Trend analysis of visitors from different nationalities in Hong Kong from 2016 to 2019

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Agenda

- Introduction
- Reviewing existing works
- Method:Data sources and Data cleaning
- Results :Data visualization
- Analysis conclusion :Data analysis

Introduction

Hong Kong has always been a international metropolis, a world tourist city as well. Thousands of tourists from different countries and regions come to Hong Kong every year.

Different factors such as the political environment and economic development will affect whether tourists choose to visit Hong Kong or not. Especially the recent anti-revision incident in Hong Kong has had a negative impact on tourism.

This project is a trend analysis of Hong Kong visitors over three past years. We hope that by visualizing the data of visitors of different nationalities over the past three years to find out that the impact of the politics activity on the number of visitors from different nationalities.

Reviewing existing works

U.S. TRAVEL ANSWER SHEET
FACTS ABOUT A LEADING AMERICAN INDUSTRY THAT'S MORE THAN JUST FUN
(ALL DATA 2018 UNLESS INDICATED OTHERWISE)

Leisure Travel

- Direct spending on leisure travel by domestic and international travelers totaled **$761.7 billion** in 2018.
- Spending on leisure travel generated **$117.4 billion** in tax revenue.
- **4 out of 5** domestic trips taken are for leisure purposes (80%).
- U.S. residents logged **1.8 billion** person-trips* for leisure purposes in 2018.
- Top leisure travel activities for U.S. domestic travelers: (1) visiting relatives; (2) shopping; (3) visiting friends; (4) fine dining; and (5) rural sightseeing.
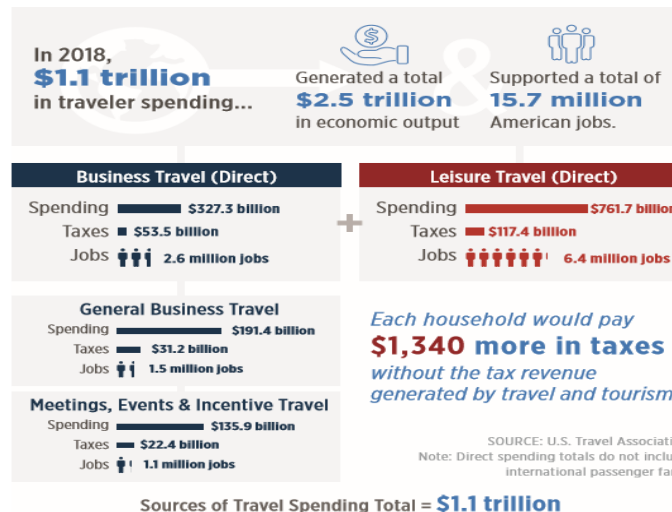
Business Travel
(Including Meetings, Events and Incentive)

- Direct spending on business travel by domestic and international travelers, including expenditures on meetings, events and incentive programs (ME&I), totaled **$327.3 billion** in 2018.
- ME&I travel accounted for **$135.9 billion** of all business travel spending.
- U.S. residents logged **463.6 million** person-trips* for business purposes in 2018.

U.S. TRAVEL INDUSTRY IMPACT

In 2018, **$1.1 trillion** in traveler spending...

Generated a total of **$2.5 trillion** in economic output

& Supported a total of **15.7 million** American jobs.

Business Travel (Direct)
- Spending $327.3 billion
- Taxes $53.5 billion
- Jobs 2.6 million jobs

Leisure Travel (Direct)
- Spending $761.7 billion
- Taxes $117.4 billion
- Jobs 6.4 million jobs

General Business Travel
- Spending $191.4 billion
- Taxes $31.2 billion
- Jobs 1.5 million jobs

Meetings, Events & Incentive Travel
- Spending $135.9 billion
- Taxes $22.4 billion
- Jobs 1.1 million jobs

Each household would pay **$1,340 more in taxes** without the tax revenue generated by travel and tourism.

SOURCE: U.S. Travel Association
Note: Direct spending totals do not include international passenger fares

Sources of Travel Spending Total = **$1.1 trillion**

By the Numbers

$1.1 trillion: Total domestic and international inbound traveler spending in the U.S. which generated a total of $2.5 trillion in economic output

15.7 million: Jobs supported by travel expenditures (includes 8.9 million directly in the travel industry and 6.8 million in other industries)

$267.9 billion: Wages shared by American workers directly employed by travel

$170.9 billion: Tax revenue generated by travel spending for federal, state and local governments

