

FURNITURE SALES **ANALYSIS** 2025

HUMAN AND AI DATA ANALYSIS



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ABOUT THE **ANALYSIS**

This project focuses on analyzing online furniture sales to uncover key business insights that support data-driven decision-making. Using **MySQL** for data extraction and cleaning, **Power BI** for interactive dashboards, and **PowerDrill AI** for generating advanced insights, the analysis highlights brand performance, customer preferences, and operational challenges.



THE STUDY **COVERS**

- Category-wise and brand-wise sales performance
- Identification of the most used payment methods
- Highest and lowest sales across brands
- Delivery cancellations and their impact



TASK PERFORMED BETWEEN **HUMAN AND AI**

HUMAN

- Cleaning and summarizing data
- Removing and replacing duplicate and null values
- Creating a database using **MySQL** and extracting insights
- Creating a Dashboard using **Power BI**

AI

- Uploading the data
- Understanding the data
- Extracting and explaining the insights
- Creating charts & Graphs
- Creating a Presentation

ABOUT THE DATA

The dataset includes key information such as **order_id**, **customer_id**, **product_category**, **product_subcategory**, **brand**, **delivery_status**, **assembly_service_requested**, **payment_method**, **product_price**, **shipping_cost**, **assembly_cost**, **total_amount**, **delivery_window_days**, and **customer_rating**.

A	B	C	D	E	F	G	H	I	J	K	L	M	N
order_id	customer_id	product_category	product_subcategory	brand	delivery_status	assembly_service_requested	payment_method	product_price	shipping_cost	assembly_cost	total_amount	delivery_window_days	customer_rating
14165	1488	Bedroom	Mattress	IKEA	Delivered	TRUE	Apple Pay	1467.44	0	184.29	1651.73	13	NIL
64987	4611	Bedroom	Wardrobe	Target	Delivered	FALSE	Debit Card	2867.47	141.85	0	3009.32	8	NIL
46421	3547	Bedroom	Wardrobe	CB2	Delivered	TRUE	Bank Transfer	777.62	0	53.37	830.99	1	
82357	5803	Bedroom	Chest of Drawers	CB2	Rescheduled	TRUE	PayPal	1989.68	142.9	36.46	2169.04	10	
92397	6925	Bedroom	Dresser	Urban Outfitters	Rescheduled	TRUE	Credit Card	2660.46	86.95	275.06	3022.47	12	
59823	5554	Bedroom	Nightstand	Overstock	In Transit	FALSE	PayPal	220.64	80.24	0	300.88	13	
69429	6977	Bedroom	Chest of Drawers	Target	Delivered	FALSE	Cash on Delivery	458.07	90.41	0	548.48	4	
31319	7065	Bedroom	Mattress	Wayfair	Delivered	FALSE	Bank Transfer	217.44	39.48	0	256.92	5	
59735	5422	Bedroom	Mattress	HomeGoods	Cancelled	FALSE	Google Pay	219.61	43.36	0	262.97	10	
93886	4598	Bedroom	Chest of Drawers	Crate & Barrel	Failed Delivery	TRUE	Credit Card	2134.61	74.4	44.46	2253.47	4	
14207	6168	Bedroom	Dresser	West Elm	In Transit	FALSE	Apple Pay	1403.64	73.45	0	1477.09	6	
30032	7126	Bedroom	Nightstand	Crate & Barrel	Delivered	TRUE	Cash on Delivery	693.24	124.63	31.91	849.78	13	
84364	2290	Bedroom	Mattress	Pottery Barn	Delivered	FALSE	Bank Transfer	1464.28	0	0	1464.28	11	NIL
96474	8787	Bedroom	Wardrobe	Pottery Barn	Pending	TRUE	Google Pay	864.29	126.75	47.59	1038.63	11	NIL
89507	7932	Bedroom	Chest of Drawers	Crate & Barrel	Pending	FALSE	Apple Pay	2214.02	146.73	0	2360.75	2	
42493	4681	Bedroom	Bed Frame	Unknown	In Transit	TRUE	Credit Card	2854.68	59.17	26.26	2940.11	6	
38080	9834	Bedroom	Mattress	West Elm	Delivered	TRUE	PayPal	1764.02	64.19	43.65	1871.86	4	
17944	7596	Bedroom	Dresser	World Market	Failed Delivery	TRUE	Bank Transfer	712.22	126.02	97.56	935.8	11	
65296	4006	Bedroom	Chest of Drawers	Urban Outfitters	Rescheduled	TRUE	Credit Card	1397.61	102.27	137.29	1637.17	5	
73092	4502	Bedroom	Wardrobe	Overstock	Rescheduled	FALSE	Cash on Delivery	544.44	0	0	544.44	14	
84668	5033	Bedroom	Chest of Drawers	West Elm	In Transit	FALSE	Cash on Delivery	2172.26	67.41	0	2239.67	9	
64948	9565	Bedroom	Mattress	Target	Rescheduled	TRUE	PayPal	1382.96	55.54	65.21	1503.71	3	
36772	6147	Bedroom	Mattress	CB2	Rescheduled	TRUE	Apple Pay	2027.39	110.51	27.03	2164.93	11	
37938	9288	Bedroom	Dresser	World Market	Cancelled	FALSE	Google Pay	1726.69		0	1726.69	13	
27601	5333	Bedroom	Dresser	Overstock	Delivered	FALSE	PayPal	2347.85	119.02	0	2466.87	6	
45697	5616	Bedroom	Mattress	Urban Outfitters	In Transit	TRUE	Credit Card	294.68	92.89	52.62	440.19	7	
42914	1922	Bedroom	Mattress	Ashley Furniture	In Transit	FALSE	Debit Card	1891.22	88.55	0	1981.77	9	

