# Hotel Bookings Analysis

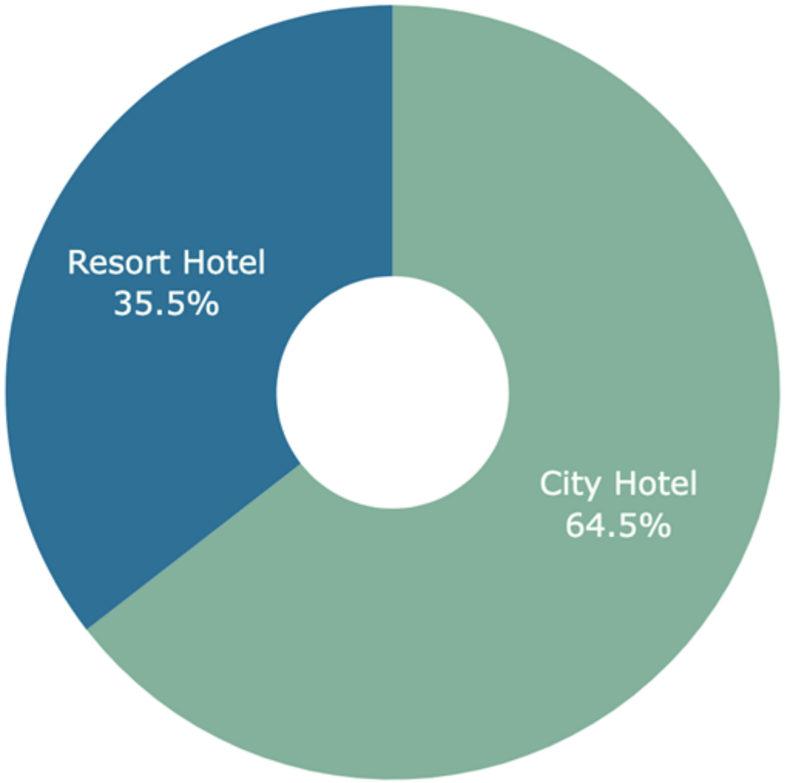
MARTA MALECKA

DATA ANALYTICS

FINAL PROJECT

DEC 2021

# Dataset Overview




## BASIC INFO ABOUT THE DATA SET:

- Booking information for a city hotel and a resort hotel
- Location - Portugal
- Exact location & name unknown
- Only completed (checked-out) bookings
- One full calendar year
- Dataset size after cleaning: 33254 bookings

# Objective

## ANSWER THE FOLLOWING 3 QUESTIONS FOR EACH HOTEL:

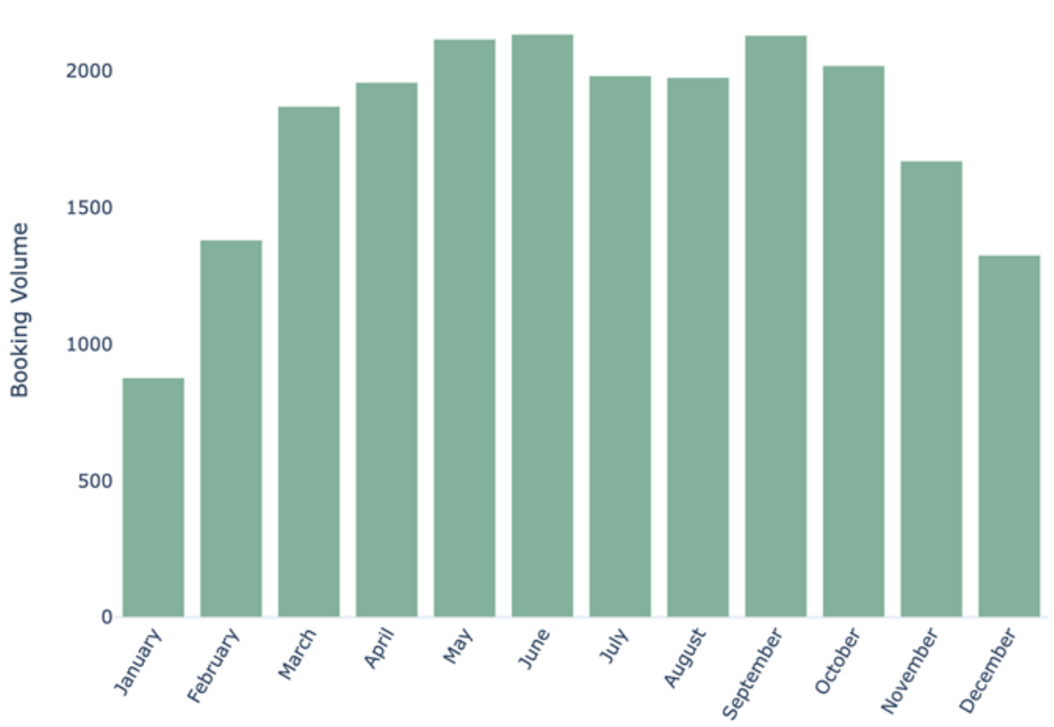
1.What is the seasonality and what are the top performing months?
2.What are the top countries in terms of bookings and/or revenue?
3.What´s the most frequent guest type?

