Strategic Performance Report: Splendor Hotel Group.

HOW DATA INSIGHTS CAN DRIVE GROWTH AND GUEST
SATISFACTION AT SPLENDOR HOTEL GROUP
BLESSING SALAMI

SPLENDOR HOTEL GROUPS

Executive Summary.

This report provides a comprehensive analysis of the Splendor Hotel Group's (SHG) booking data. By examining patterns in customer behavior, revenue streams, and operational metrics, this document outlines key findings and delivers actionable recommendations to enhance profitability, optimize occupancy, and improve guest satisfaction. Each finding is supported by a placeholder for a relevant data visualization.

Data and Methodology.

The analysis is based on a historical booking dataset from the Splendor Hotel Group, covering its "Resort" and "City" hotel properties1. The dataset contains 119,390 booking records with 17 attributes, including booking details, guest information, channel data, and financial metrics.

Methodology: Data Processing and Analysis

A systematic data cleaning and preparation process was executed to ensure analytical integrity. Key steps included:

- **Data Type Conversion**: Converted Booking Date, Arrival Date, and Status Update to a proper datetime format. I also changed some column to category data types.

- **Handling Missing Values**: Replaced missing Country data with "Unknown".

- **Feature Engineering**: Created new columns for Booking_Month and Booking_Month_Year to give more insight to the booking trend. Change the column "Cancelled (0/1)" to "Cancelled".

- **Data Cleansing**: Removed illogical records, such as bookings with zero guests or zero nights (because of there is no day use of the hotel).

The analysis utilized descriptive statistics and data visualizations to uncover trends, correlations, and segment-specific behaviors.
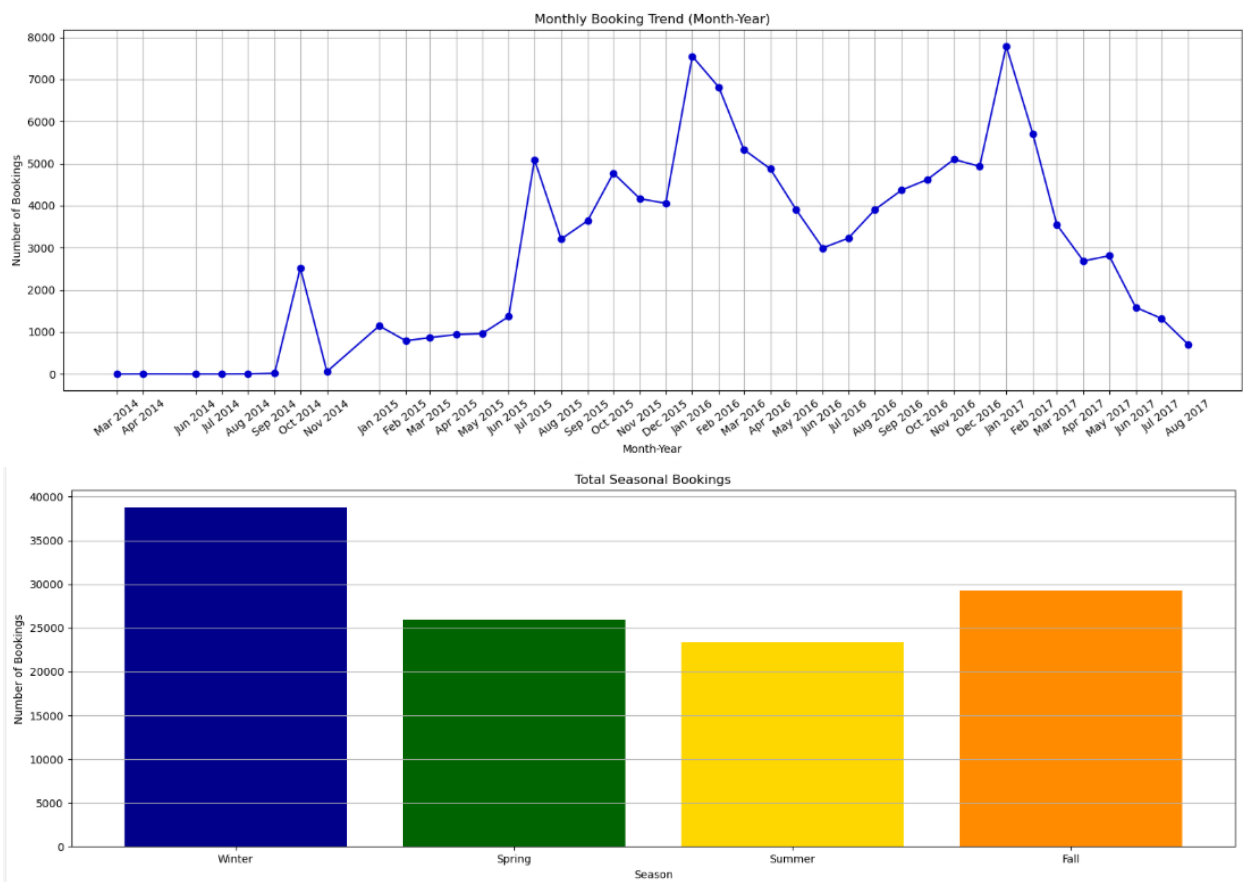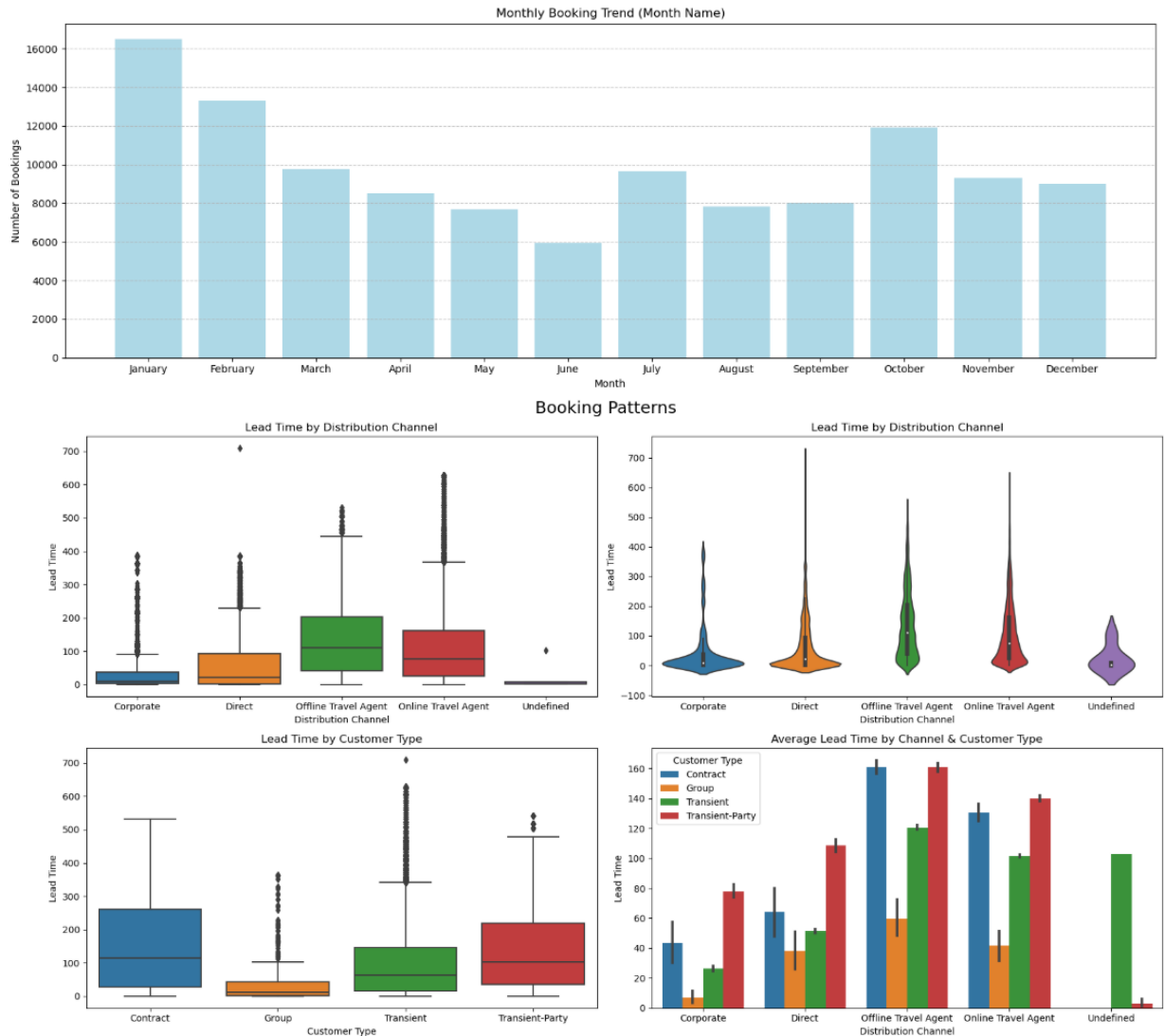
Key Findings and Visual Insights.

This section synthesizes the core findings from the analysis, pairing each insight with a placeholder for a visual chart and translating them into strategic recommendations.

1. **Booking Patterns & Seasonality**
   - **Finding**: Bookings surged from late 2014, peaking several times between 2015 and early 2017 especially in late 2015, late 2016, and early 2017, with monthly bookings nearing or surpassing 7,500. After early 2017, a steady decline followed. Winter remains the busiest season, particularly January, February, and October, while Spring and Summer lag behind, with May and June being the slowest months. Corporate and direct bookings have the shortest lead times, whereas OTA and offline channels book much further ahead. Contract customers plan earliest, while group and corporate bookings are made closer to arrival.

Booking Trends Overview

Monthly Booking Trend (Month Name)