2.9%: Percentage of nation's gross domestic product (GDP) attributed to travel and tourism
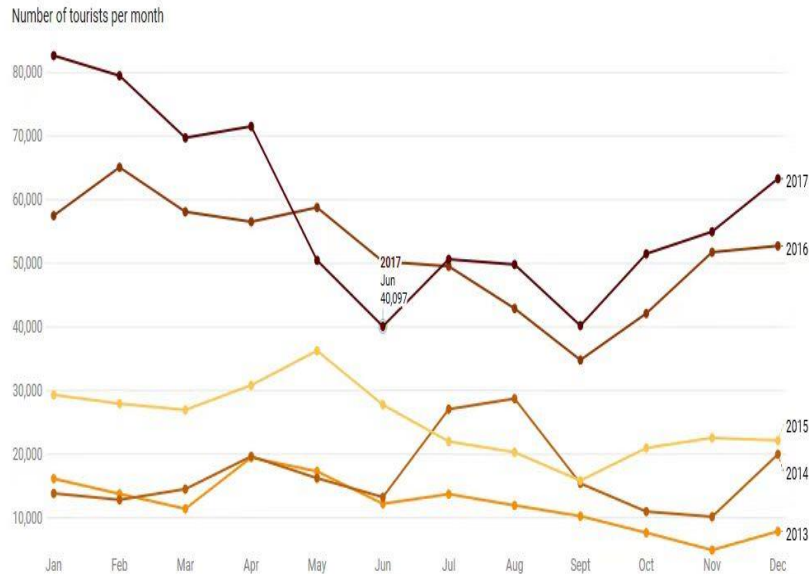
1 out of 10: U.S. jobs that depend on travel and tourism

https://www.rappler.com/newsbreak/in-depth/215274-panglao-bohol-riding-tourism-cash-cow

In this report, from our perspective if the two bar charts showing business travel and leisure travel can be turned into one bar chart, the contrast will be more obvious. In addition, there are a lot of data that can be presented graphically, making it a more concise report.
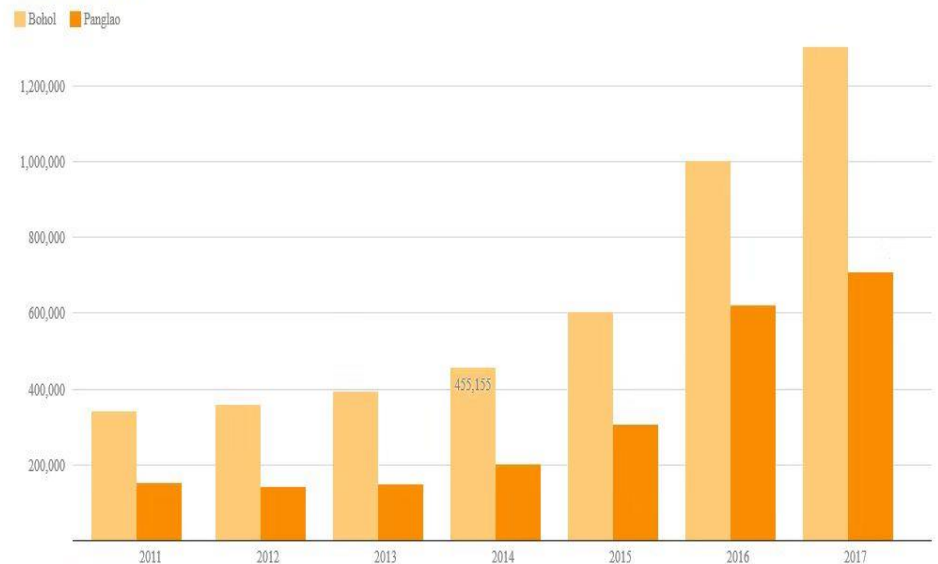
Reviewing existing works

Tourist seasons in Panglao, Bohol
Number of tourists per month
Source: Panglao Tourism Office, as of April 2018

Tourist arrivals
Source: DOT Region VII and Panglao Tourism Office

https://www.rappler.com/newsbreak/in-depth/215274-panglao-bohol-riding-tourism-cash-cow

We can clearly see the change in the person's flow from 2013 to 2017, which is easy to understand for the reader. The number of tourists in the two cities is compared year by year, and the speed of tourist development in the two cities can be clearly seen.

Research Questions

- RQ1: Time Principle

The trend of change in the number of visitors to Hong Kong over the past three years and the trend of the annual number of visitors to Hong Kong

- RQ2: Regional Principle

Trends in the number of visitors to Hong Kong from different countries and trends in the number of visitors to Hong Kong from different region

- RQ3: Multi-dimensional comparison

Changing trends in the growth rate of tourists visiting Hong Kong in different countries or regions

Method

- ## Data source

Our data is mainly obtained from My PartnerNet - Hong Kong Tourism Board. We selected the data of visitors to Hong Kong in the past three years.