## ALSO:

Delve into the use of Python for data analysis in the hospitality industry

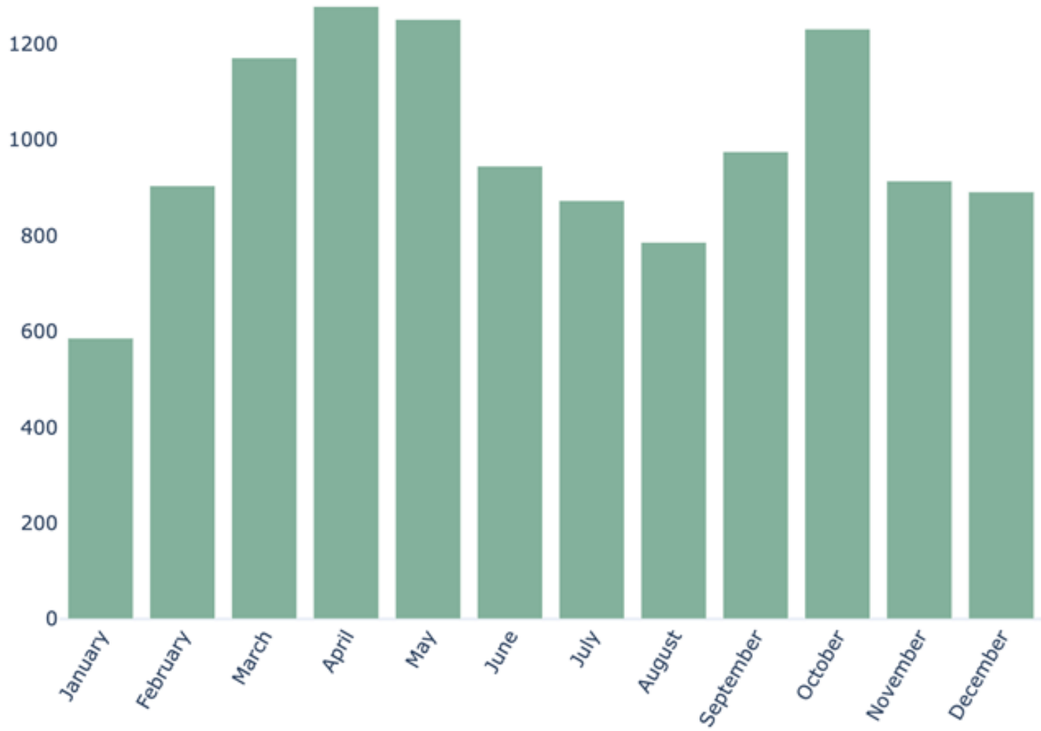
# What´s the booking volume along the year?

## CITY HOTEL




Stable march-to-october high season.