Booking Patterns

Lead Time by Distribution Channel

Lead Time by Customer Type

Average Lead Time by Channel & Customer Type
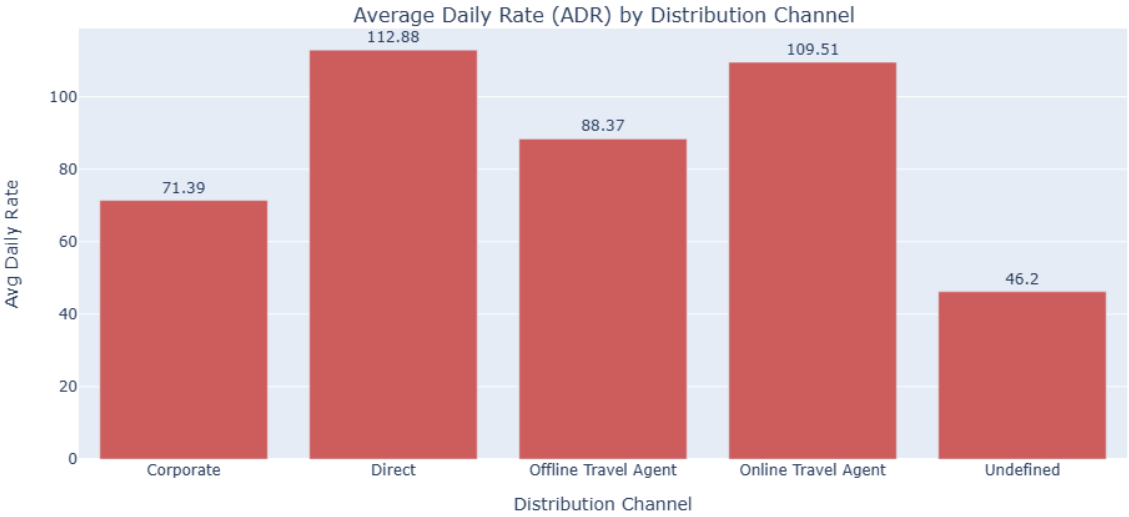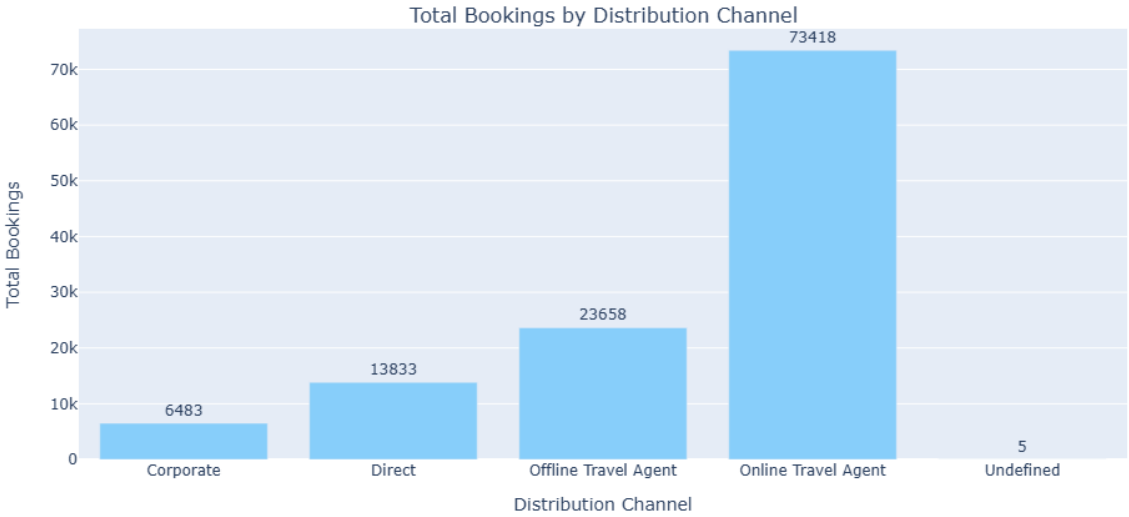
- **Actionable Insight**:
    1. Focus marketing efforts and implement dynamic pricing during Winter and October to maximize revenue from naturally high demand.
    2. Develop compelling promotions, discounts, and value-added packages to drive bookings during the summer slump.
    3. Tailor communications and offers by customer and channel type: E.g., Send advanced early-bird offers to contract/channel agent clients, while using short-notice deals for corporate clients.

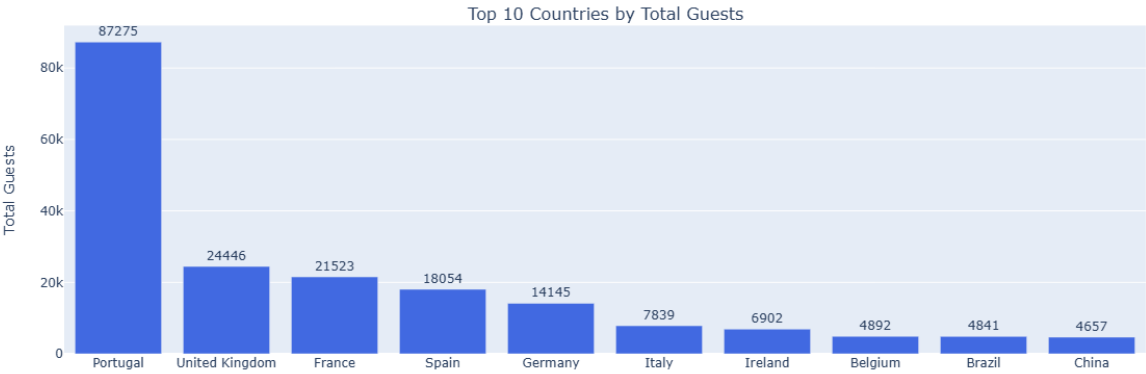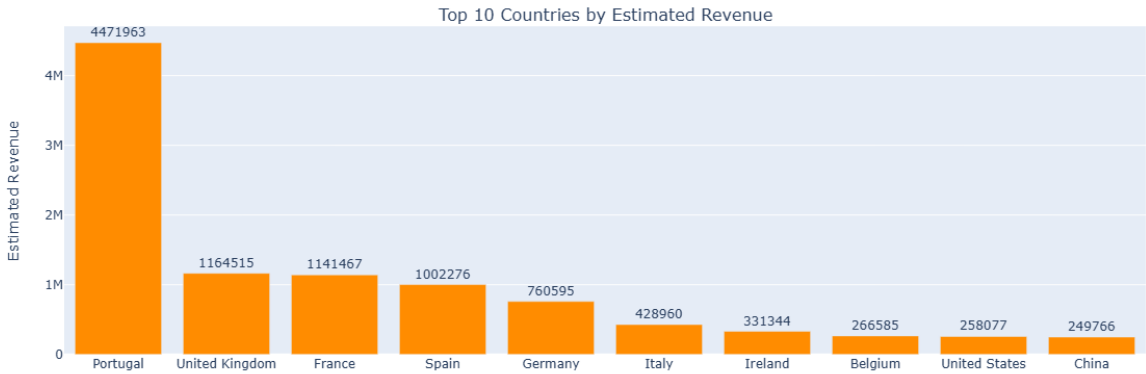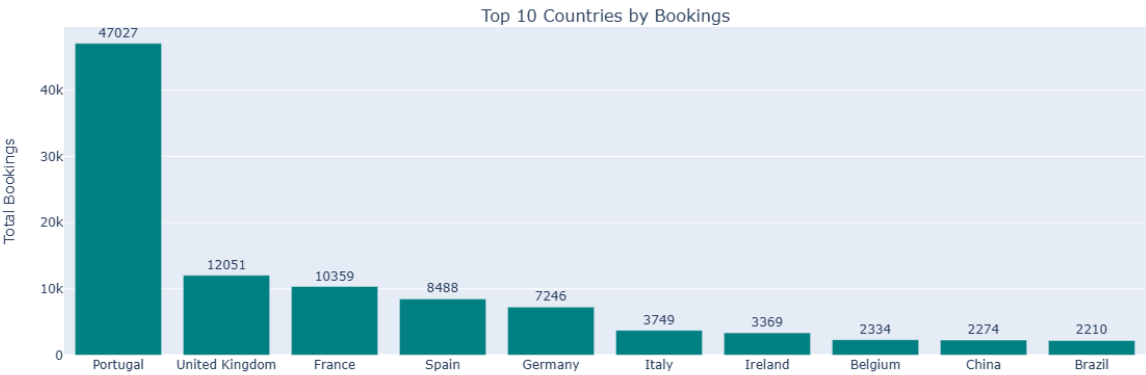2. **Distribution Channel Performance**
    - **Finding**: Online Travel Agents (OTAs) drive most bookings, while both OTAs and direct channels bring in the highest revenue per night. Corporate and offline agent bookings are less profitable by comparison. Portugal dominates in every category (bookings, revenue, and guest volume) highlighting the strength of the

domestic market. The United Kingdom, France, and Spain follow closely, contributing over 30,000 bookings combined. Although China and Brazil have fewer bookings, they consistently appear among the top guest origins, pointing to growth potential. Countries like the UK, which combine high ADR with strong guest counts, are ideal targets for premium promotions and seasonal marketing efforts.

Customer Behaviour Analysis

Total Bookings by Distribution Channel

	Corporate	Direct	Offline Travel Agent	Online Travel Agent	Undefined
Total Bookings	6483	13833	23658	73418	5

Average Daily Rate (ADR) by Distribution Channel

	Corporate	Direct	Offline Travel Agent	Online Travel Agent	Undefined
Avg Daily Rate	71.39	112.88	88.37	109.51	46.2

Guest Distribution and Revenue Impact by Country

Top 10 Countries by Bookings

Country	Total Bookings
Portugal	47027
United Kingdom	12051
France	10359
Spain	8488
Germany	7246
Italy	3749
Ireland	3369
Belgium	2334
China	2274
Brazil	2210

Top 10 Countries by Estimated Revenue

Country	Estimated Revenue
Portugal	4471963
United Kingdom	1164515
France	1141467
Spain	1002276
Germany	760595
Italy	428960
Ireland	331344
Belgium	266585
United States	258077
China	249766

Top 10 Countries by Total Guests

Country	Total Guests
Portugal	87275
United Kingdom	24446
France	21523
Spain	18054
Germany	14145
Italy	7839
Ireland	6902
Belgium	4892
Brazil	4841
China	4657

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- **Actionable Insight**:
  1. Strengthen direct booking channels with exclusive offers to capture high-ADR customers and reduce commission costs, while continuing to leverage OTAs for their wide reach.
  2. It is advisable to re-evaluate contracts with corporate clients and offline agents to identify opportunities for rate adjustments or upselling value-added services.
  3. Amplify partnerships and investments in online agent channels, while incentivizing direct bookings for profitability.
  4. Continuously monitor channel ADRs to optimize pricing and contract conditions.
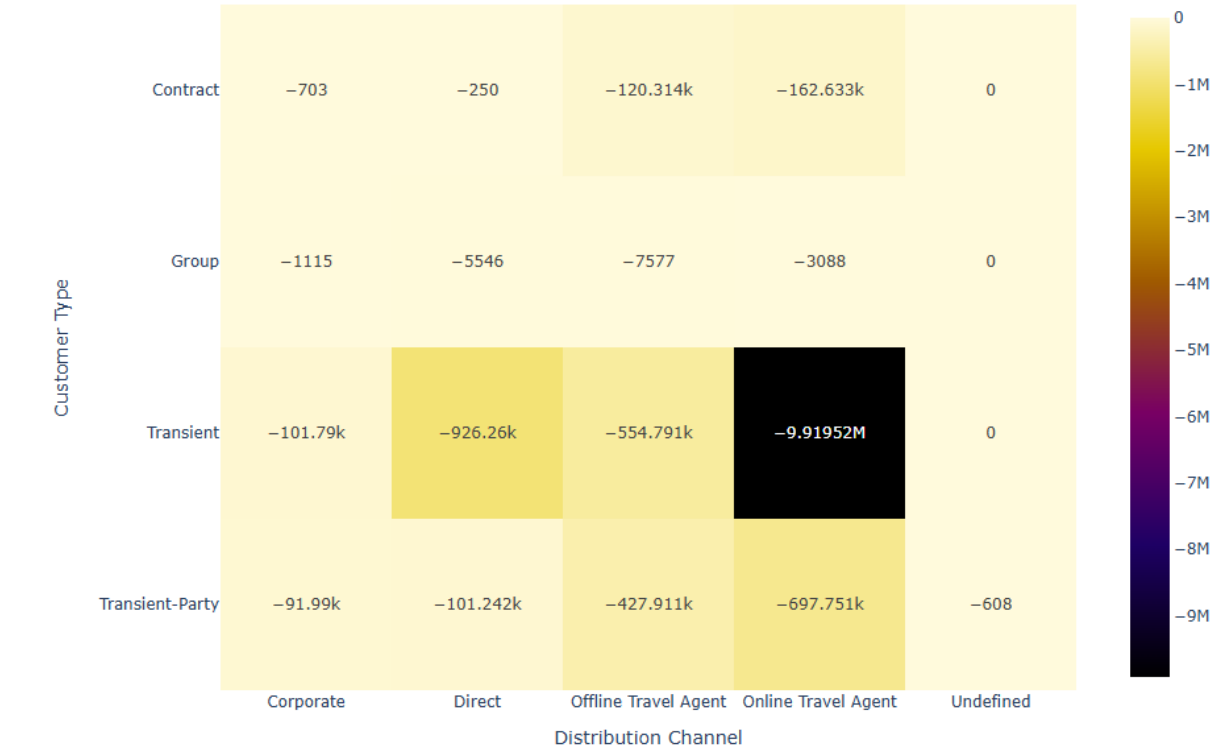
3. **Cancellation Behavior**
   - **Finding**: Lead time is a key driver of cancellations-bookings made far in advance are much more likely to be canceled. Those with a "No Deposit" policy see the highest cancellation rate, around 30%. The biggest financial hit comes from

