

Excel Project: Advanced Power Query Transformations

Data Cleaning, Transformation, and Insights

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Project Overview



Objective: This project focuses on applying advanced Power Query techniques to clean, transform, and extract insights from real-world datasets. Using two CSV files—bookings_data.csv and rooms_data.csv—we explore practical data handling challenges.



Significance: The project demonstrates essential skills for data analysts, including cleaning messy data, integrating datasets, and uncovering actionable insights. These are vital for making data-driven decisions in business scenarios.



Goal: By the end of the project, we aim to deliver a clean, structured dataset that can support meaningful analysis and reporting.

Dataset Details

bookings_data.csv:

 Includes date, property details, city codes, room IDs, bookings, and capacity.

rooms_data.csv:

• Links room IDs with room classes.

Step 1 - Data Cleaning

Corrected inconsistent values in property_name (e.g., 'Atliq bay' to 'Atliq Bay').

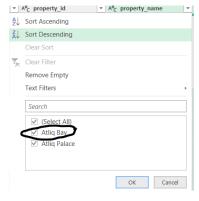
A® property_id
 ▼ A® property_name

 Sort Ascending
 Clear Sort

 Clear Filter
 Remove Empty
 Text Filters

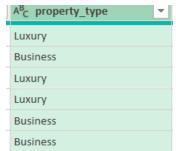
 Search
 ✓ (Select All)
 ✓ Atliq Bay
 ✓ Atliq Palace

OK Cancel

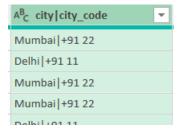


Trimmed whitespace from property_type.





Split city city code column into City and City Code.





	A ^B C property_type	A ^B _C city
•	Luxury	Mumbai
	Business	Delhi
	Luxury	Mumbai
	Luxury	Mumbai
	Business	Delhi
	Business	Delhi

Step 2 - Data Transformation

ABC Availability Status

) Sold Out

! Sold Out

7 Vacant

) Vacant

3 Vacant 3 Vacant

% occ%

Created new column:
 'Availability Status'.
Logic: 'Sold out' if bookings = capacity, otherwise 'Vacant'.



Added column: 'occ%' (occupancy percentage). Formula: bookings / capacity (formatted as percentage).



Merged bookings_data and rooms_data on room_id to add room_class.



100.00%

100.00%

100.00% 14.81%

35.00%

16.67% 23.68%

Reordered columns for better readability.



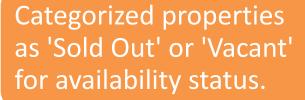
	A ^B C room_id ▼	A ^B C room_class ▼			
>_	RT2	Elite			
	RT1	Standard			
	RT1	Standard			
	RT3	Premium			
	RT3	Premium			
	RT4	Presidential			

Step 3 - Extracting Insights

Extracted month names from the date column for trend analysis.



Analyzed properties with high occupancy rates.





succes	sful_bookings total	capacity so	ld out v	acant to	otal occ%			
■ Atliq Bay						property_type	ÿΞ	5
Elite	164	240	150	14	68.33%			
Premium	146	216	135	11	67.59%	Business		
Presidential	17	36	12	5	47.22%	Luxury		
Standard	46	160	20	26	28.75%			
Atliq Bay Total	373	652	317	56	57.21%		.,	_
■ Atliq Palace						city	≶ ≡	18
Elite	162	304	114	48	53.29%	Delhi		
Premium	77	160	40	37	48.13%			
Presidential	66	144	36	30	45.83%	Mumbai		
Standard	196	328	123	73	59.76%			
Atliq Palace Total	501	936	313	188	53.53%			

Project Outcomes

Enhanced knowledge of Power Query for cleaning and transformations.

Gained insights into property bookings and room classifications.

Prepared dataset for advanced analytics and reporting.