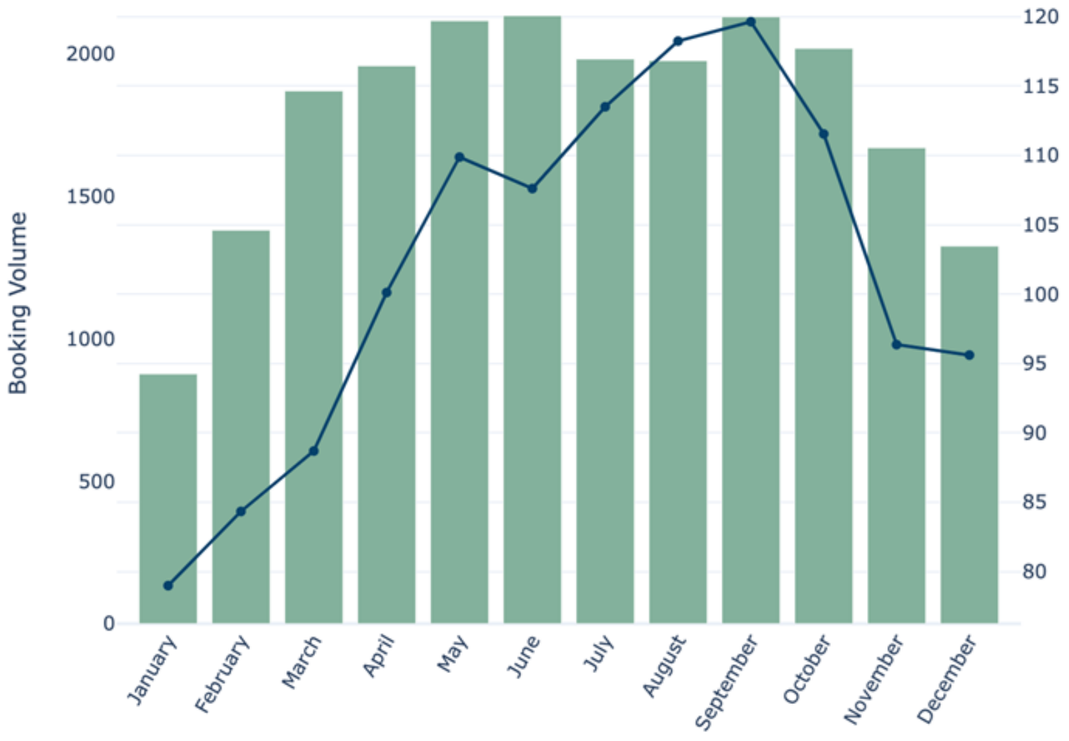
## RESORT HOTEL



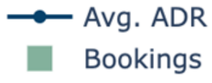

Deep drop in summer, why?