Transient customers booking through OTAs, accounting for nearly $9.92 million in lost revenue. Direct and Offline bookings from this same segment add to the losses, though to a lesser extent. Transient-Party bookings via OTAs also contribute significantly. In contrast, cancellations from Contract and Group customers result in minimal revenue loss, making them more stable and predictable segments.
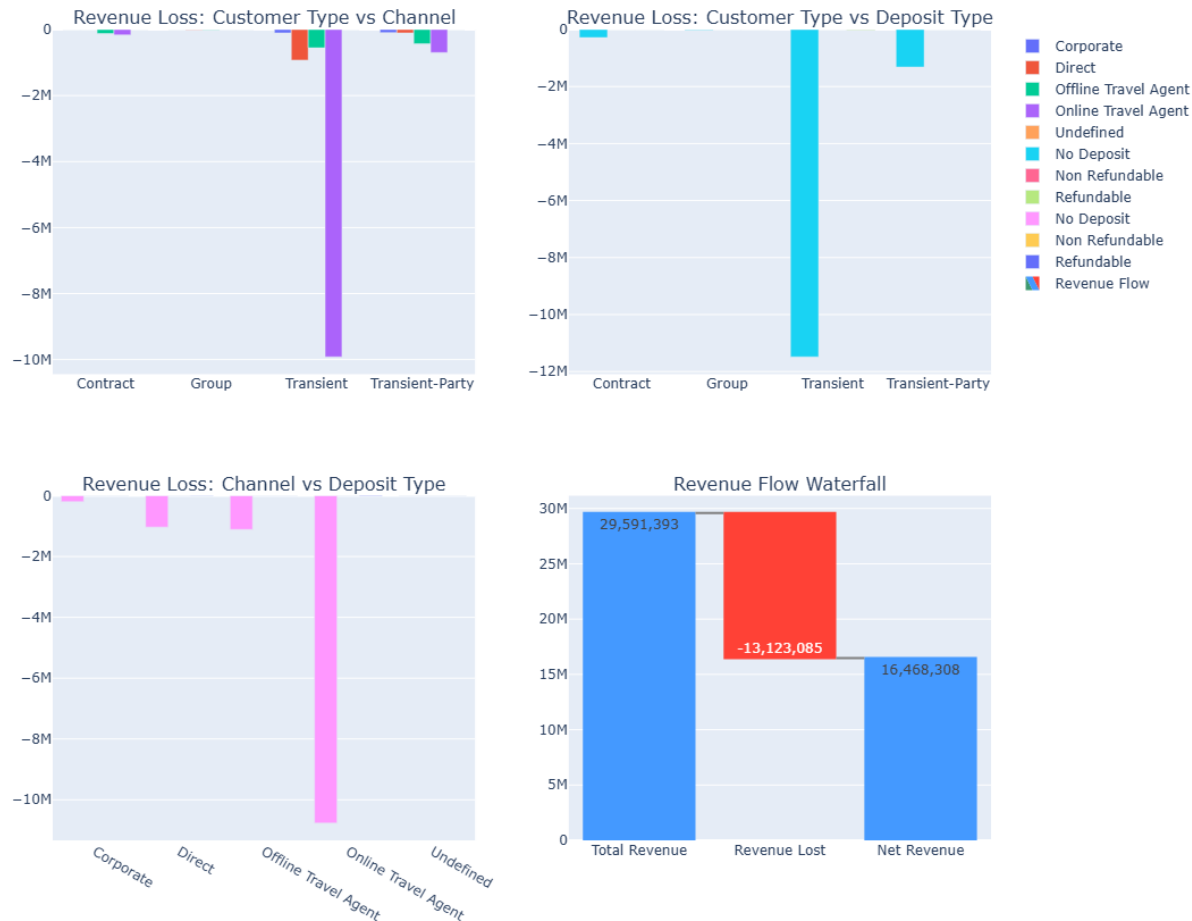
Correlation Heatmap (with Temporary Cancelled_num)
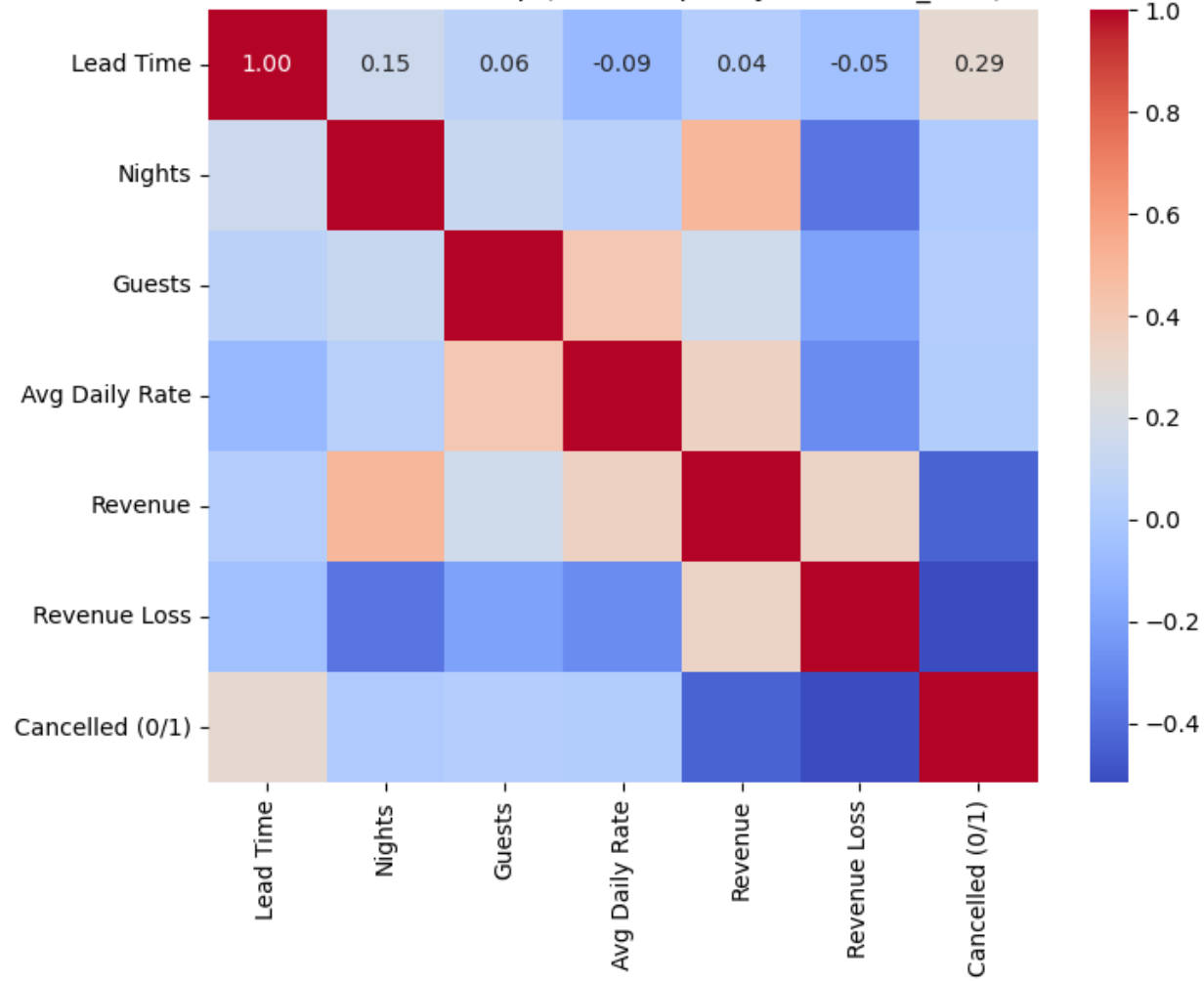
Revenue Loss Heatmap by Customer Type and Channel

	Corporate	Direct	Offline Travel Agent	Online Travel Agent	Undefined
Contract	−703	−250	−120.314k	−162.633k	0
Group	−1115	−5546	−7577	−3088	0
Transient	−101.79k	−926.26k	−554.791k	−9.91952M	0
Transient-Party	−91.99k	−101.242k	−427.911k	−697.751k	−608

Customer Type

Distribution Channel

Revenue Loss Analysis Due to Booking Cancellations

- **Actionable Insight**:
  1. Negotiate with Online Travel Agents for stricter policies or prepayment options for the Transient segment.
  2. Develop a system to flag high-risk bookings based on lead time and channel, allowing for proactive engagement to secure the reservation.
  3. Calibrate overbooking levels based on historical cancellation data for specific segments to maximize occupancy without compromising service.
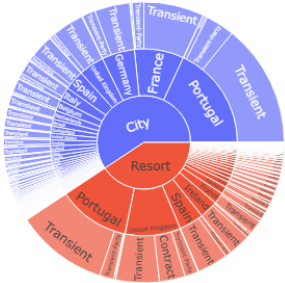
4. **Revenue and Guest Segmentation**
   - **Finding:** The Transient segment is the top revenue driver by a wide margin, with most income concentrated in Portugal, the UK, France, and Spain—together contributing over half of total revenue. City hotels tend to outperform resort properties in revenue, even within the same regions. In terms of pricing, Contract

bookings have the lowest ADR, while Group bookings show slightly higher rates with more fluctuation. Transient and Transient-Party segments have wide ADR ranges due to demand-based pricing, with Transient-Party slightly higher on average. Direct bookings yield the highest ADR, while OTAs offer competitive but varied rates. Offline agents and Corporate channels show lower ADRs, mostly due to negotiated or fixed pricing.
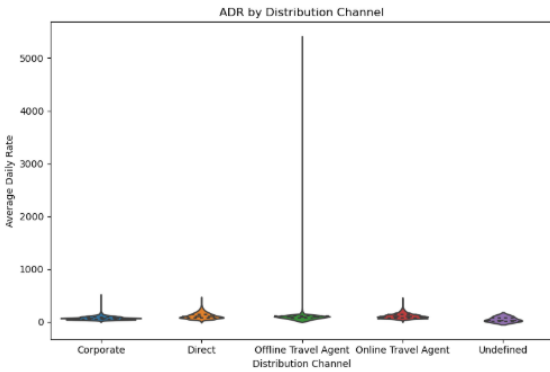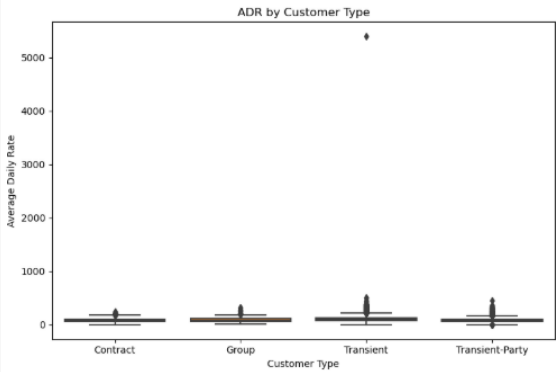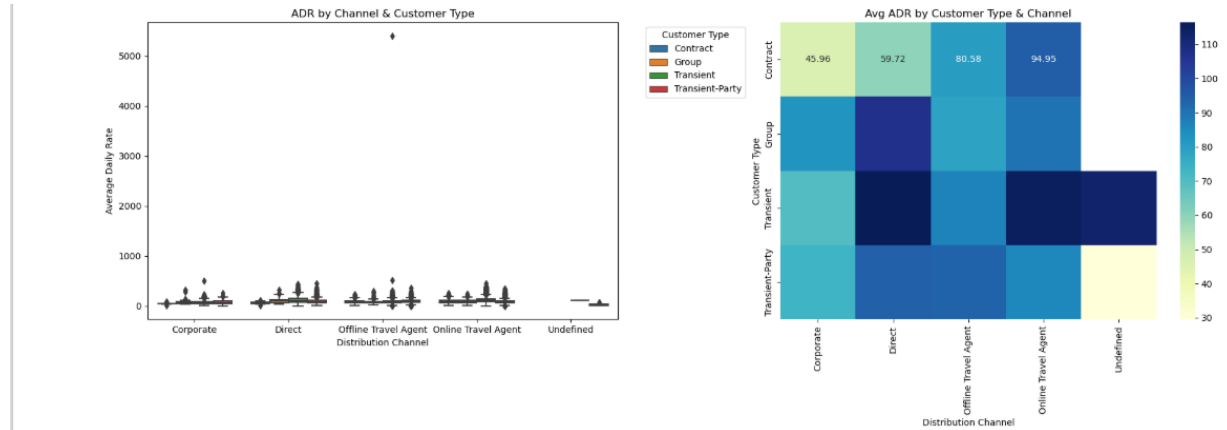
Revenue Analysis Dashboard