- ## Measurements or variables

In our data, the unit of analysis is the number of people from different markets or regions each month. The variables we are targeting at is at the following format.

Data set	URL	Focused Variables
PartnerNet	https://securepartnernet.hktb.com/tc/my_partnernet/index.html?reqlogin=1&themeClassName=research_statistic	Regions/Markets, Date, Total arrivals, Year on year growth

Method

- ## Data processing

The raw data we got from the PartnerNet are three copies in Excel format. The first step is to convert the three Excel files into CSV files.

After this, we merged the columns year and month into a new column named date. And we converted the string type with the thousands separator in the column "total arrivals" to the floating point number. Finally, the columns were renamed and reordered.

There are also some data cleaning in the process of visualization. When we made the bar chart, we selected the total arrivals from each market across the year and summed them up and sorted them in descending order according to the number of total arrivals.

- The raw data

	year	quarter	month	market regions / markets	total arrivals	year on year (yoy) growths (%)
0	2016	Q4	10	Mainland China	3,723,837	-3.5
1	2016	Q4	11	Mainland China	3,388,958	-3.5
2	2016	Q4	12	Mainland China	3,948,482	6.1
3	2017	Q1	1	Mainland China	4,353,505	7.7
4	2017	Q1	2	Mainland China	3,138,728	-6.8

- The cleaned data

	markets	date	total arrivals	year on year (yoy) growths (%)
0	Mainland China	2016-10-01	3723837.0	-3.5
1	Mainland China	2016-11-01	3388958.0	-3.5
2	Mainland China	2016-12-01	3948482.0	6.1
3	Mainland China	2017-01-01	4353505.0	7.7
4	Mainland China	2017-02-01	3138728.0	-6.8

	markets	total arrivals
15	Taiwan	2173728.0
14	South Korea	1595546.0
17	USA	1336155.0
7	Japan	1310512.0
11	Philippines	949418.0