# Does ADR affect booking seasonality?

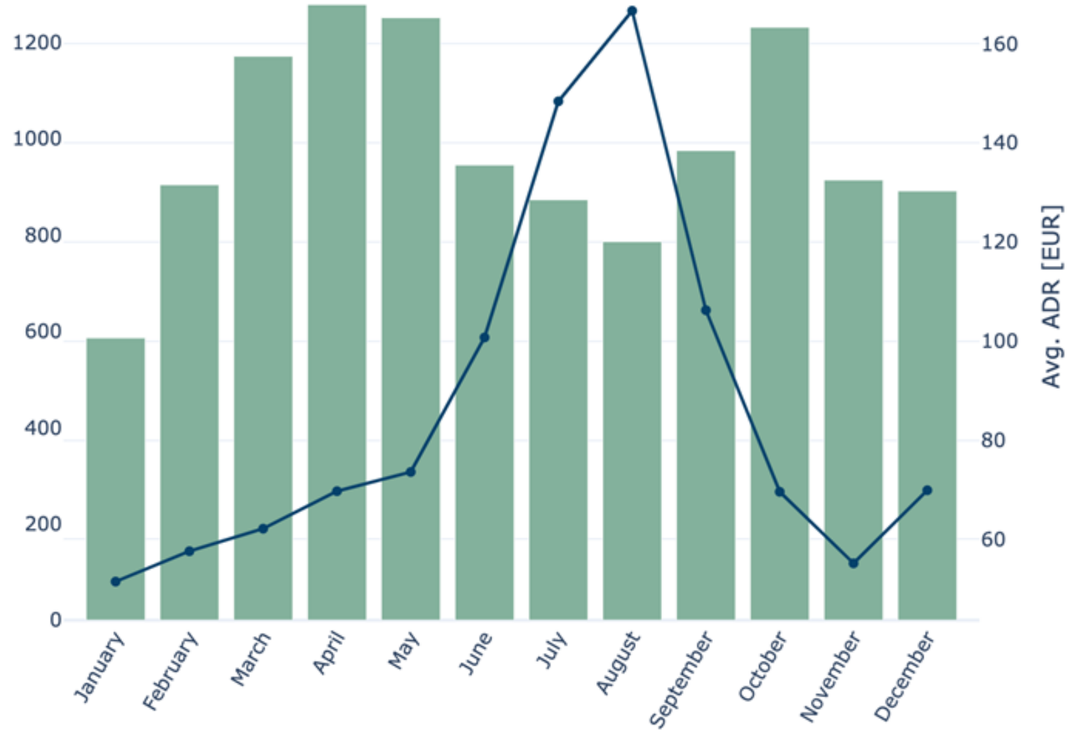
## CITY HOTEL




ADR: +54%




## RESORT HOTEL

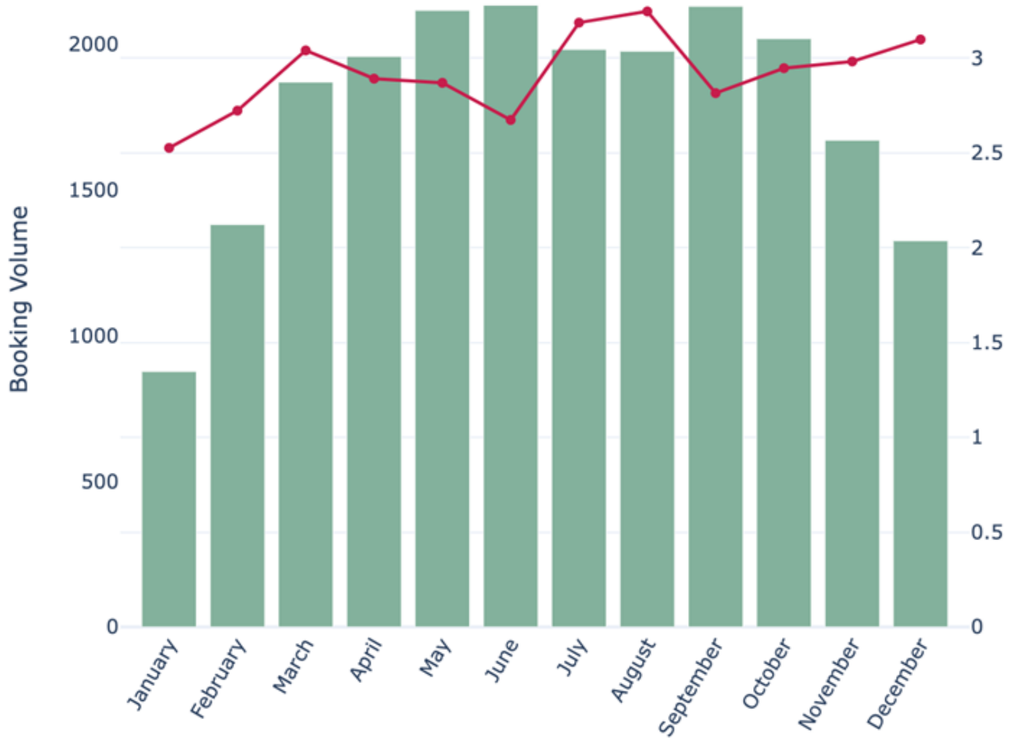



ADR: +225%

Is price a deterrent in summer?

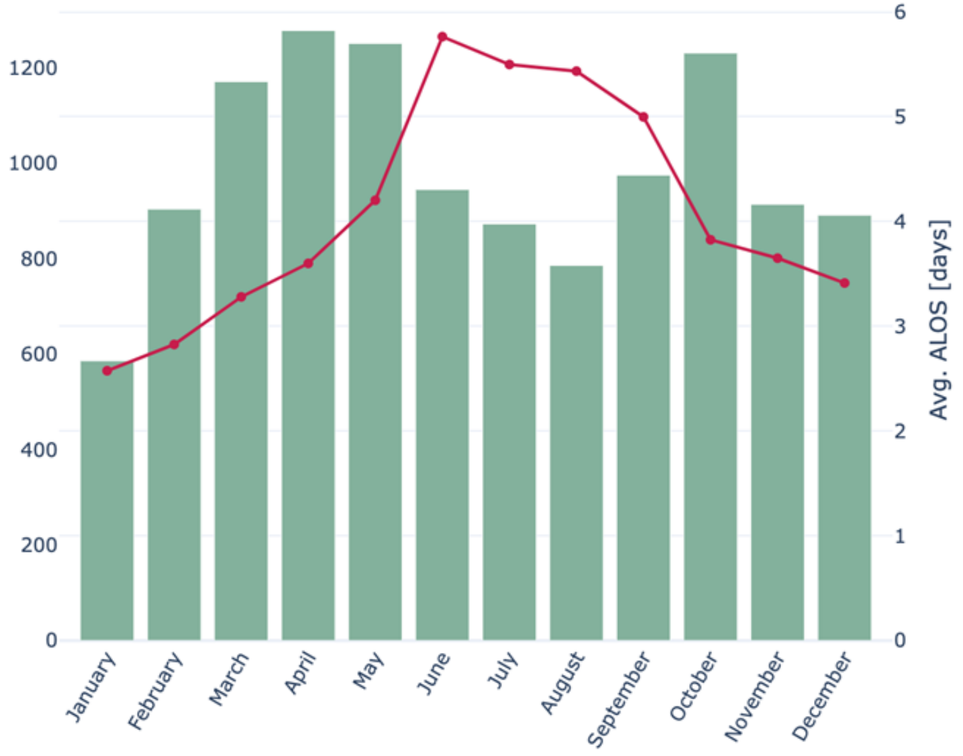
# What about the average length of stay along the year?

## CITY HOTEL




Stable ALOS over the year: 2-3 days.