Overall Revenue Trend Over Time

Revenue Trend by Customer Segment (Stacked)

Legend:
- Cumulative %
- Revenue
- Transient-Party
- Transient
- Group
- Contract
- Monthly Revenue

Top 10 Countries by Revenue (Pareto Chart)

Countries: Portugal (9034689), United Kingdom (4150678), France (3100397), Spain (2281219), Germany (2068388), Ireland (1240027), Italy (866475), Belgium (764523), Netherlands (631661), Switzerland (547839)

Hierarchical Revenue Contribution

ADR Distribution Analysis

ADR by Customer Type

Customer Type: Contract, Group, Transient, Transient-Party
Average Daily Rate

ADR by Distribution Channel

Distribution Channel: Corporate, Direct, Offline Travel Agent, Online Travel Agent, Undefined
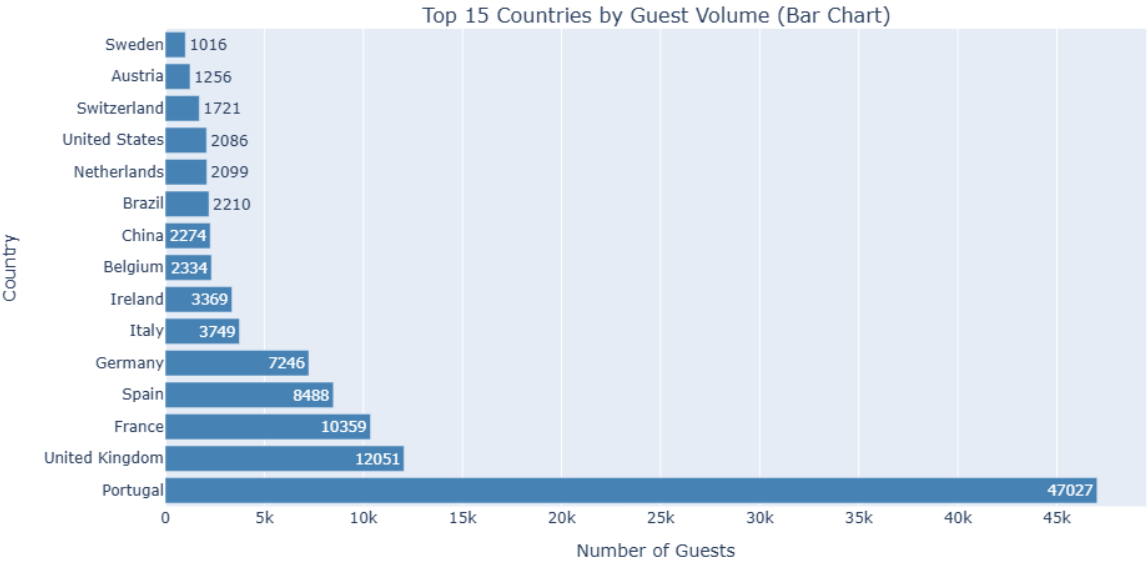Average Daily Rate

- **Actionable Insight**:
    1. Deepen marketing efforts in top-performing European countries with localized campaigns and promotions.
    2. Explore and nurture emerging markets like China and Brazil, which show potential for growth**.**
    3. Use dynamic pricing to maximize revenue from the high-volume Transient segment, especially for direct bookings where ADR is highest.
    4. Maintain flexible yet robust cancellation policies for primary source countries, since their cancellation rates are not excessive but their booking volumes are critical.
    5. Extend loyalty programs or incentives to major guest origin markets to increase direct booking share and reduce dependency on third-party channels.
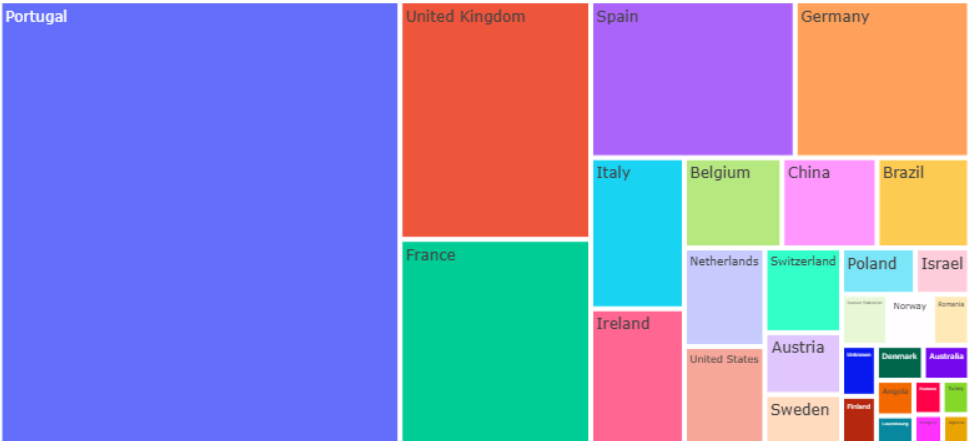
5. **Geographical Analysis**
    - **Findings:** Portugal leads as the top guest source with 47,027 bookings, followed by the UK, France, Spain, and Germany. Most revenue comes from these high-volume countries, highlighting a strong link between guest count and income. Western and Southern Europe dominate the map, with some inflow from the US, China, and Brazil. Cancellation rates are higher in countries with very few bookings, like small islands, but these are not strategically important. Major countries show moderate, stable cancellation patterns. Guests from distant countries like the US and China tend to stay longer, while Europeans stay for shorter periods. Longer stays do not necessarily mean higher cancellation rates**.**
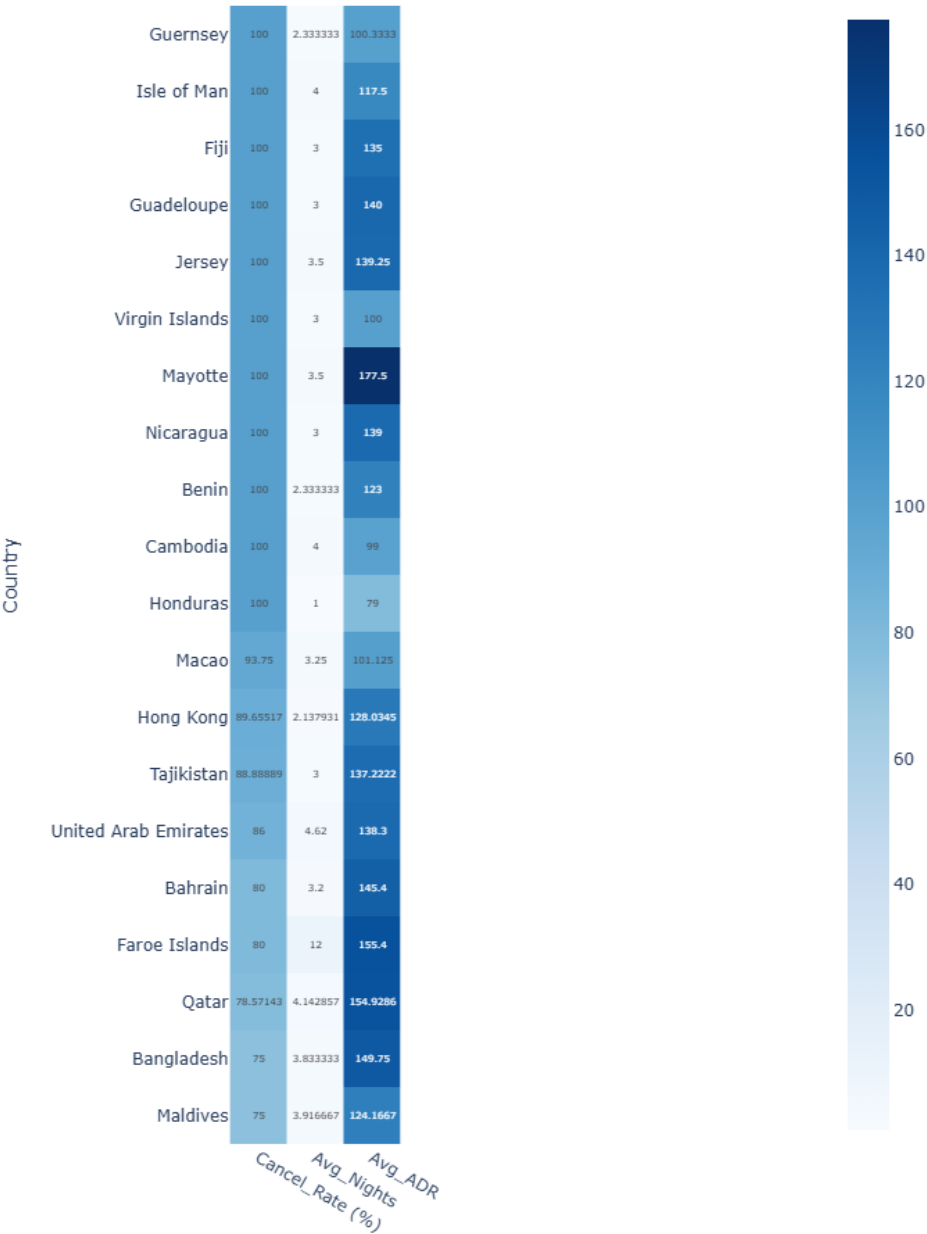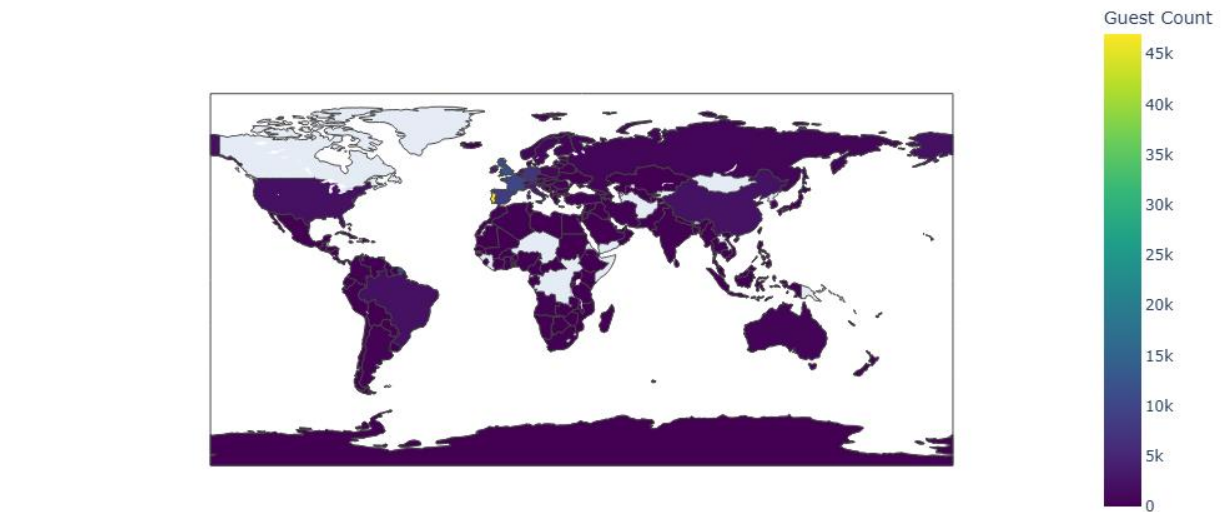
Guest Volume Analysis by Country