Results :Data visualization


Total arrivals across three years
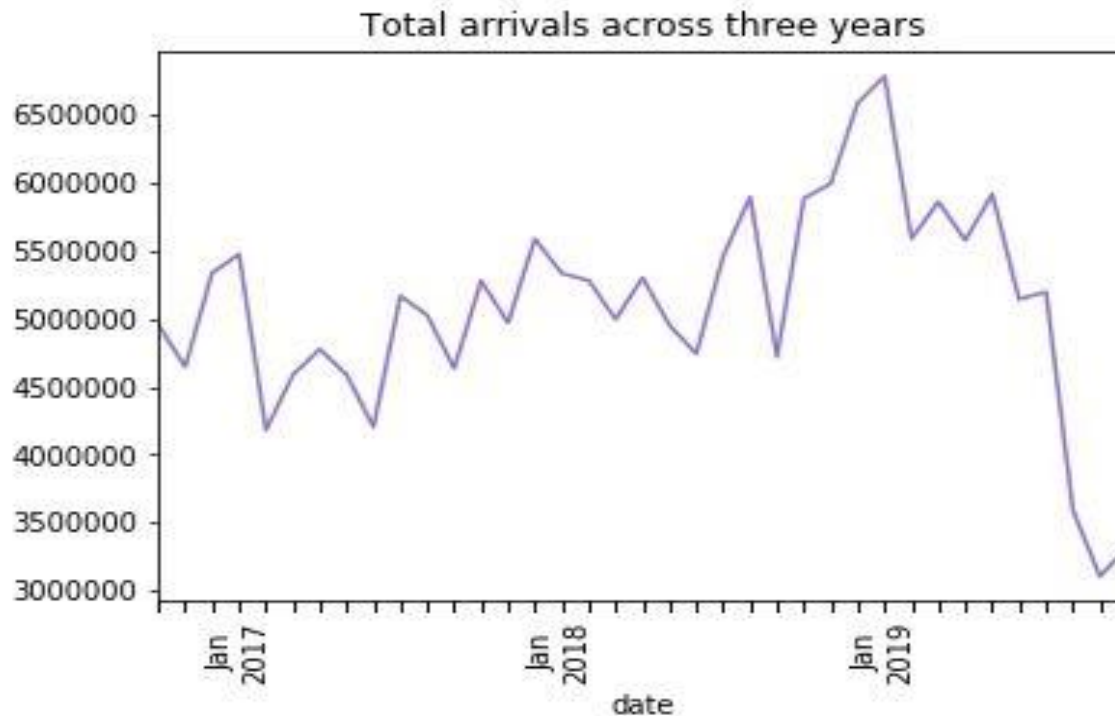
The figure shows the change in the number of visitors to Hong Kong over the past three years, and the number of visitors to Hong Kong has been changing from 2017 to 2018, although the volatility is different, but the trend is generally the same, the difference between the peak tourist season and the off-season is more obvious. By 2019, the number of changes in the first two quarters was still in the normal range of volatility, but since April and May, the number of visitors has started to decline sharply, and the same period in 2018 has indeed increased significantly, with significant differences between the different years of the same period.