MY SQL ANALYSIS

CATEGORY-WISE TOTAL SALES

Input: `select distinct product_category, sum(round(total_amount)) as Total_amount from
online_furniture_retailer group by product_category;`

Output:

	product_category	Total_amount
▶	Bedroom	494248
	Dining Room	324640
	Kitchen	464149
	Living Room	443927
	Office	280899
	Outdoor	365043

MY SQL ANALYSIS

BRAND CATEGORY BY SALES

Input: `select brand, product_category , sum(round(total_amount)) as Total_amount from online_furniture_retailer group by brand, product_category;`

Output:

	brand	product_category	Total_am
►	IKEA	Bedroom	41280
	Target	Bedroom	40393
	CB2	Bedroom	32002
	Urban Outfitters	Bedroom	40794
	Overstock	Bedroom	51976
	Wayfair	Bedroom	36865
	HomeGoods	Bedroom	40679
	Crate & Barrel	Bedroom	33749
	West Elm	Bedroom	34830
	Pottery Barn	Bedroom	29405
	Unknown	Bedroom	28172
	World Market	Bedroom	38604
	Ashley Furniture	Bedroom	45499
	Ashley Furniture	Dining Room	26005
	HomeGoods	Dining Room	21749
	CB2	Dining Room	32759
	Urban Outfitters	Dining Room	21393
	West Elm	Dining Room	27804
	IKEA	Dining Room	28192
	World Market	Dining Room	35791
	Unknown	Dining Room	13134
	Target	Dining Room	19466
	Pottery Barn	Dining Room	28516
	Wayfair	Dining Room	25403
	Crate & Barrel	Dining Room	22047

MY SQL ANALYSIS

PAYMENT METHOD BY TOTAL AMOUNT

Input: `select distinct payment_method, sum(round(total_amount)) as Total_amount from
online_furniture_retailer group by payment_method order by Total_amount desc;`

Output:

	payment_method	Total_amount
▶	Credit Card	390751
	Apple Pay	355751
	Cash on Delivery	335418
	Google Pay	328749
	Debit Card	322810
	Bank Transfer	322365
	PayPal	317062