Top 15 Countries by Guest Volume (Bar Chart)

Country	Number of Guests
Sweden	1016
Austria	1256
Switzerland	1721
United States	2086
Netherlands	2099
Brazil	2210
China	2274
Belgium	2334
Ireland	3369
Italy	3749
Germany	7246
Spain	8488
France	10359
United Kingdom	12051
Portugal	47027

Guest Volume Distribution (Top 30 Countries - Treemap)

Top 20 Countries by Cancellation Rate and Related Metrics

Country	Cancel_Rate (%)	Avg_Nights	Avg_ADR
Guernsey	100	2.333333	100.3333
Isle of Man	100	4	117.5
Fiji	100	3	135
Guadeloupe	100	3	140
Jersey	100	3.5	139.25
Virgin Islands	100	3	100
Mayotte	100	3.5	177.5
Nicaragua	100	3	139
Benin	100	2.333333	123
Cambodia	100	4	99
Honduras	100	1	79
Macao	93.75	3.25	101.125
Hong Kong	89.65517	2.137931	128.0345
Tajikistan	88.88889	3	137.2222
United Arab Emirates	86	4.62	138.3
Bahrain	80	3.2	145.4
Faroe Islands	80	12	155.4
Qatar	78.57143	4.142857	154.9286
Bangladesh	75	3.833333	149.75
Maldives	75	3.916667	124.1667

Global Guest Distribution by Country

Country-Level Insights: Cancellation, Nights, Revenue, and Guest Volume
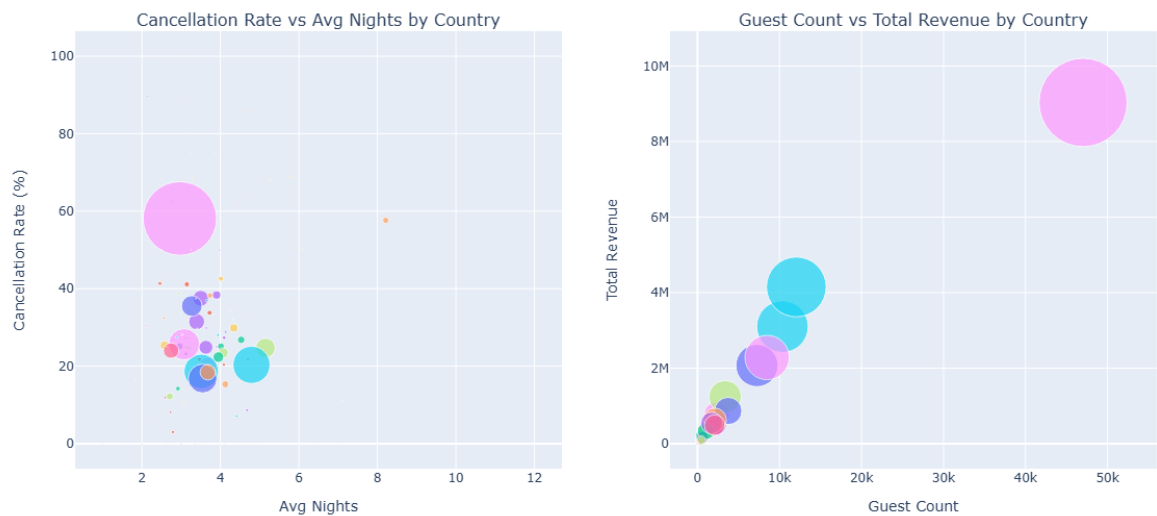
- **Actionable Insight**:
    1. Portugal, UK, France, Spain, Germany should remain core marketing targets given their major contribution to bookings and revenue.
    2. Under-penetrated nearby countries (e.g., Switzerland, Netherlands, Austria) may offer expansion opportunities with modest investment.
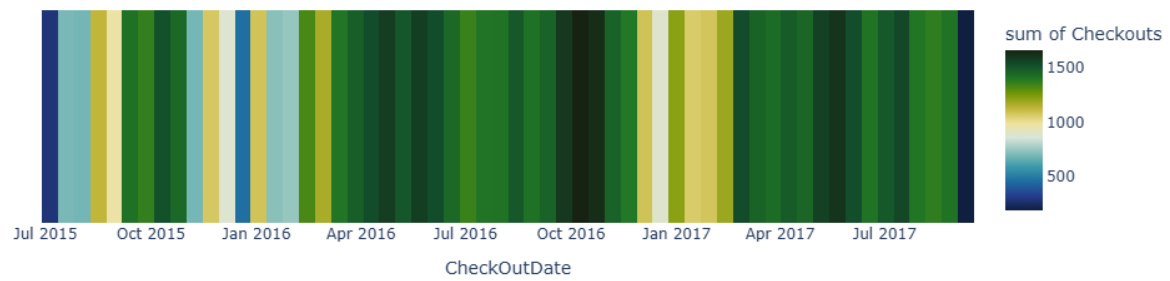
3. Leverage longer stays from intercontinental guests by offering attractive long-stay packages and reducing cancellation incentives for these visitor segments.
4. Extend loyalty programs or incentives to major guest origin markets to increase direct booking share and reduce dependency on third-party channels.

6. **Operational Efficiency**
    - **Finding**: Guest check-outs peak on Sundays, Thursdays, and Fridays, with Sunday seeing over 13.5k check-outs. Tuesdays are the quietest. Corporate and Contract customers stay the longest, averaging around 6 and 8 nights, especially when booked through Corporate or Agent channels. In contrast, Transient and Transient-Party guests typically stay for shorter durations. Bookings made via Direct, Offline, or Online Travel Agent channels averaging 3 to 4 nights, showing little difference. The pattern suggests guests favor weekend or extended weekend stays, with check-out volumes rising at the end of and around weekends.
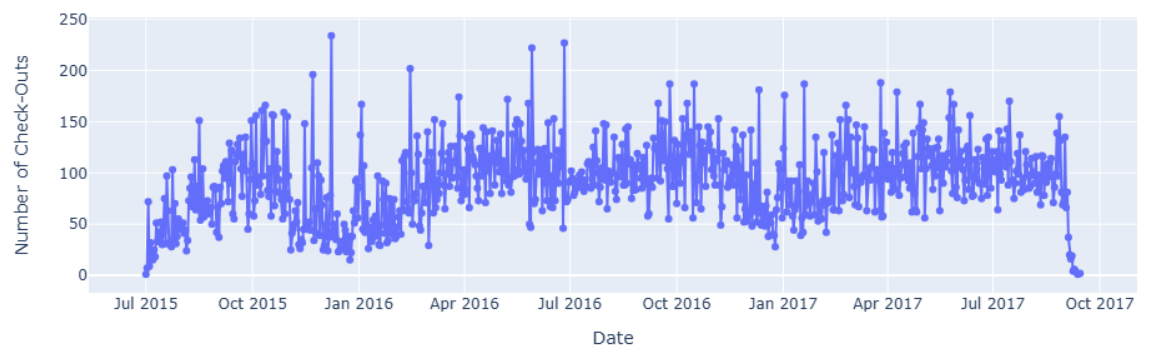
Stay Duration by Booking Channel

Stay Duration by Customer Type

Stay Distribution (Violin) by Customer Type

Average Stay by Customer Type & Channel
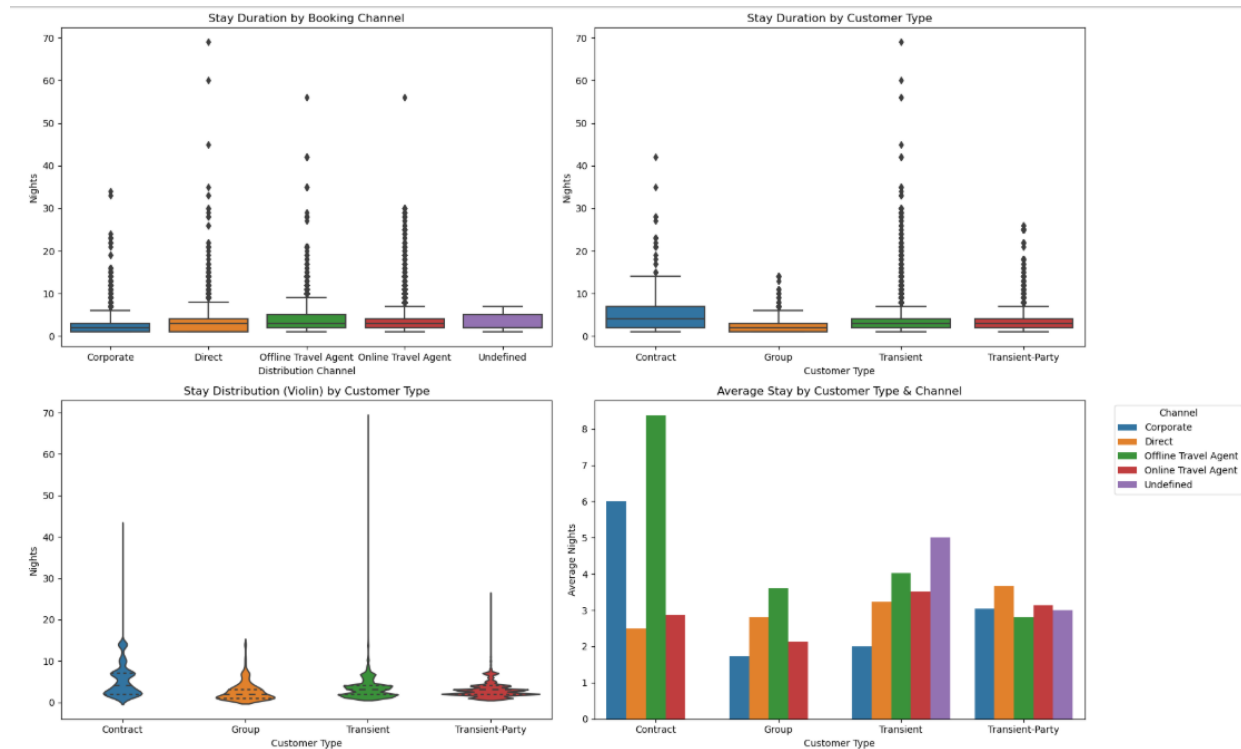
Daily Check-Out Volume (Calendar Heatmap)