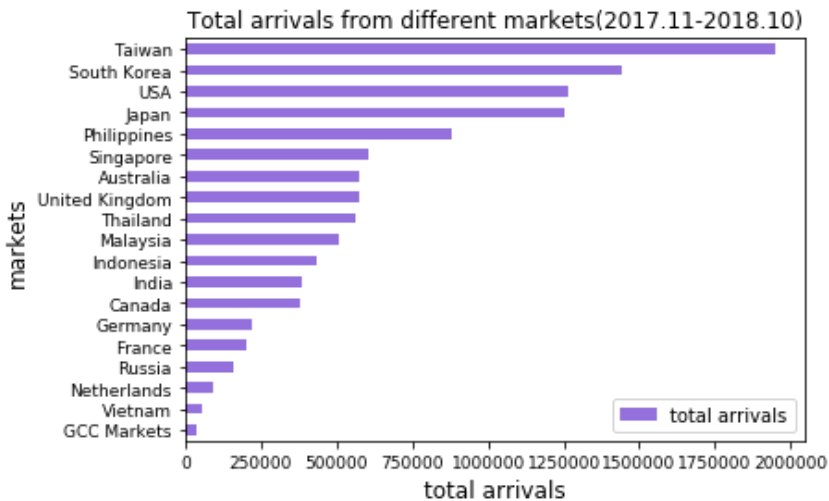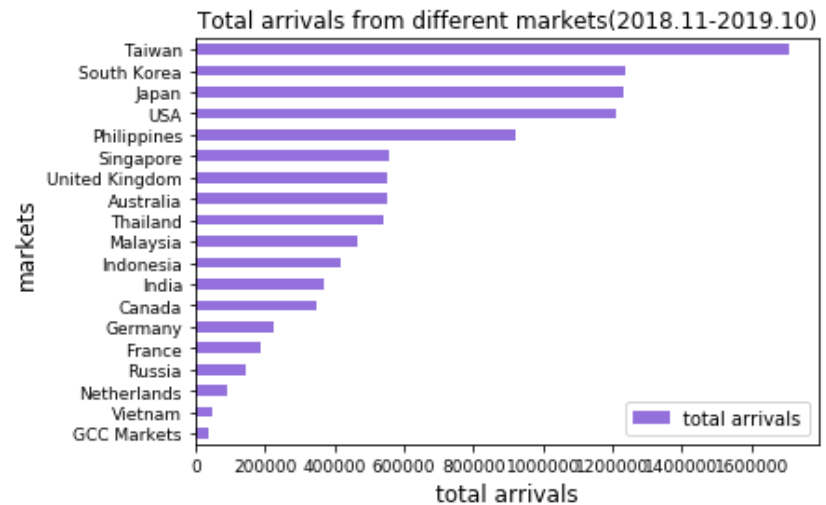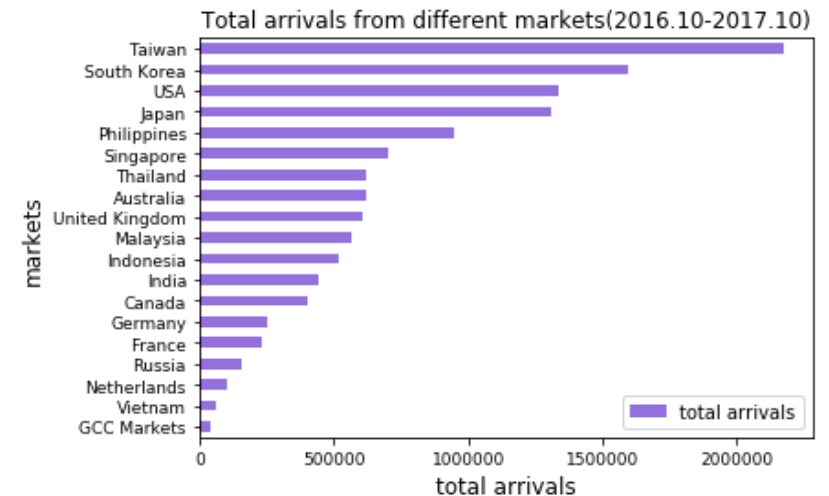
Results :Data visualization
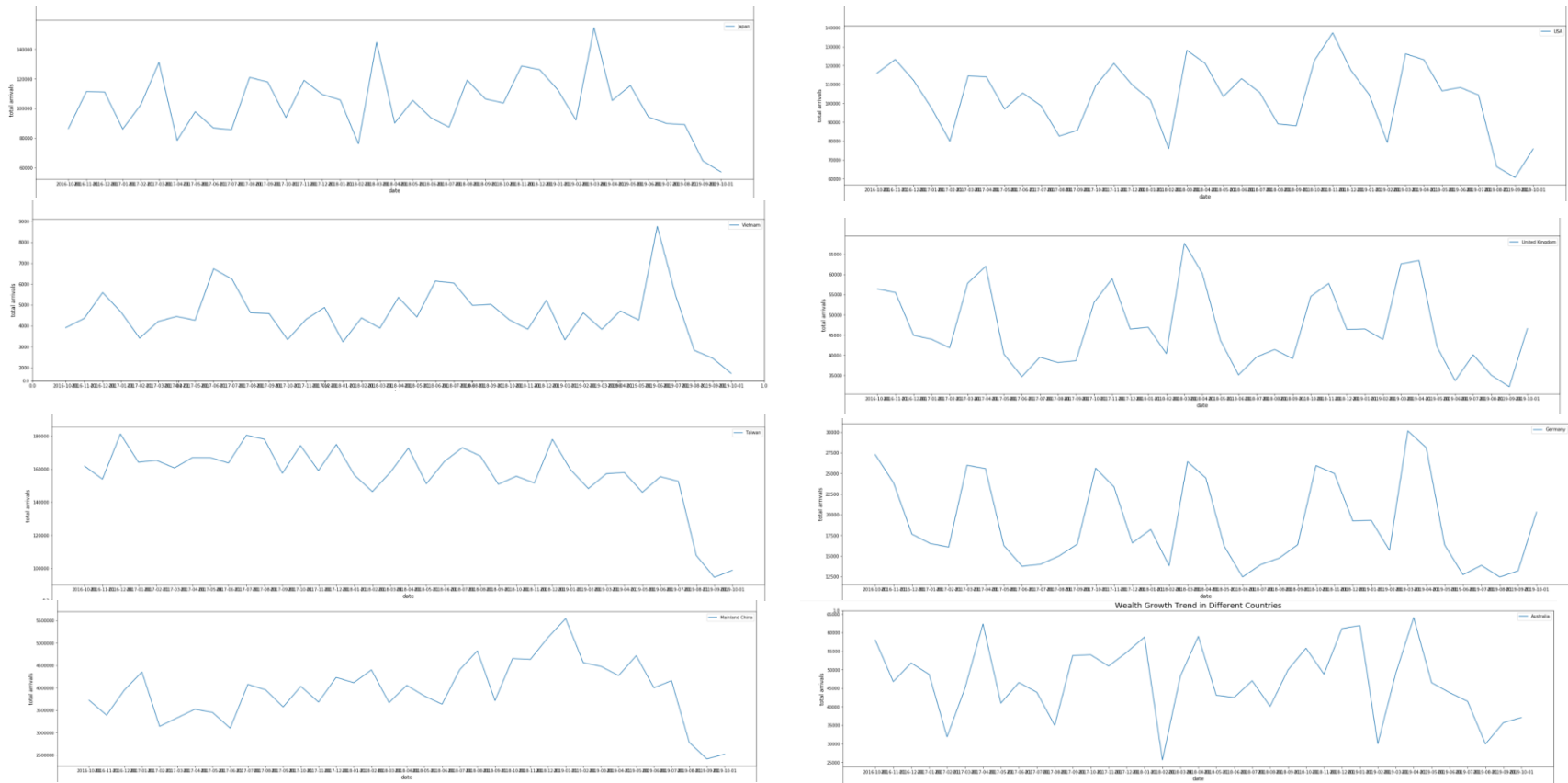
As can be seen, the number of visitors to Hong Kong from various countries and regions in the three years shows a fluctuating trend, in line with the trend chart of visitors within three years. However, it is clear that the number of visitors from Asian countries and regions to Hong Kong in the second half of 2019 has shown a marked downward trend, while the number of visitors from Europe the United States is on the rise during the same period.

