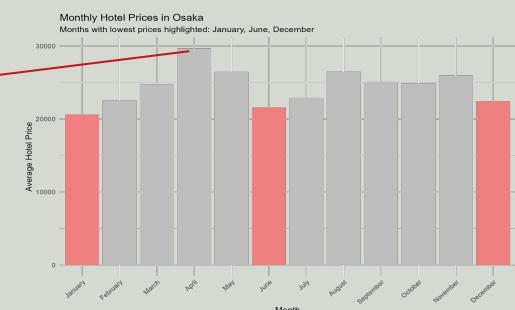
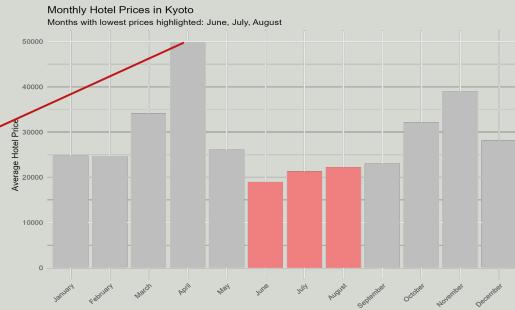
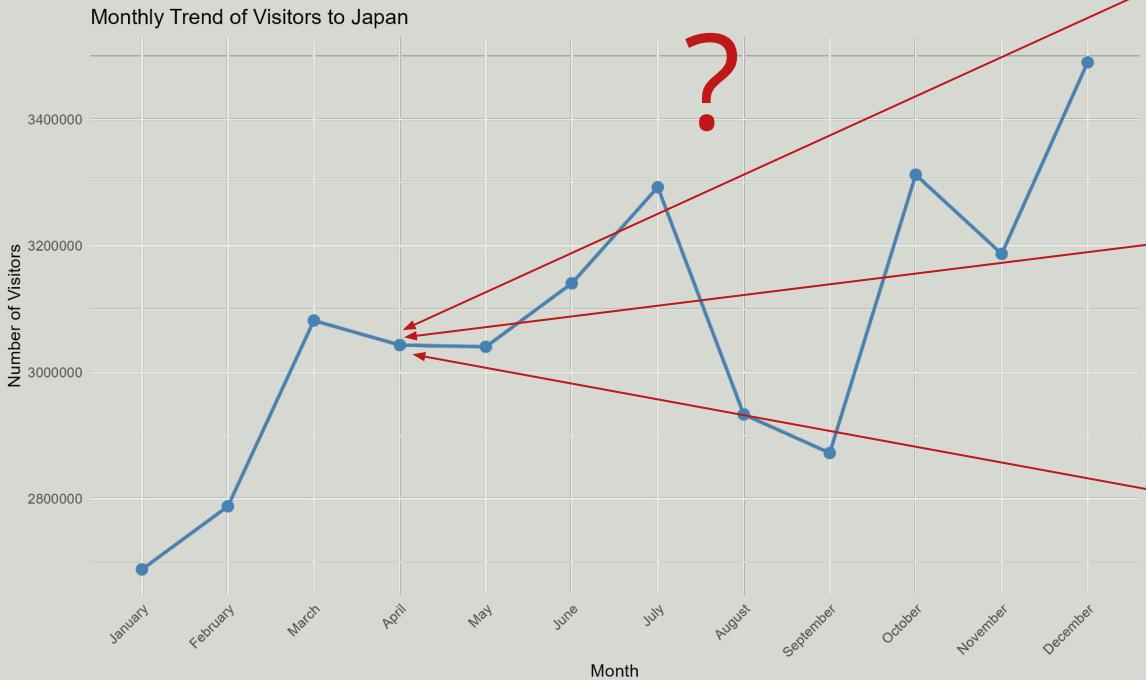
The correlation between temperature and the number of tourists:



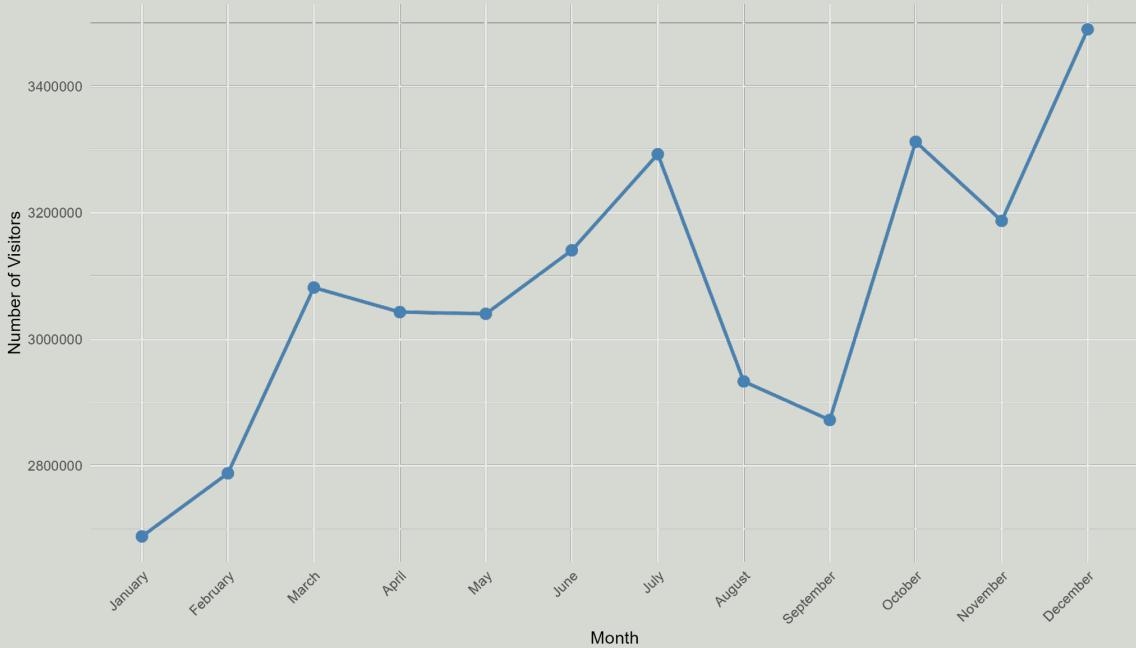
The correlation between cost and the number of tourists:



?



Monthly Trend of Visitors to Japan



This only reveals the
number of foreign
tourists

Conclusion

- Visiting Japan in **Spring** or **Autumn** if you are sensitive to temperature
- Visiting Japan in **Summer** if you want a affordable trip
- Visiting Japan in **January** if you do not want to be stuck in the tourist traps



Limitation

- Ignoring important features

If too few of these features are chosen for analysis

(for example, if just one feature is chosen and simple linear regression is performed instead of multiple linear regression),

the results can be misleading.



Acknowledgements and References:

- <https://www.data.jma.go.jp/stats/>
- <https://www.trivago.hk/en-HK>
- <https://statistics.jnto.go.jp/en/graph/>

THANKS!



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