





Nur Natasha Aishah  
Binti Mohd Arrifin  
2019252386  
PROJECT LEADER



Aizat Bin Mohd Yunus  
2019218746  
DATA SCIENTIST




Fatin Anis Natasya  
Binti Mohd Sabri  
2019218956  
DATA ANALYST



Muhammad Irfan Syafi  
Bin Zaharuddin  
2019892312  
DATA ENGINEER

## Description

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- Travelling is simply defined as heading from one destination to another. Getting to places can be quite tough to some, hence why the human population has deemed this as a problem. Even so, modern problems can be overcome with the help of modern solutions. There are multiple ways to travel. For instance, by land, by air and by water. Thanks to modern engine technology, we can now move through space at an inhuman speed (J. Lehrer, 2010).
  - Air transportation is the only transportation network that makes it vital for tourism and global commerce (Air Transport Action Group, 2005). Malaysia itself has several companies that serve in this sector, and they all share the same purpose to their clients. For instance, there are AirAsia, Malaysia Airlines, Firefly and more.
  - AirAsia is a company that offers air transport services for their customers. AirAsia reported that the airline has flown 217 million passengers since the beginning of its service and connected 10 ASEAN countries (AirAsia, 2014). This can be a solid proof of how AirAsia is one of the go-to choices for people who want to travel by air.
  - The service innovations in the airline industry particularly in the form of low-cost carriers advancing new service business models propelled airlines to touch base on several key services marketing soft concepts such as customer satisfaction, service quality and branding apart from measurable marketing metrics such as growth, revenue, and profits (Chapman, 2005). It is crucial for airlines companies to keep track of their growth in data regarding their customers and this can be a big influence as a marketing strategy.

## Problem Statement

- COVID-19 made an impact on the aviation industry. The tourism industry as a whole has been seriously impacted by the pandemic, with estimates ranging from 850 million to 1.1 billion foreign tourists lost and \$910 billion to \$1.2 trillion in tourism export profits lost. (Airlines IATA, 2021)
- The aviation industry has a hard time on making marketing strategy since people will book flight tickets on different time depending on price, festivals, and urgencies.

## Dataset

- AirAsia bookings data
- The dataset is obtained from Kaggle.com
- Dataset focused on flight booking data of AirAsia only
- Dataset has 50,000 instances and 15 attributes
- Dataset is from 2020