Results :Data visualization
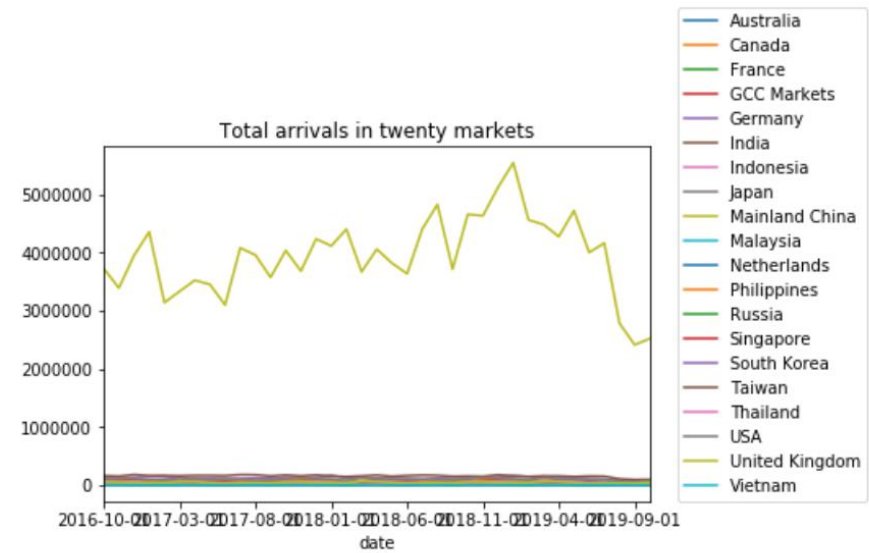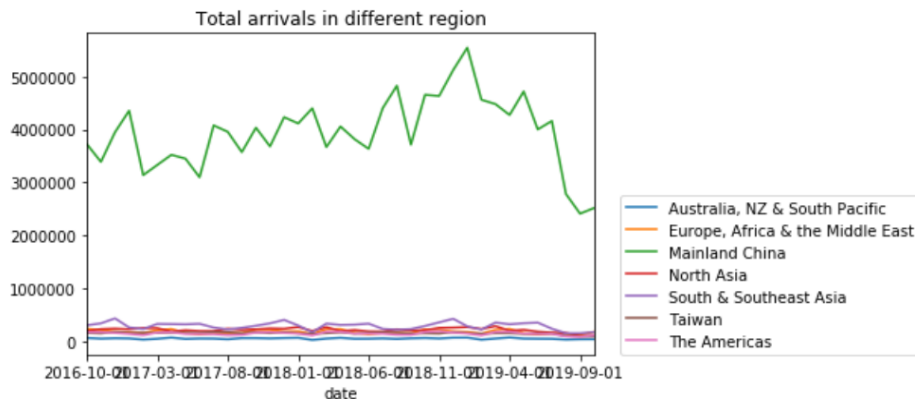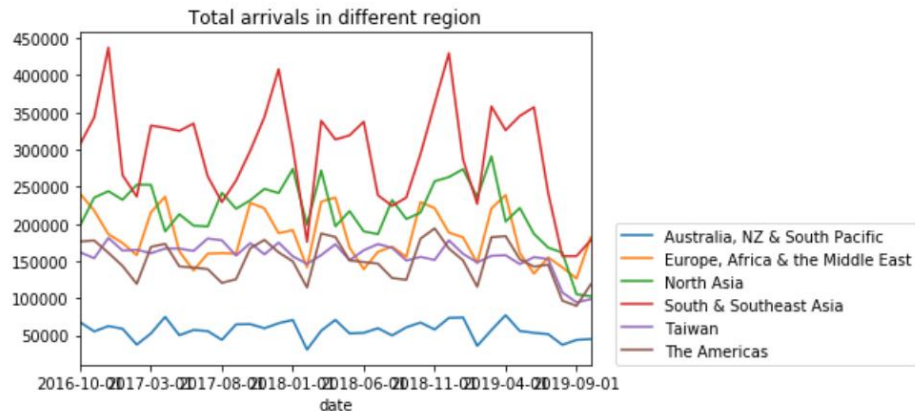
The three images show the changing trend of visitors from different regions to Hong Kong over the past three years, with it becoming clear that the number of tourists from mainland China far exceeds that of any other country or region, and that the volatility trend of other countries or regions appears to be even flat in mainland China. But the icon on the left removes the data from mainland China to clearly show the trend changes in other countries and regions. More obviously, there was a decline in tourists from all countries and regions in the winter of 2017 and 2018, and the decline in visitor numbers was evident in the second half of 2019.