sum of Checkouts

CheckOutDate

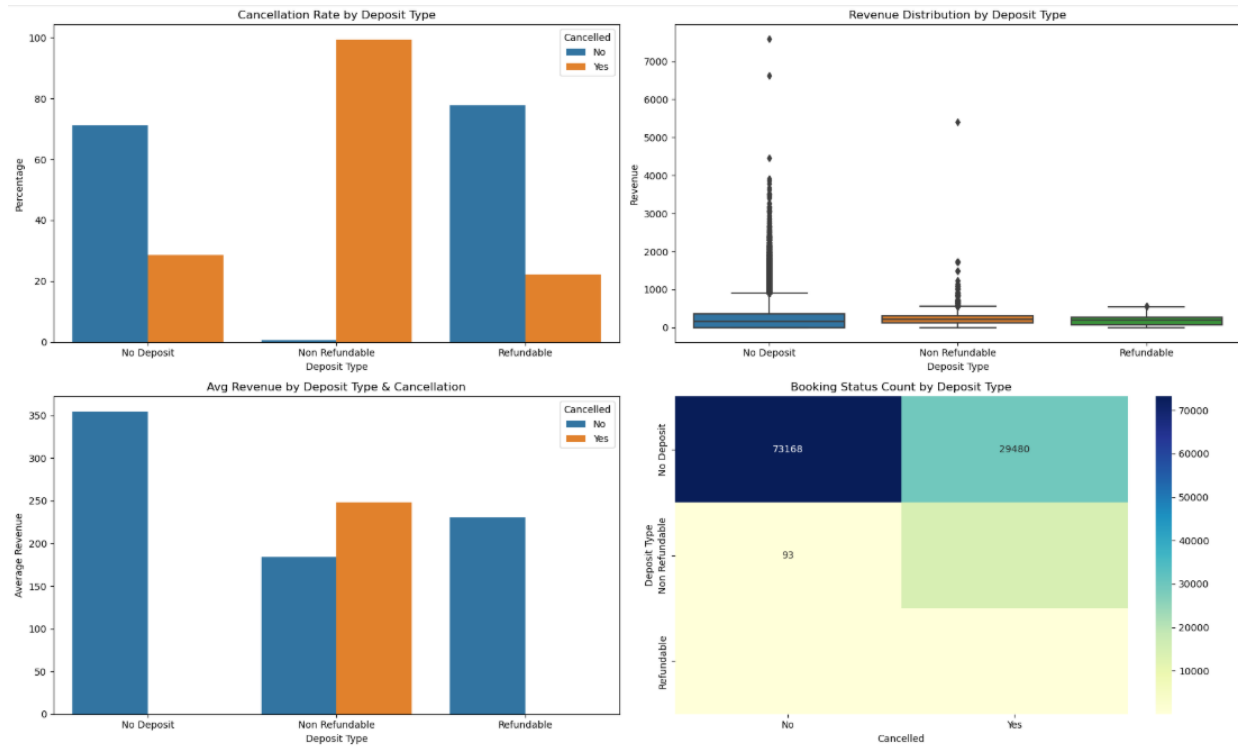## Check-Outs by Day of the Week
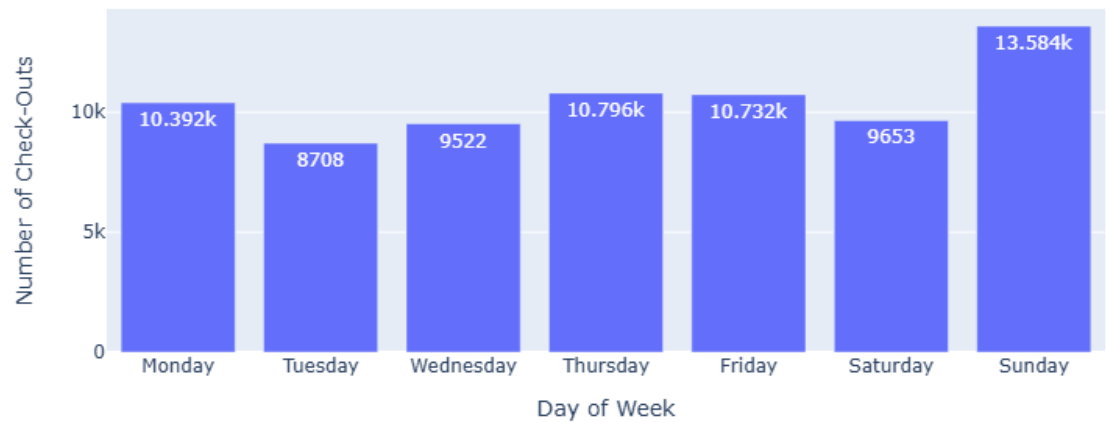
Check-Out Trends Over Time

- **Actionable Insight**:
  1. Align housekeeping and front-desk staff schedules with peak check-out days to ensure smooth guest turnover and maintain service quality, while reducing staffing on quieter days.
  2. Promote and prioritize long-stay segments like corporate and contract clients through loyalty programs and value-added services to enhance occupancy stability.
  3. Implement express check-out options to manage high-volume departure days more effectively and improve the guest experience.

7. **Deposit Types Impact Analysis**
   - **Findings:** Refundable deposits are rarely used, especially by Contract and Group segments, who mostly prefer no-deposit policies due to pre-arranged agreements.

Transient and Transient-Party bookings dominate all deposit types, with non-refundable deposits more common for last-minute or deal-based reservations. No-deposit bookings, while generating the highest average revenue when honored, have a 30% cancellation rate. Non-refundable bookings show an unusual 100% cancellation rate, as they often reflect "no shows" that still retain revenue. Refundable deposits have the lowest cancellation rate at 21%, offering a balance of guest flexibility and reduced speculative booking. Overall, non-refundable deposits protect revenue, but no-deposit types dominate volume despite higher risks.

Cancellation Rate by Deposit Type

Revenue Distribution by Deposit Type

Avg Revenue by Deposit Type & Cancellation

Booking Status Count by Deposit Type

Distribution of Deposit Types Across Customer Segments
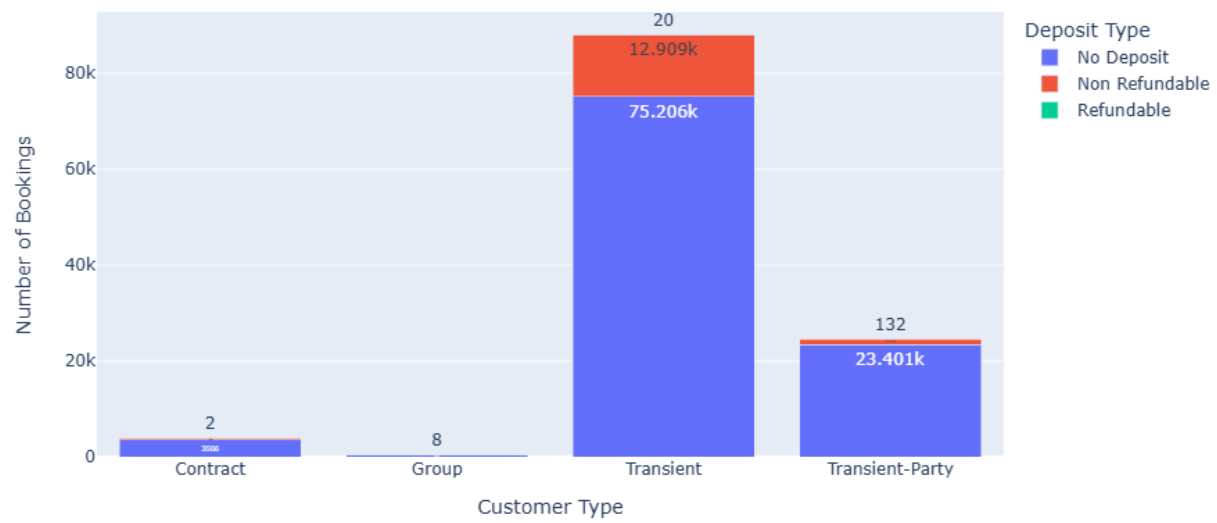
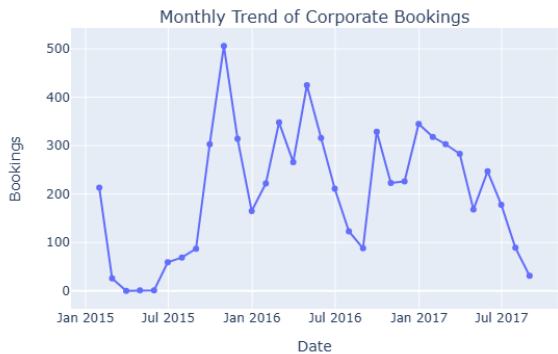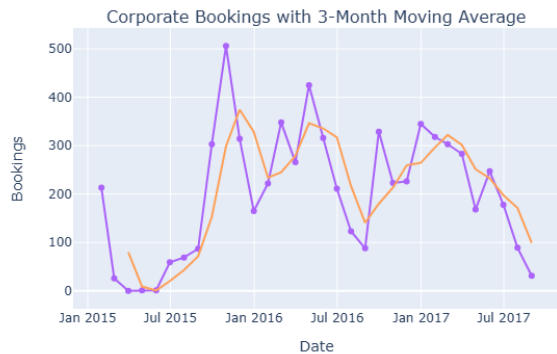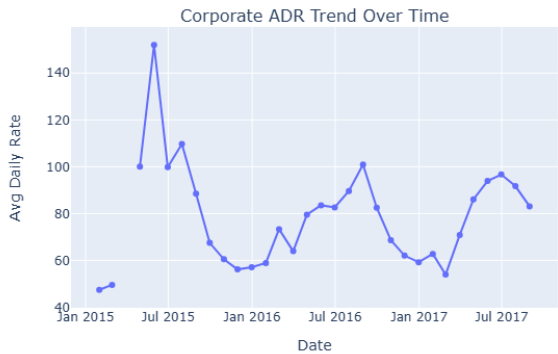Heatmap: Deposit Type Usage Across Customer Segments

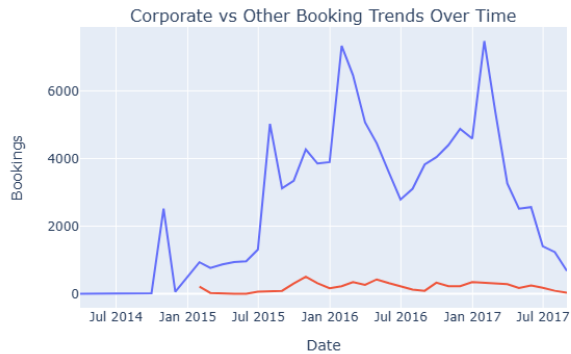| Customer Type	No Deposit	Non Refundable	Refundable
Contract	3506	544	2
Group	535	0	8
Transient	75.206k	12.909k	20
Transient-Party	23.401k	1134	132

- **Actionable Insights:**
    1. Use historical insights to inform overbooking strategies-apply higher thresholds where no deposit is required and cancellation risk is elevated.
    2. Work with Contract and Group clients to encourage either a switch to low refundable deposits or enforce stricter cancellation terms, especially for large block bookings during high-occupancy seasons.
    3. Incentivize refundable deposits for high-value transient and transient-party guests to reduce cancellations yet remain competitive versus strict non-refundable deals.
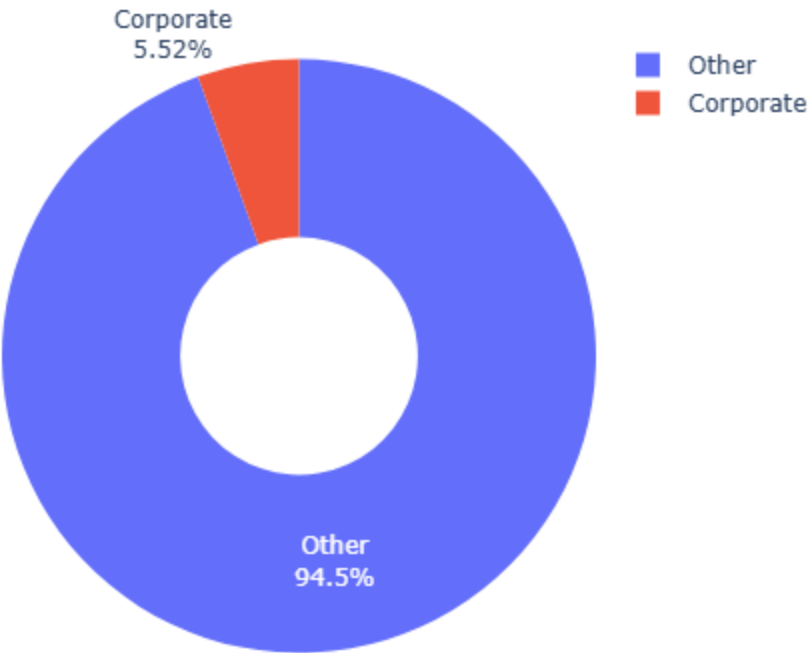
8. **Corporate Bookings Analysis**
    - **Findings:** Corporate bookings make up just 5.5% of total reservations at Splendor Hotel Group, with the rest coming from other customer types. They consistently show lower Average Daily Rates (ADR) compared to other segments, reflecting stable, negotiated pricing. While corporate bookings contribute steady weekday occupancy and help fill last-minute gaps due to shorter lead times, their overall revenue impact is limited by both volume and ADR. The segment shows minimal seasonal fluctuation and steady, modest growth over time. Visualizations reveal

narrower ADR distributions and lower outliers, reinforcing their predictable pricing structure and smaller role in the broader booking landscape.