### BOOKINGS MADE

50000

TICKET  
PURCHASED

79562

FOOD & BEVERAGES  
PURCHASED

21357

INSURANCE  
PURCHASED

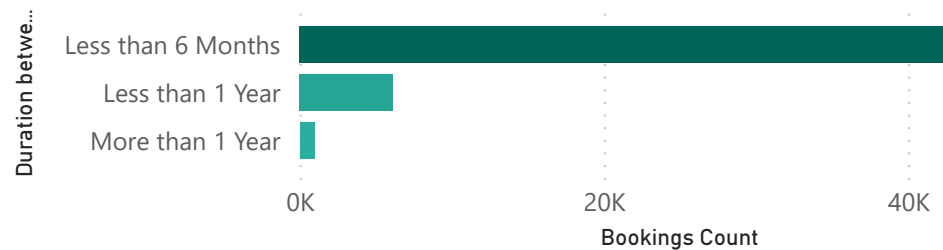
7478

EXTRA BAGGAGE  
PURCHASED

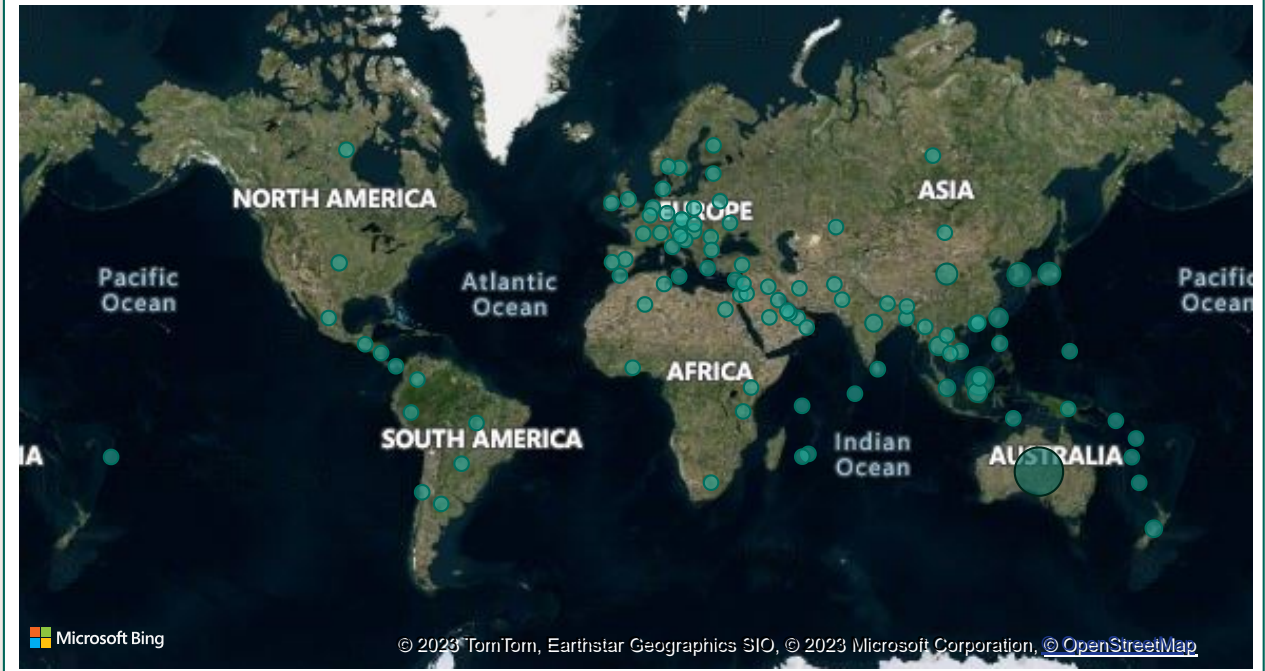
33439

### Number of Days Between Booking Date & Travel Date

Count of PURCHASE LEAD BY YEARS 0.98K 42.88K



### BOOKINGS MADE BY COUNTRY



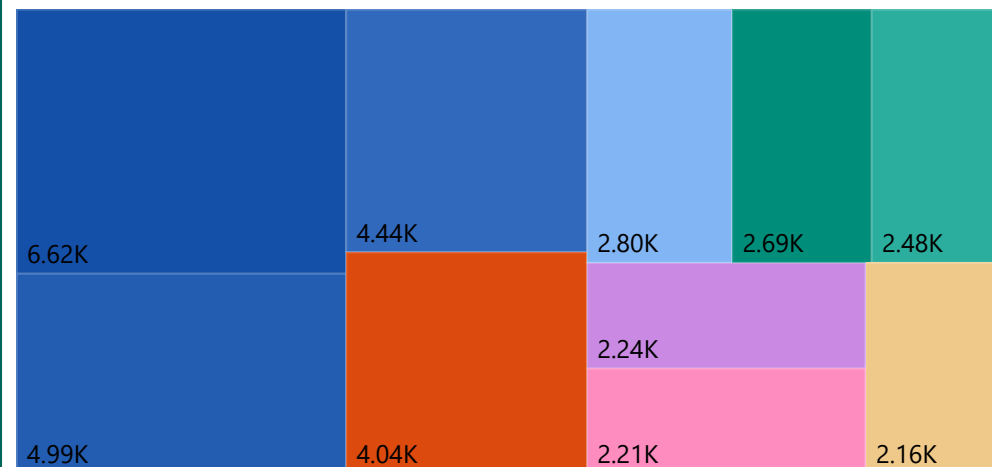
### TOP 10 MOST VISITED PLACES

Destination

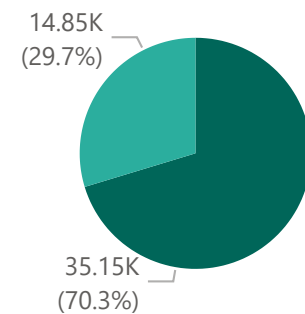
- ☐ Select all
- ☐ ICN
- ☐ KIX
- ☐ KUL
- ☐ MEL
- ☐ OOL
- ☐ PEN
- ☐ PER
- ☐ SIN
- ☐ SYD
- ☐ TPE

### TOP 10 MOST VISITED PLACES

Destination ● SYD ● PER ● MEL ● TPE ● OOL ● KUL ● PEN ● KIX ● ICN ▶

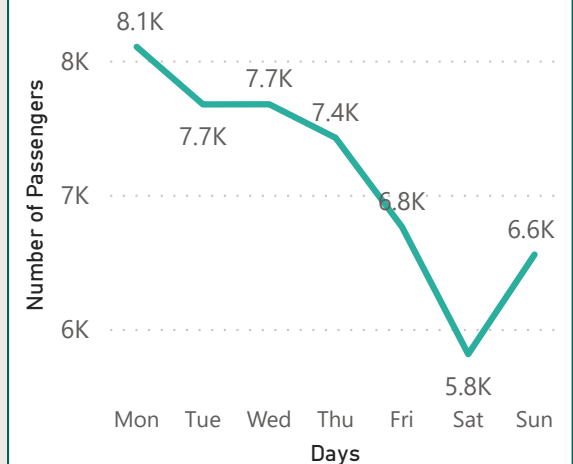


### TYPE OF SEATS PURCHASED



● Standard ... ● Preferred ...

### NUMBER OF PASSENGERS BY FLIGHT DAY





## Analysis & Findings

Number of Days  
Between Booking Date  
& Travel Date

Bookings Made By  
Country

Top 10 Most Visited  
Places

Type of Seats  
Purchased

Number of Passengers  
By Flight Day

## Number of Days Between Booking Date & Travel Date

BOOKINGS MADE

50000

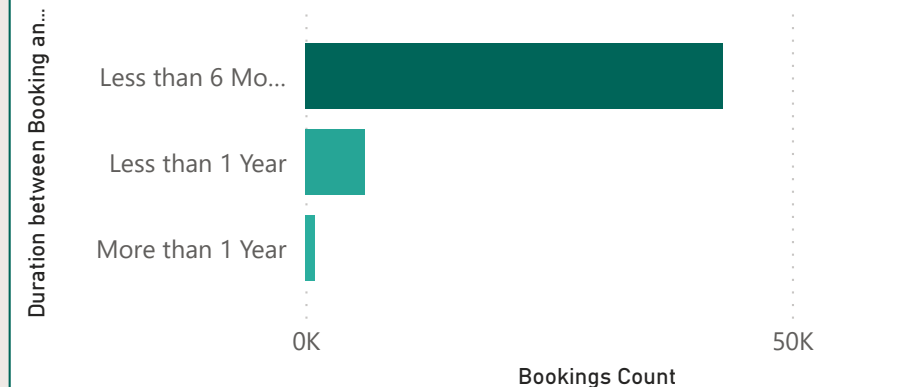
DURATION  
BETWEEN  
BOOKING DATE ...

PURCHASE ...

- ☒ Select all
- ☒ Less than 1 Year
- ☒ Less than 6 Mo...
- ☒ More than 1 Year

Number of Days Between Booking Date & Travel Date

Count of PURCHASE LEAD BY YEARS 0.98K 42.88K



The graph above is a horizontal bar chart that is used to compare different categories. It shows the comparison of bookings count and duration between booking date and travel date for each category. The blue bar chart represents the duration that is less than six months while the maroon bar chart is represents less than one year duration. The red bar is the more than one year duration. Based on the graph, the bookings count for duration that is less than six months is the highest with total of 42,881 bookings. The count for duration less than one year is 6,139 which is lower than the count for duration of less than six months. Lastly, there is a significant different in bookings count between less than six months duration and more than one year duration. The count of bookings for more than one year is only 980. This can conclude that, people more prefer to book ticket in duration that less than six months from the travel date.