MY SQL ANALYSIS

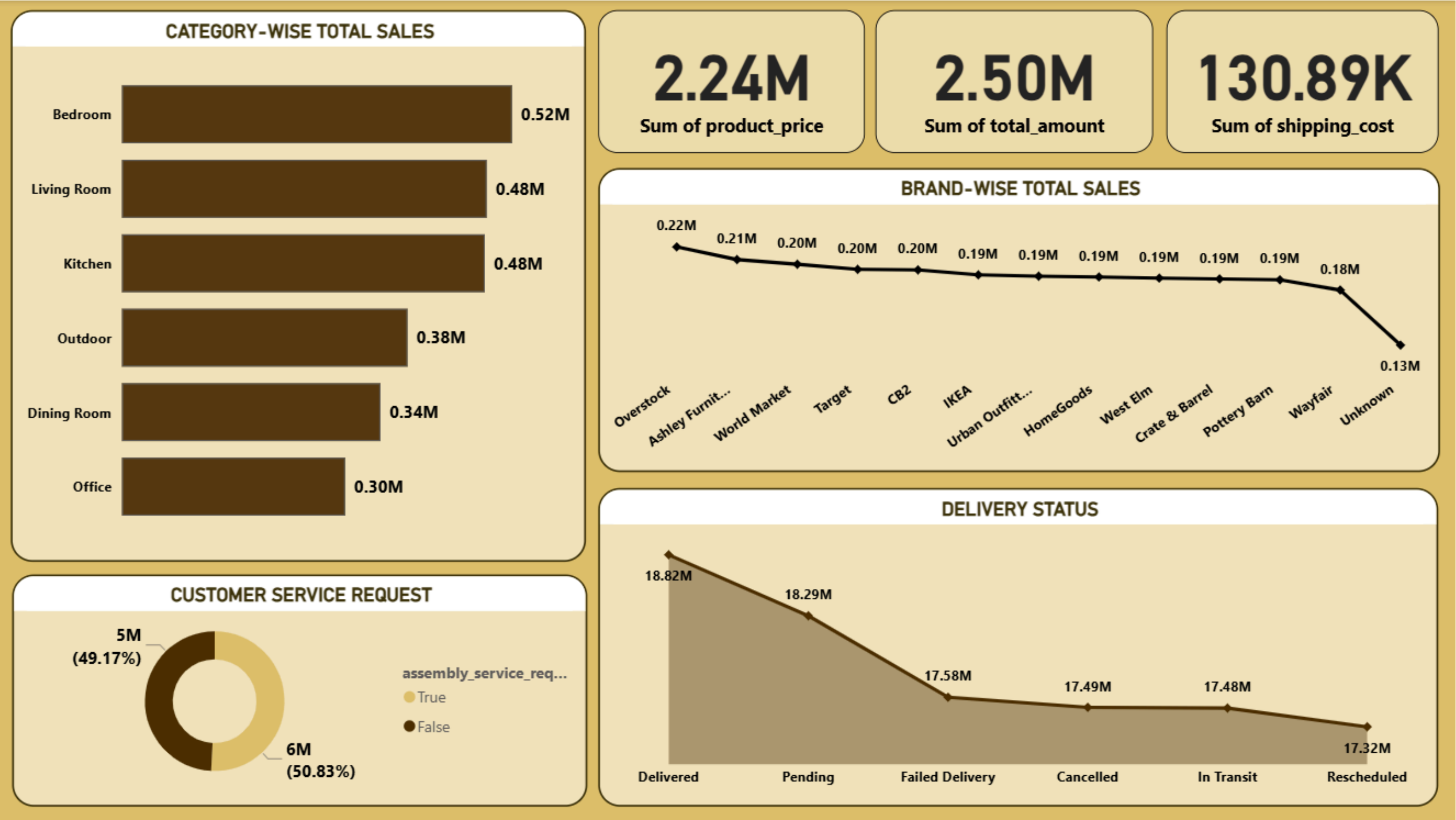
BRAND WISE HIGHEST SALES

Input: select distinct brand, max(total_amount) as Highest_sales from online_furniture_retailer
group by brand;

Output:

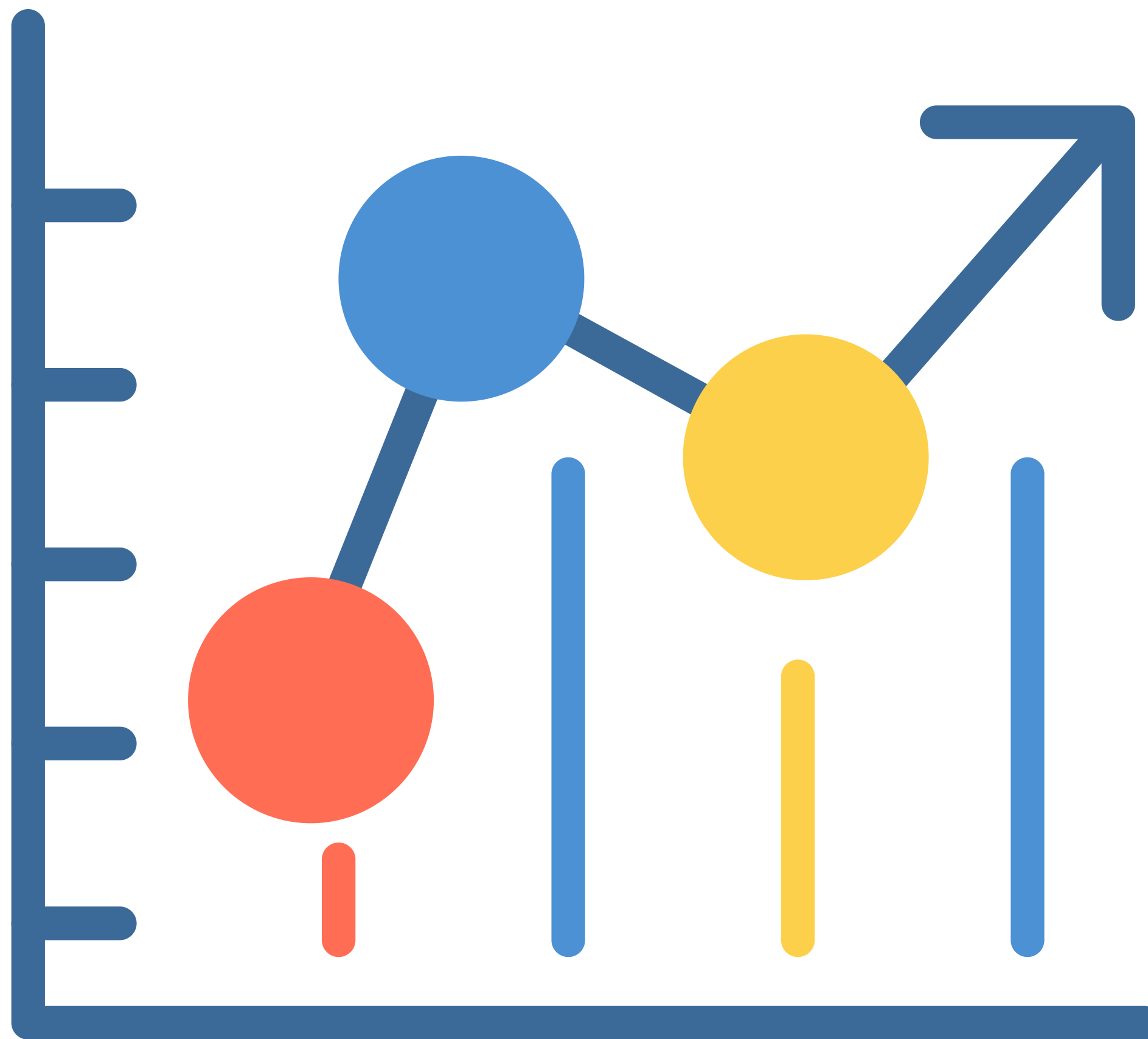
	brand	Highest_sales
►	IKEA	2979.56
	Target	3092.57
	CB2	2736.71
	Urban Outfitters	3022.47
	Overstock	3090.23
	Wayfair	2983.05
	HomeGoods	3032.31
	Crate & Barrel	2950.68
	West Elm	3041.4
	Pottery Barn	2960.26
	Unknown	3093.29
	World Market	3003.48
	Ashley Furniture	2892.32