Corporate Booking Trends Dashboard

Corporate vs Other Booking Trends Over Time

Corporate ADR Trend Over Time

Corporate Bookings with 3-Month Moving Average

Monthly Trend of Corporate Bookings

Proportion of Corporate vs Other Bookings

Corporate
5.52%

Other
94.5%

Other

Corporate

ADR Distribution: Corporate vs Other Channels
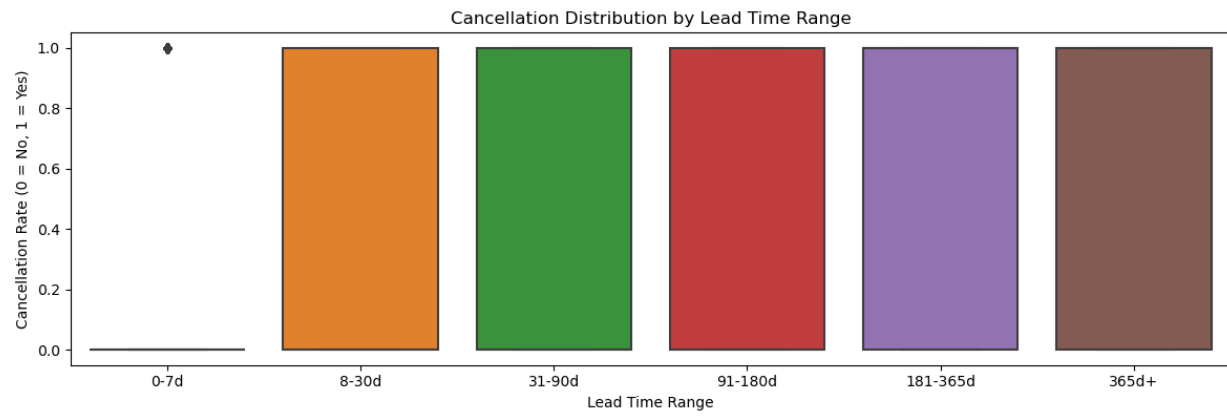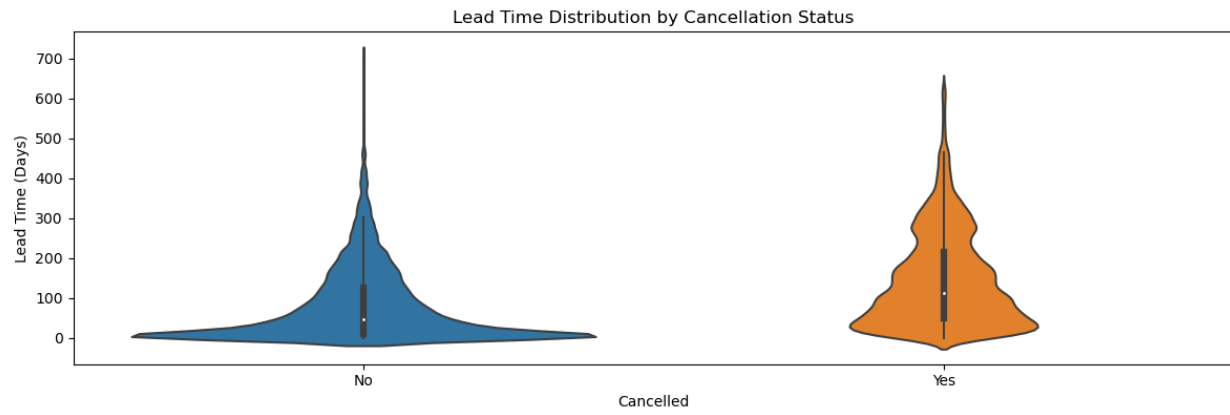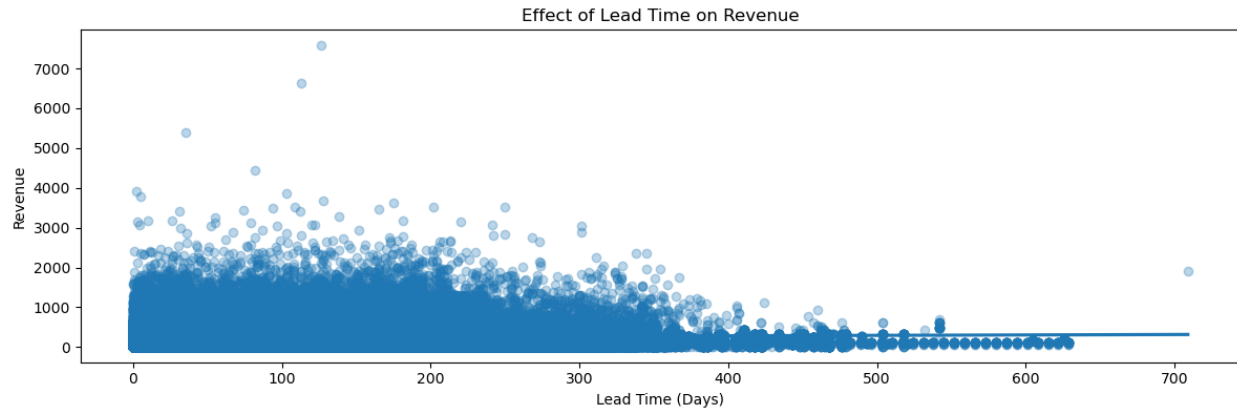

Average ADR by Customer Type: Corporate vs Other
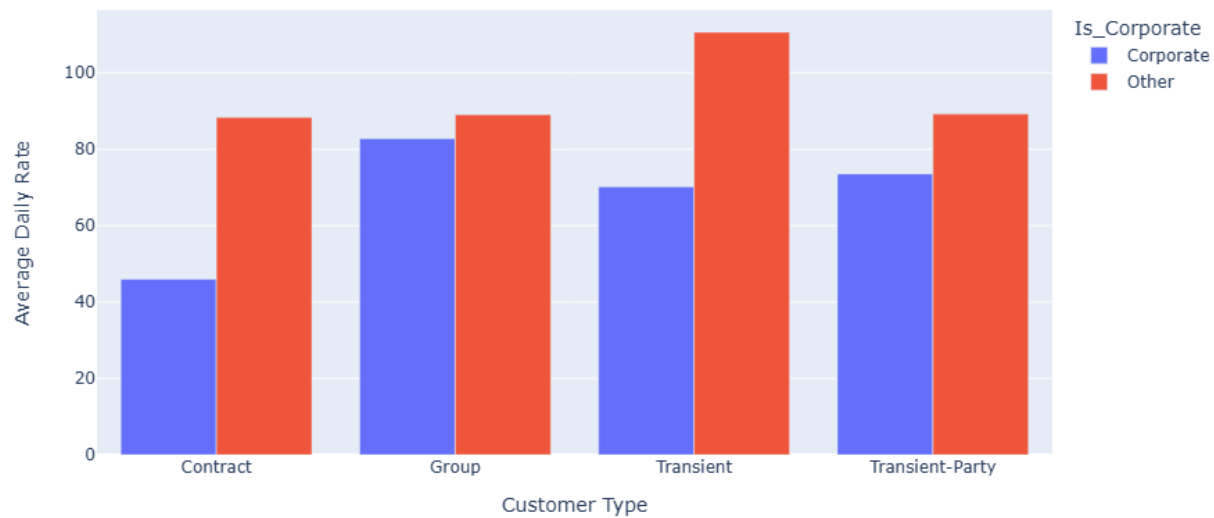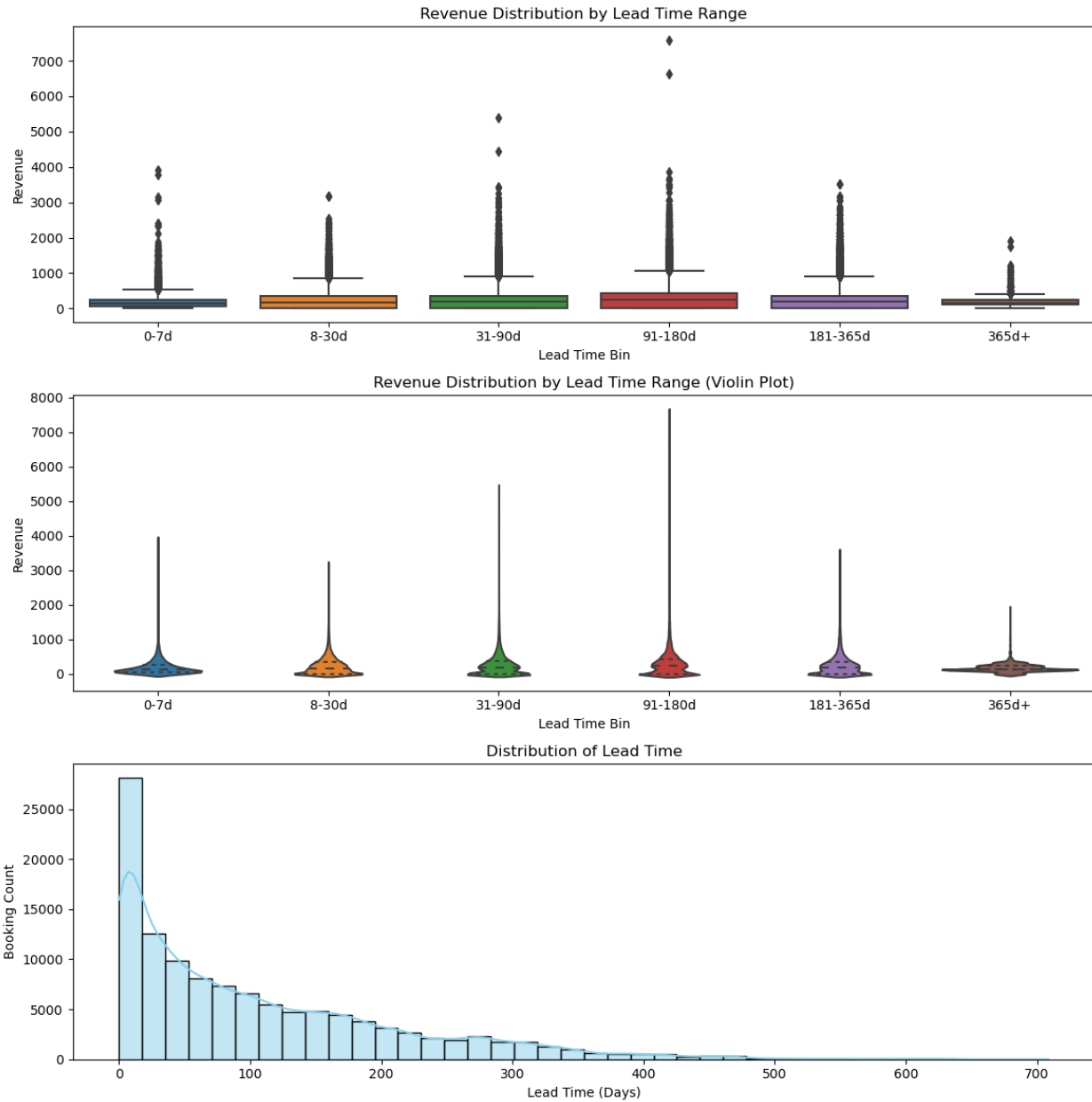
- **Actionable Insights:**
    1. Periodically review and renegotiate corporate rates to minimize revenue leakage. Consider tying discounts to higher minimum volumes, longer average stays, or off-peak periods.

2. Identify and target the most valuable existing corporate accounts for renewal and upselling.
3. Design marketing and loyalty initiatives that specifically address corporate travelers' weekday needs and preferences.
4. Minimize allocation of low-ADR corporate bookings during high-demand periods when higher-paying transient guests are likely
5. Expand outreach to new corporate accounts and industries to grow the segment volume beyond its current limited share.