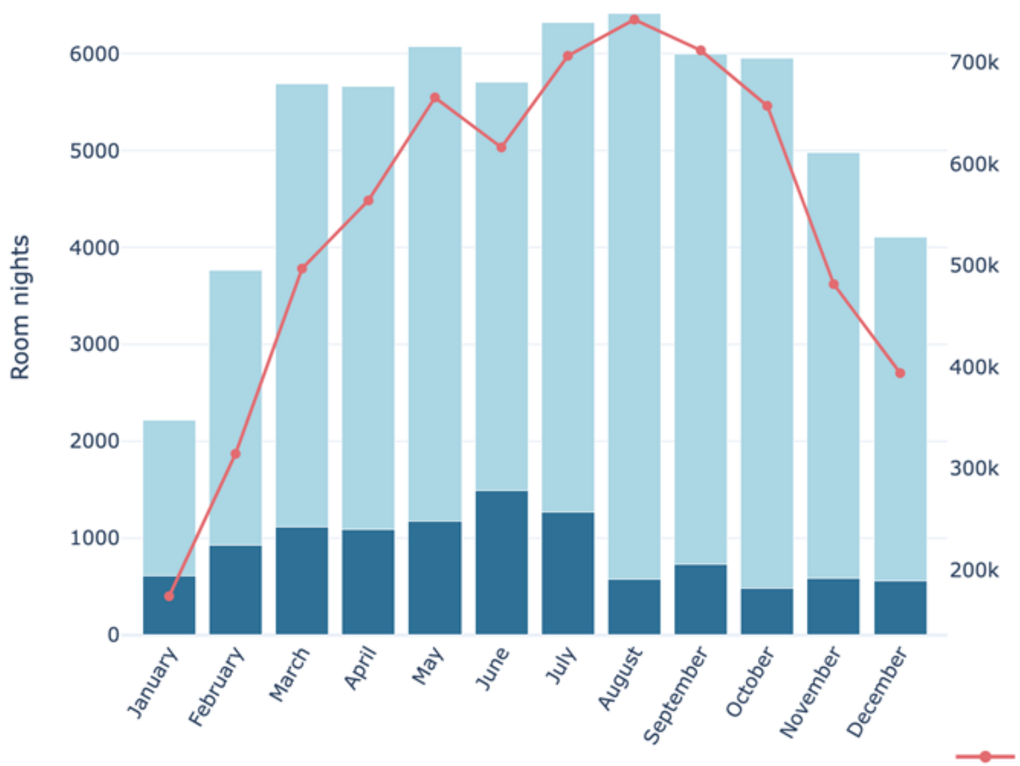
## RESORT HOTEL




ALOS goes up from 3 days in winter to 5-6 days in summer.

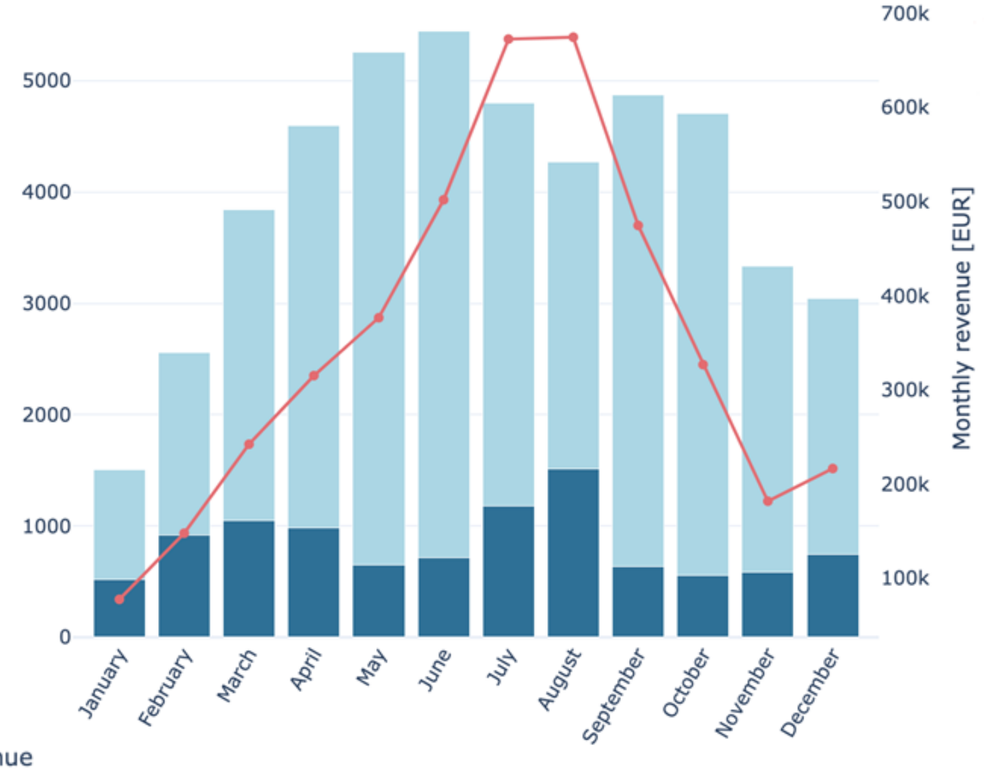
# Room nights sold & revenue are better indicators