Results :Data visualization

Total arrivals from different markets(2016.10-2017.10)

Total arrivals from different markets(2018.11-2019.10)

Total arrivals from different markets(2017.11-2018.10)

Excluding the very obvious figures in the mainland, it is clear from the table that Hong Kong tourists come mainly from Taiwan, South Korea, Japan and the Philippines in Asia. As for European and Americas countries, Hong Kong tourist are mainly from the United States and Britain. Few tourists from France, Russia, Netherlans and Gulf countries come to Hong Kong .The number of visitors from these countries and regions has increased from 2016 to 2017, with a significant decrease in the number of visitors in the same period to 2019.

Results :Data visualization
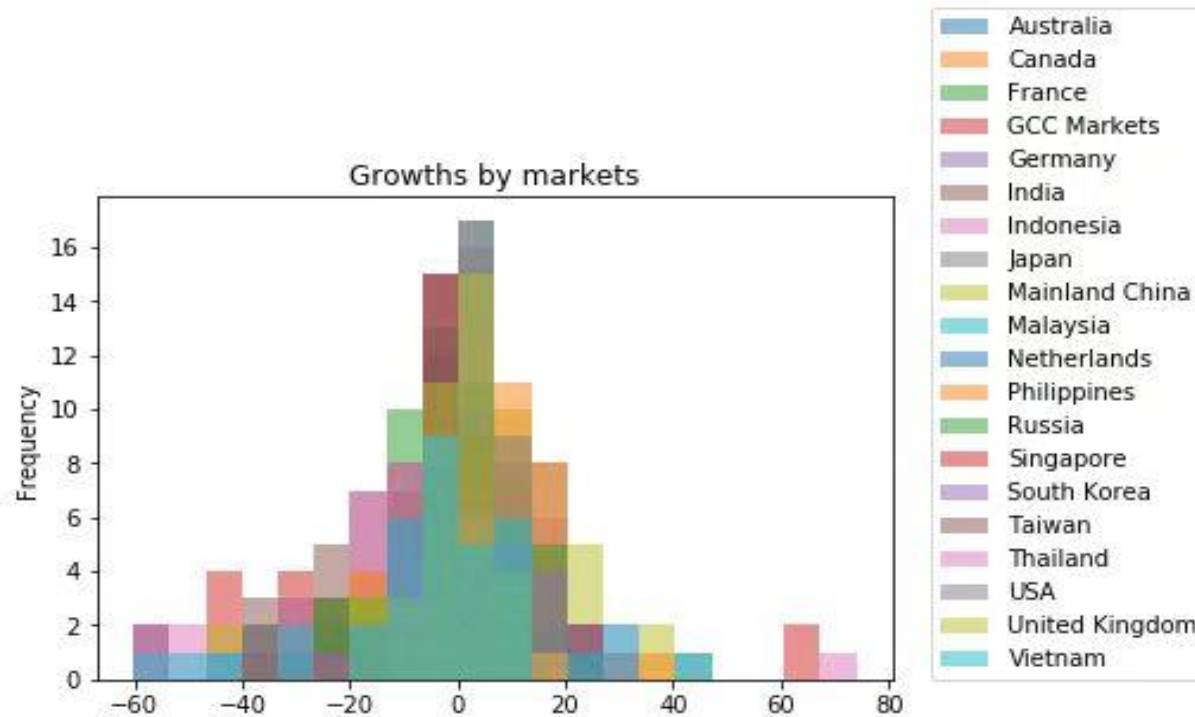
Comparing the time and regional principles, the United States, Japan, Singapore and the Gulf countries have higher growth rates, excluding mainland China. In the Netherlands and Germany in Europe, the growth rate of visitors to Hong Kong was negative