9. **Time-to-Event Analysis**
   - **Findings:** Bookings made within 0-7 days offer steady, predictable revenue with low volatility and almost no cancellations, making them highly reliable for operations and planning. In contrast, longer lead times from 8 to over 90 days show more revenue variability and a clear decline in average realized revenue. Although some high-value bookings exist, they're rare and cancellations increase sharply, especially past the 30-day mark, often exceeding 90%. These extended lead-time bookings tend to be speculative, making forecasting harder and weakening revenue reliability. Short-lead bookings, by comparison, reflect stronger customer commitment and deliver consistent, dependable revenue that supports better planning and resource allocation.

Effect of Lead Time on Revenue

Lead Time Distribution by Cancellation Status

Cancellation Distribution by Lead Time Range

Revenue Distribution by Lead Time Range

Revenue Distribution by Lead Time Range (Violin Plot)

Distribution of Lead Time

- **Actionable Insights:**
  1. Use digital marketing to drive short notice bookings and boost occupancy with reliable, low-risk customers.
  2. Require deposits or enforce stricter policies for bookings made more than 7 days in advance, especially through channels with high historical cancellation rates.
  3. Use pre-stay reminders and value communications at timed intervals to reduce the risk of pre-arrival cancellation and reinforce booking intent.
  4. Promote express check-in, flexible stay options, and tailored pre-arrival communication to match the needs of spontaneous travelers.

10. Online vs. Offline Travel Agents

- **Findings:** Online Travel Agents (OTAs) now dominate the travel market, generating over 69% of global tourism revenue, a figure expected to rise. Platforms like Booking.com and Expedia often account for 20-50% of a hotel's online sales. While both OTAs and offline agents charge similar commissions (around 15%), OTAs drive significantly more volume and broader reach. However, they come with higher cancellation rates-often 39-60%-due to flexible booking policies. Offline agents, though declining, have more stable bookings with lower cancellation rates (10-25%). OTAs generate more total revenue and higher average daily rates, but unpredictable cancellations reduce realized revenue, unlike the steadier performance of traditional agents.

Revenue Contribution: Online vs Offline Travel Agents
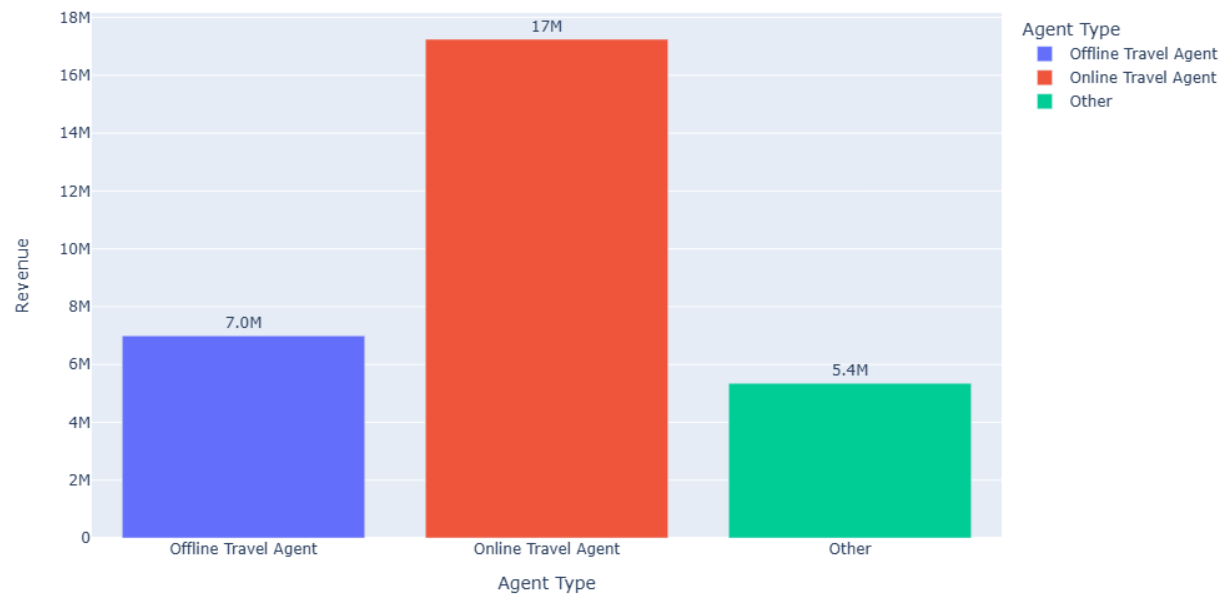
Cancellation Rate vs Average Revenue by Agent Type
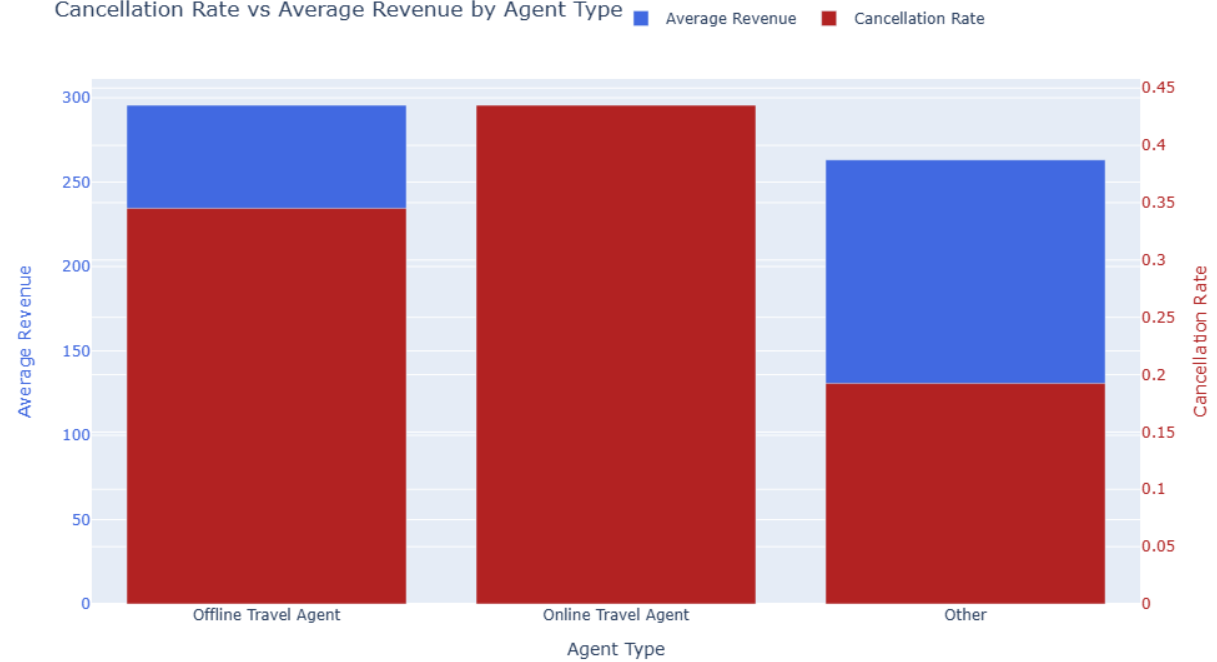
- **Actionable Insights:**
    1. Continue leveraging OTAs for their scale and global reach, especially for off-peak demand periods.

2. Implement "advance purchase" or non-refundable rate options on OTAs to improve revenue guarantee and reduce speculative bookings.
3. Foster relationships with key offline agent partners for high-value, group, or corporate business that demands greater service and reliability.

Strategic Recommendations Summary.

To drive sustainable growth, the Splendor Hotel Groups should adopt a data-centric strategy focused on the following pillars:

1. **Implement Dynamic Pricing:**
   - Maximize rates during peak seasons (Winter) and high-demand months (January, February, October).
   - Offer incentives and value packages to stimulate demand during off-peak periods (Summer, especially June).

2. **Optimize by Channel and Segment:**
   - Maintain high Average Daily Rates (ADR) for **Direct** and **Online Travel Agent (OTA)** bookings.
   - Review and renegotiate **Corporate** and **Offline Travel Agent** contracts to address their significantly lower ADRs.
   - Use low-ADR corporate and contract bookings to secure baseline occupancy, but prioritize higher-yield transient channels during peak demand.

3. **Refine Deposit and Cancellation Policies:**
   - Require deposits or enforce stricter cancellation policies for high-risk bookings, specifically those with long lead times (over 7 days) and those made via OTAs.
   - Incentivize **refundable deposits** for high-value transient guests to reduce cancellations while maintaining booking appeal.
   - Strategically deploy **non-refundable rates** for peak periods and last-minute deals to secure revenue.

4. **Leverage Lead Time Insights:**
   - Promote last-minute offers to capture low-risk, high-certainty bookings made within a 0-7 day window.
   - Use predictive analytics to calibrate overbooking levels, applying more aggressive overbooking to segments with high historical cancellation rates (e.g., OTAs, long lead times).

5. **Balance Distribution Channels:**
   - Continue leveraging OTAs for their high volume and market reach but mitigate their high cancellation risk with stricter policies.
   - Drive more traffic to the **Direct channel** by offering loyalty programs, exclusive perks, and a superior booking experience to capture high-ADR business and reduce commission costs.

- Nurture relationships with **Offline Travel Agents** for their stable, lower-cancellation bookings, especially for group and corporate segments.

6. **Target Key Geographic Markets:**
   - Sustain marketing investment in core markets: **Portugal, UK, France, Spain, and Germany**.
   - Develop targeted campaigns for emerging markets that show long-stay potential, such as the **US, China, and Brazil**.
   - Personalize marketing content and offers based on guest country of origin.

7. **Focus on High-Value Customer Segments:**
   - **Corporate:** Actively expand the corporate client base beyond its current 5.5% share. Focus on upselling value-added services rather than competing solely on price.
   - **Transient:** This is the largest revenue segment. Maximize its value with dynamic pricing and personalized promotions.
   - **Contract/Group:** Encourage longer stays from these segments to improve base occupancy.

8. **Optimize Staffing and Resource Allocation:**
   - Align staffing schedules with check-out patterns. Increase staff on peak days (**Sunday, Thursday, Friday**) and reduce on the slowest day (**Tuesday**).
   - Plan for seasonal staff increases to handle higher guest turnover during peak booking months.

9. **Enhance Customer Communication:**
   - For guests with **long lead times**, implement automated reminders and personalized communication to reinforce booking intent and reduce the likelihood of cancellation.
   - For guests with **short lead times**, offer streamlined services like express check-in to match the needs of spontaneous travelers.

10. **Improve Customer Satisfaction and Retention:**
    - Provide exclusive perks and superior service to loyalty members and direct bookers to encourage repeat business.
    - Proactively manage high-risk bookings with targeted communication to manage guest expectations and mitigate potential revenue loss.

Conclusion.

In conclusion, the comprehensive analysis of Splendor Hotel Group's data reveals a business heavily reliant on Online Travel Agents (OTAs), which contribute the largest share of revenue at approximately $17M. However, this high-volume channel also introduces significant risk, exhibiting the highest cancellation rate at around 43%.

The core challenge for the hotel group is to mitigate the revenue volatility and operational strain caused by this high-cancellation environment, which is further amplified by long booking lead times and a predominant "no deposit" policy. The data consistently points to a clear strategic path forward: shifting from a volume-centric model to a value-focused, data-driven approach.

The key to sustainable growth lies in rebalancing the channel mix to favor the high-ADR Direct channel, optimizing the stable Corporate segment, and implementing robust policies to manage risk. By leveraging predictive insights to inform pricing, staffing, and cancellation policies, Splendor Hotel Group can reduce its vulnerability, improve forecast accuracy, and enhance profitability. Ultimately, adopting these data-informed strategies will enable the group to build a more resilient, efficient, and profitable operational model.