## CITY HOTEL



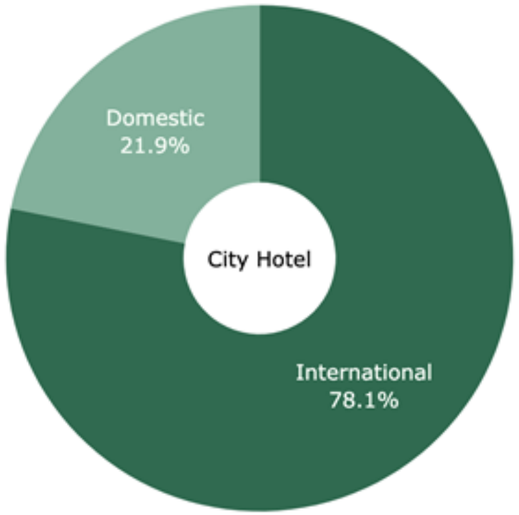

June to August - 32% annual revenue

## RESORT HOTEL



June to August - 44% annual revenue

# What are the feeder markets?




**City Hotel received guests from 122 countries.**

Top regions:

1. Western Europe - 50%
2. Northern Europe - 16%
3. Southern Europe - 16%
4. Latin America - 4%

**Resort Hotel received guests from 91 countries.**

Top regions:

1. Northern Europe - 47%
2. Western Europe - 22%
3. Southern Europe - 17%
4. Eastern Asia - 4%

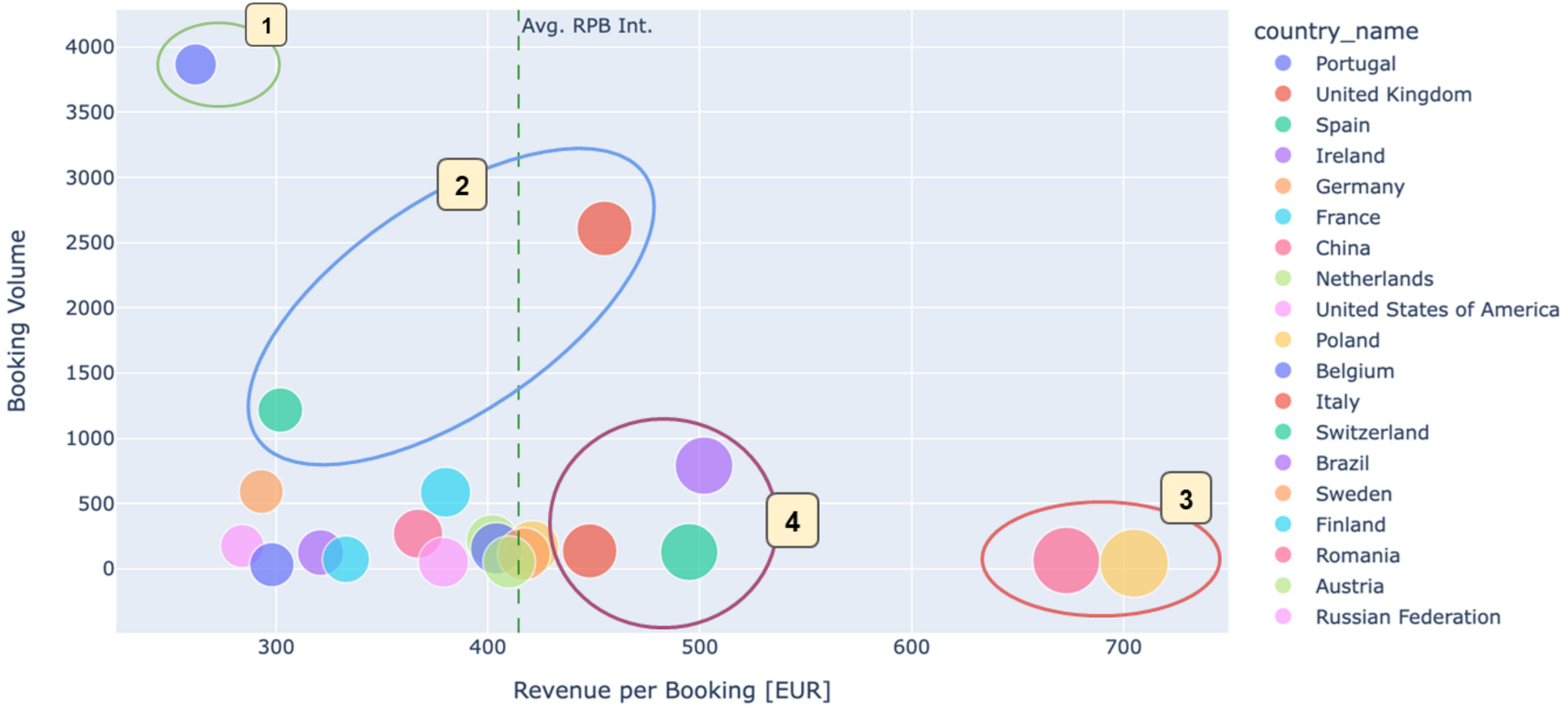
# Feeder Markets - City Hotel

**1** Local market - PT

**2** Freq. bookers - FR, DE, UK, ES, IT

**3** High spenders - DK, NO, FI, SE

# Feeder Markets - Resort Hotel




1 Local market - PT

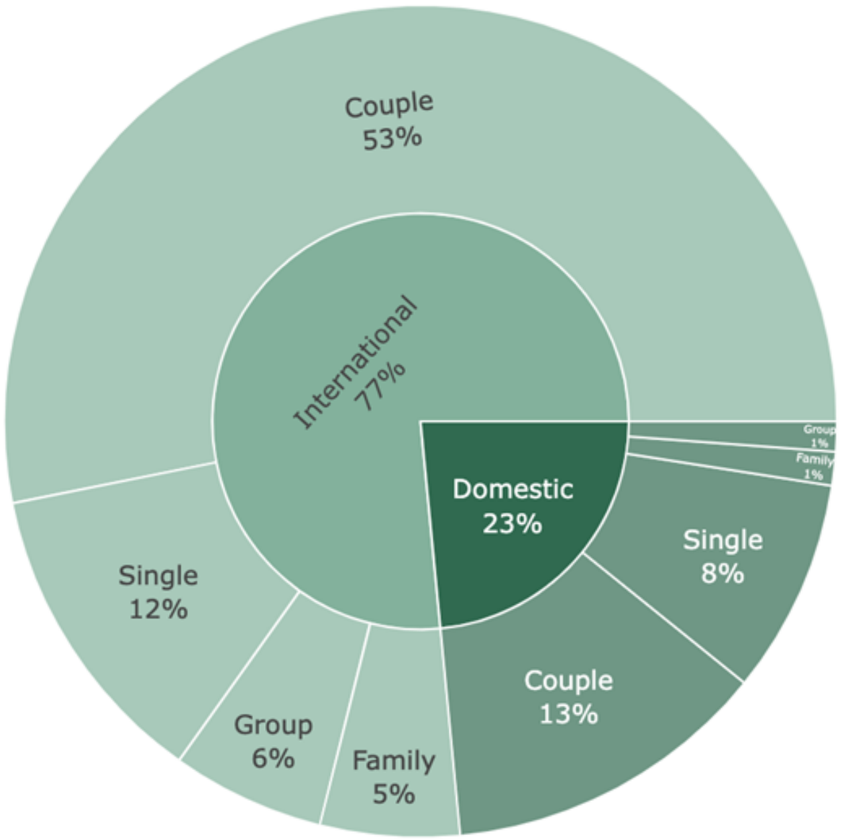
2 Freq. bookers - UK, ES

3 High spenders - NO, RO

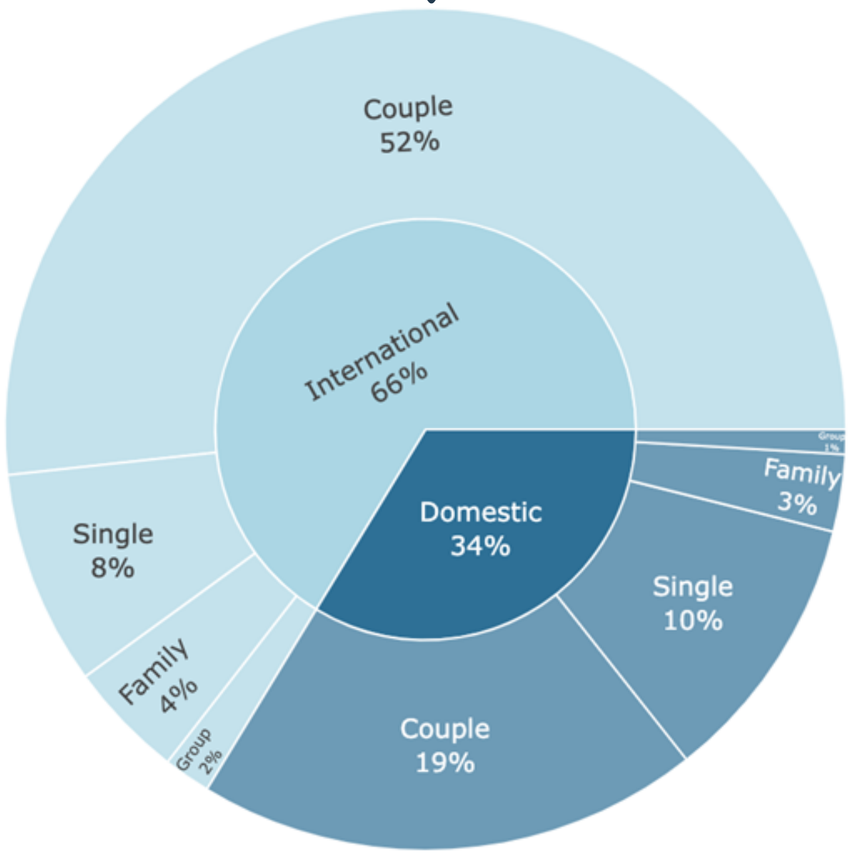
4 Mid. range - IE, CH, IT

# What is the most frequent guest type?

- 53% of annual bookings
- 57% of annual revenue




- 52% of annual bookings
- 60 % of annual revenue



# International couples - more characteristics

## CITY:

- Stay on avg. 3 days
- Book approx. 3 months ahead
- Travel in May and October
- Spend 325€ on their booking
- From France, Germany & UK
- BB meal plan
- Book by OTA

## RESORT:

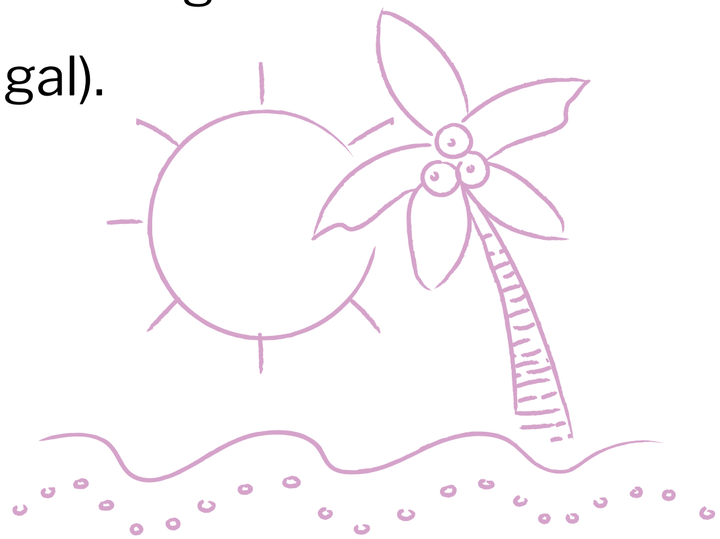
- Stay on avg. 5 days
- Book approx. 3.5 months ahead