## Analysis & Findings

Number of Days  
Between Booking Date  
& Travel Date

Bookings Made By  
Country

Top 10 Most Visited  
Places

Type of Seats  
Purchased

Number of Passengers  
By Flight Day

## Bookings Made By Country

BOOKINGS MADE

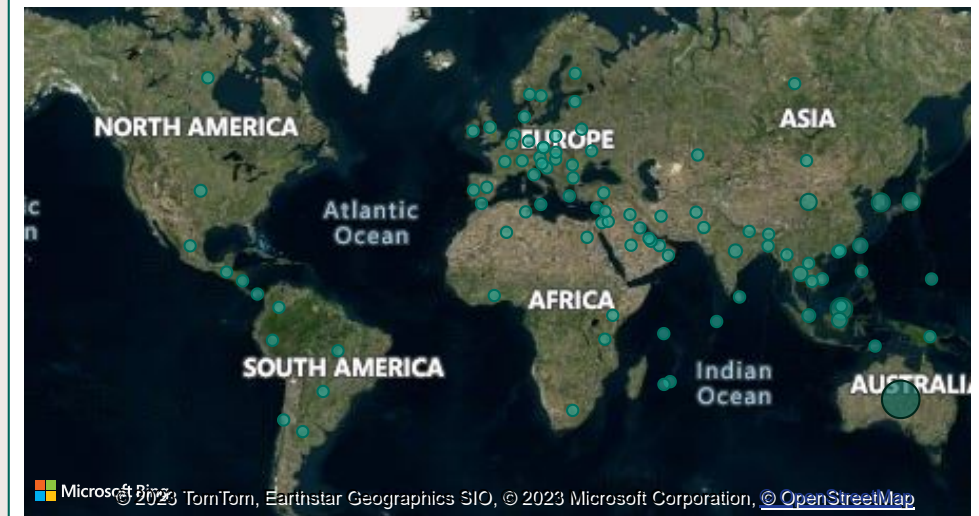
50000

TOP 10 MOST  
BOOKINGS MADE  
BY COUNTRY

BookingCou... ▾

- ☐ Select all
- ☐ Australia
- ☐ China
- ☐ India
- ☐ Indonesia

BOOKINGS MADE BY COUNTRY



The world map above shows bookings made by respective countries. The size of the circle on the map represents the number of booking tickets made by each country. The larger the size of the circle, the larger the number of booking tickets made by the location. The total number of countries that make bookings with AirAsia are 104. Overall, a sum of 50,000 tickets were successfully booked. The top 10 countries that use the service of AirAsia are Australia, Malaysia, South Korea, Japan, China, Indonesia, Taiwan, India and New Zealand. Australia is the country with the highest bookings made, followed by Malaysia. The summation number of bookings made by them are 17,872 and 7,174 respectively. The lowest booking made are by countries of the continents of Africa and Middle East. This shows how people from Asia prefer to use AirAsia as their mode of air transportation to travel. Meanwhile, the countries of Europe and Middle East do not prefer to use AirAsia for flight bookings. A factor that might contribute to this might be because they do not recognize AirAsia.