Results :Data visualization
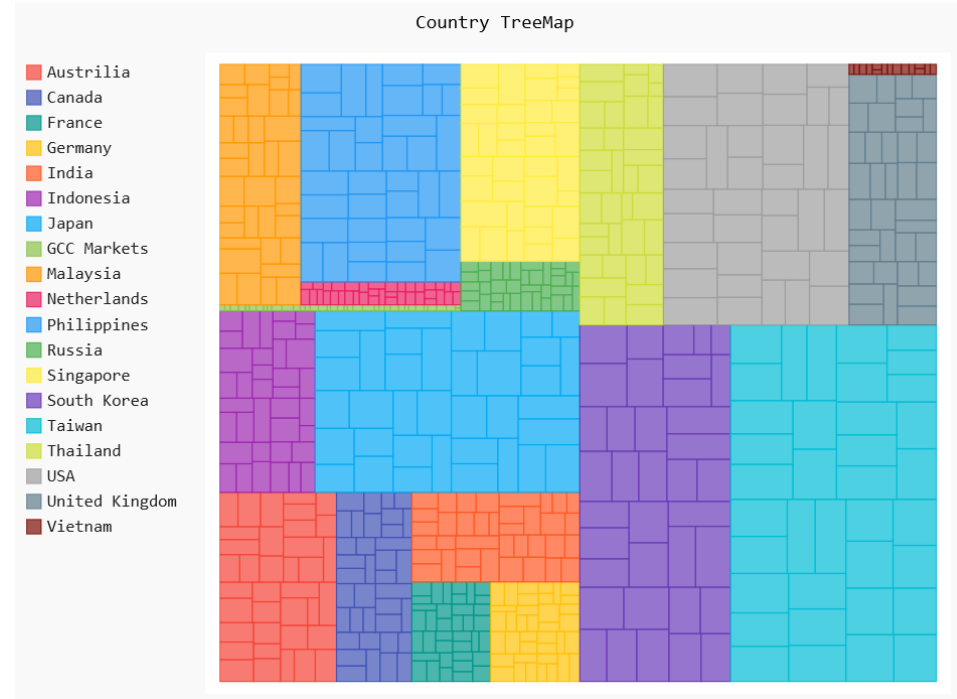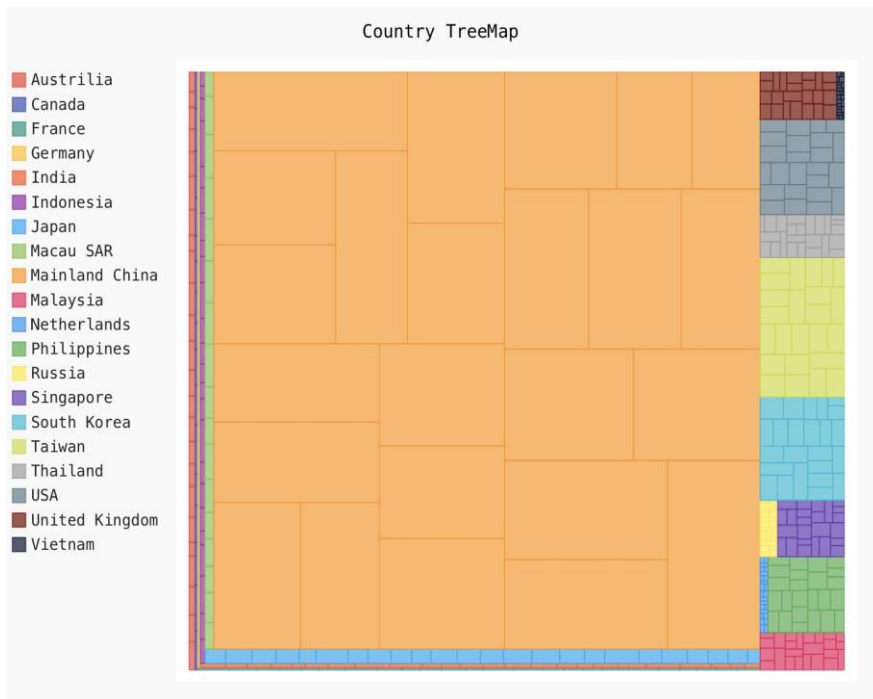
From the regional tree map, it is very obvious that mainland China is the main source of tourism in Hong Kong, in the right-hand chart to remove the value of mainland China, you can find that Hong Kong's main source of tourists from Taiwan, Japan, the United States, South Korea and other places

Analysis conclusion

- From October 2016 to October 2019, the number of tourists visiting Hong Kong fluctuated. The total number of tourists remained between 4 million and 6.5 million before the winter of 2018. Winter 2018 is the peak period of the number of tourists visiting Hong Kong. The total number exceeds 6.5 million.

- Visitors from mainland China are the main source of tourists from Hong Kong, which greatly exceeds any country and region. Tourists from Southeast Asian countries are also the main source of tourists from Hong Kong. There are fewer tourists from Europe and the Americas.

- Since April 2019, affected by demonstrations in Hong Kong, the number of tourists has plummeted, and the number of tourists maintained around 300,000, which is lower than at any time in three years.

- The number of tourists from Asian countries and regions has continued to decline since April 2019, but the number of tourists from European American countries or regions has increased slightly.

- Compared to the number of tourists in 2017, the total number of tourists visiting Hong Kong in 2018 has increased, but in the same period in 2019, the number of people affected by demonstrations has declined.

- In terms of tourist growth rates, the United States, Japan, and Singapore have higher rates of visits to Hong Kong, while the Netherlands and Germany in Europe have negative growth rates.

These are all information about project
[Trend analysis of visitors from different nationalities in Hong Kong
from 2016 to 2019]

Thank you