- Travel in August and September
- Spend 410€ on their booking
- From UK, Spain & Ireland
- BB meal plan
- Book by OTA

# To wrap up:
# final observations

- Seasonality varies per hotel type + the importance of taking into account different metrics to evaluate high performing months.

- Slightly different international feeder markets + the high booking volume doesn´t always translate into high revenue (Portugal).

- Top performing customer groups identified.



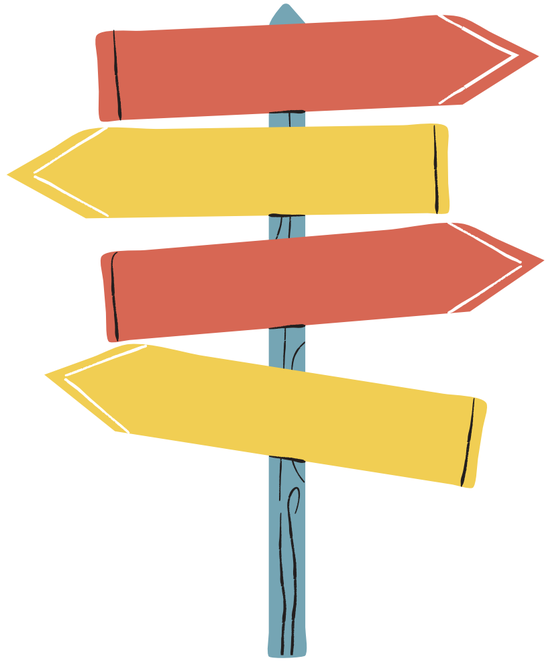
# To wrap up:
# Possible action points

## WHAT´S NEXT?

➔ Based on seasonality and feeder markets we can plan the annual budget distribution for marketing campaigns and decide the market targeting

➔ For couples - develop direct booking offer to drive them away from the OTAs (and avoid commissions)

➔ For other guest types, investigate their characteristics to drive more visits & diversify customer base



# Thank you for your attention