## Analysis & Findings

Number of Days  
Between Booking Date  
& Travel Date

Bookings Made By  
Country

Top 10 Most Visited  
Places

Type of Seats  
Purchased

Number of Passengers  
By Flight Day

## Top 10 Most Visited Places

BOOKINGS MADE

50000

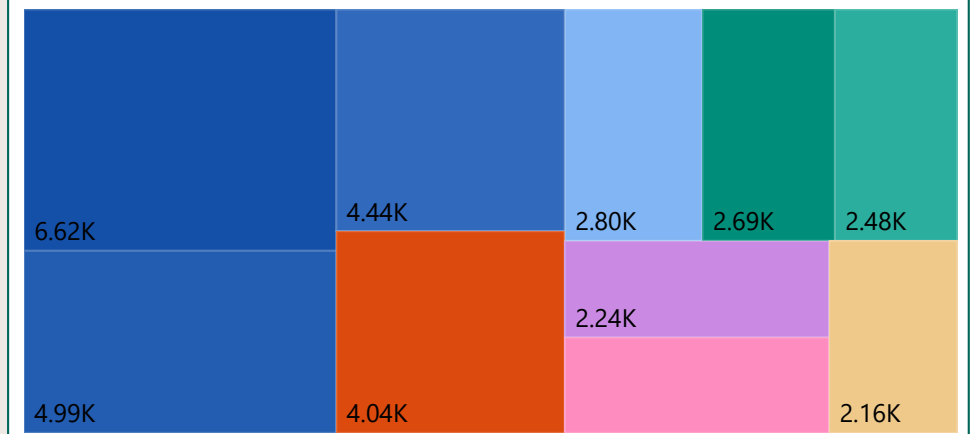
TOP 10 MOST  
VISITED PLACES

Destination

- ☐ Select all
- ☐ ICN
- ☐ KIX
- ☐ KUL
- ☐ MEL
- ☐ OOL

TOP 10 MOST VISITED PLACES

Destination ● SYD ● PER ● MEL ● TPE ● OOL ● KUL ● PEN ● KIX ▶



The chart is being visualized using a tree map chart. Based on the tree map hierarchy diagram, Sydney is the most visited place by tourists around the world that use AirAsia flight services. Based on the graph, the top ten of most visited country is Australia, Taiwan, Malaysia and Singapore. The highest booking data on visited place is Sydney with total of 6,616 bookings. In order to understand the graph better and clearly see the differences between the data, gradient colour is being used from dark (highest) to light (lowest) for the top 10 visited places. The top 3 most visited places is from Australia which 6,616 bookings to Sydney, 4,992 bookings to Perth and 4,444 bookings to Melbourne. From this, we can create a hypothesis that promoting Australia would be a great marketing opportunity for economic recovery. Another most visited places is Taiwan which is Taoyuan with 4,044 bookings. Followed by Gold Coast Airport landing destination in Australia with 2,796 bookings. Malaysia's favourite landing destinations are Kuala Lumpur Airport with 2,688 bookings and Penang Airport with 2,483 bookings. Followed by Kansai, Japan with 2,240 bookings, Incheon, South Korea with 2,157 bookings and Singapore with 2,157 bookings.

## Analysis & Findings

Number of Days  
Between Booking Date  
& Travel Date

Bookings Made By  
Country

Top 10 Most Visited  
Places

Type of Seats  
Purchased

Number of Passengers  
By Flight Day

## Type of Seats Purchased

BOOKINGS MADE

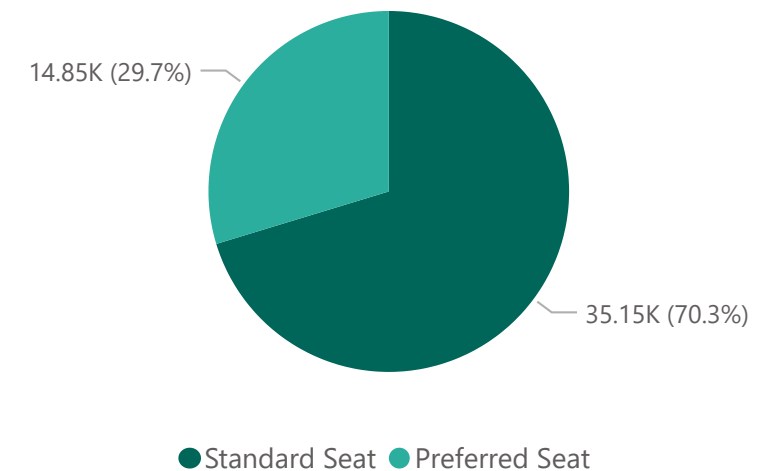
50000

TOP 10 MOST  
BOOKINGS MADE  
BY COUNTRY

TYPE OF SE... ▾

- ☒ Select all
- ☐ Preferred Seat
- ☐ Standard Seat

TYPE OF SEATS PURCHASED



The pie chart above shows the type of seats purchased per person on AirAsia flight services. There are two types of seats which are standard seats and preferred seats. The graph clearly shows that the percentage for standard seat purchased is 70.3% of the data which is higher than the number of preferred seats purchased by the customers. The number of standard seats purchased is 35,152 while the preferred seat type is being purchased around 14,848 with percentage of 29.7%. In conclusion, people prefer standard seats more as they are cheaper than the other type.



## Analysis & Findings

Number of Days  
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Bookings Made By  
Country

Top 10 Most Visited  
Places

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Number of Passengers  
By Flight Day

## Number of Passengers By Flight Day

BOOKINGS MADE

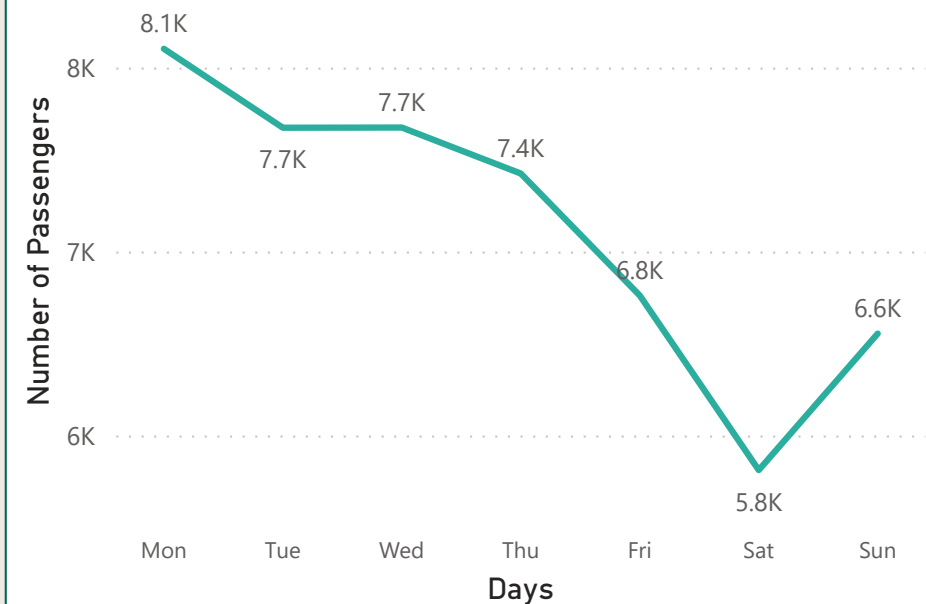
50000

TOP 10 MOST  
BOOKINGS MADE  
BY COUNTRY

Days

- ☐ Select all
- ☐ Mon
- ☐ Tue
- ☐ Wed
- ☐ Thu
- ☐ Fri
- ☐ Sat
- ☐ Sun

NUMBER OF PASSENGERS BY FLIGHT DAY



The line chart above shows the number of flight's passengers per day. The line chart is used to show the change of trend over time and it is suitable in analyzing continuous data. Based on the graph, the number of passengers decrease slightly from Monday to Tuesday then increase by one on Wednesday. From Wednesday to Saturday, the number of passengers drop from 7,674 to 5,812 then increase to 6,554 on Sunday. The highest number of passengers is on Monday with total of 8,102 passenger. The lowest number of passengers is on Saturday with total number of 5,812 passenger. Overall, the total numbers of passenger on weekdays is higher than the total number of passengers on weekend.