POWER BI DASHBOARD





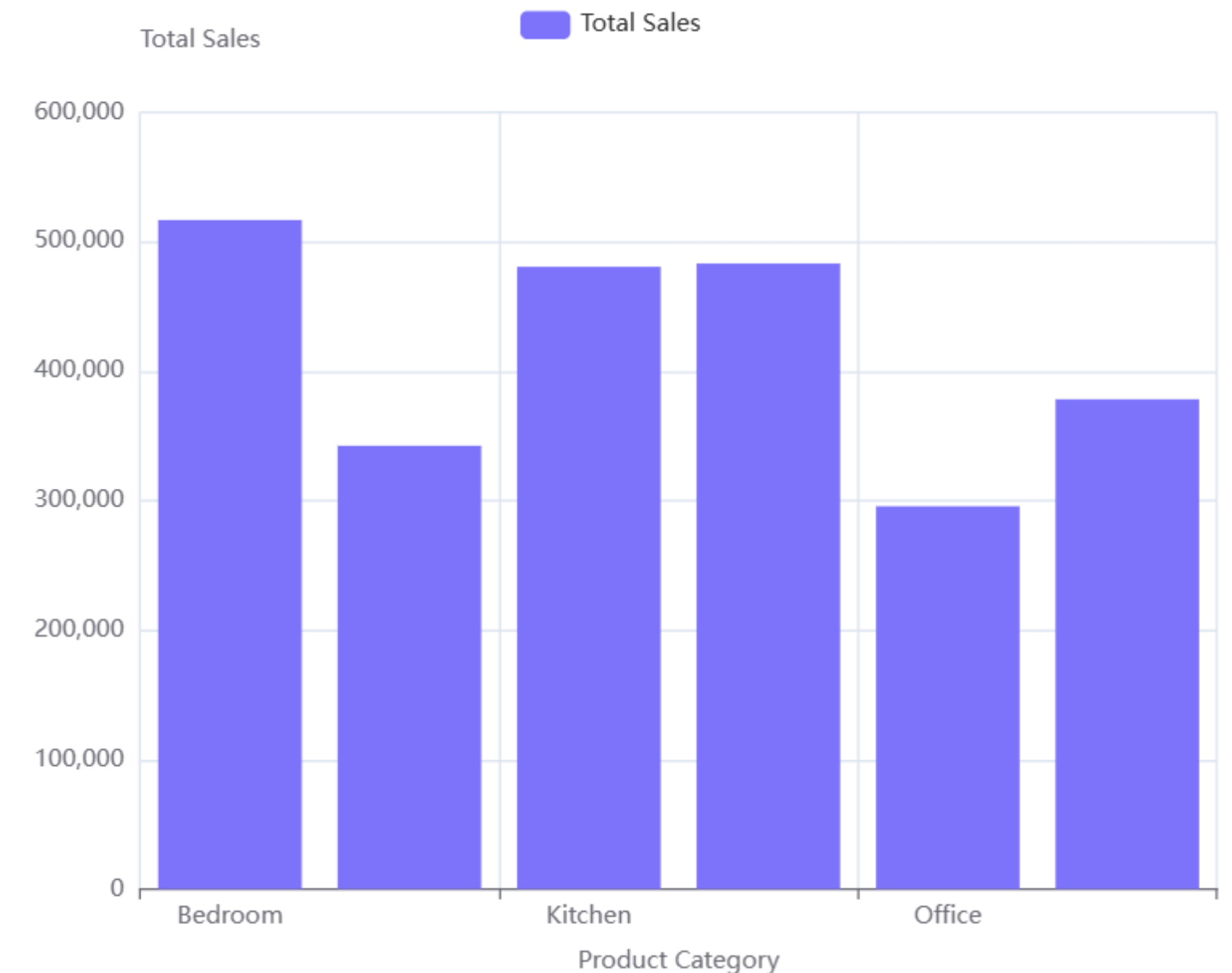
AI
**DATA
ANALYSIS &
PRESENTATION**



AI ANALYSIS

CATEGORY-WISE TOTAL SALES

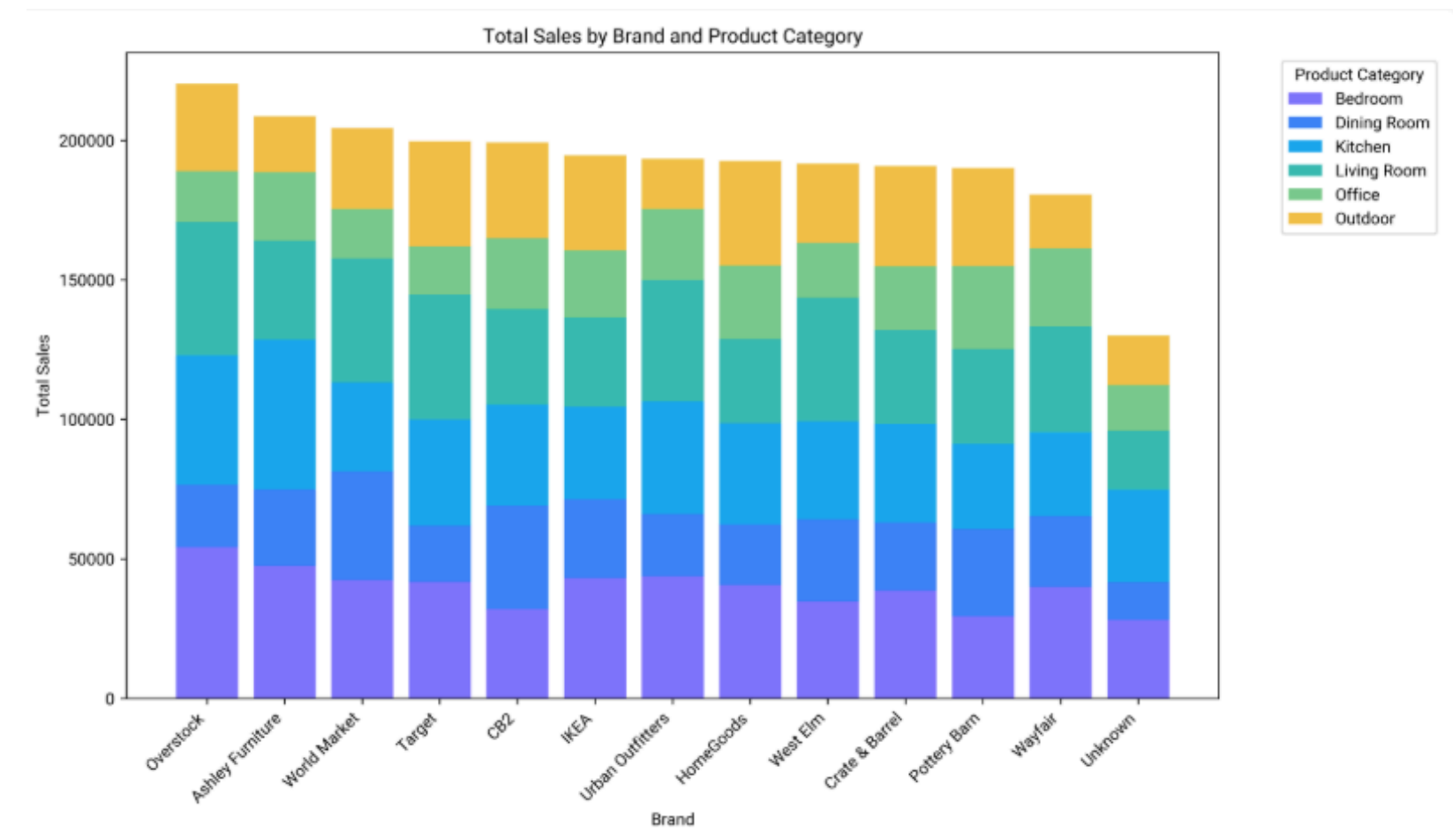
- Bedroom : Generated the highest total sales at 516,730.84.
- Living Room : Followed closely with total sales of 483,166.13.
- Kitchen : Also showed strong performance with total sales of 480,646.75.
- Outdoor : Recorded total sales of 378,300.86.
- Dining Room : Had total sales of 342,392.30.
- Office : Generated the lowest total sales among all categories at 295,662.96.



AI ANALYSIS

SALES ANALYSIS BY BRAND AND PRODUCT CATEGORY

- **Top Performing Brands:** Overstock, Ashley Furniture, and World Market demonstrate the highest overall total sales, each exceeding approximately \$200,000. These brands show strong performance across multiple product categories.
- **Mid-Tier Brands:** Brands like Target, CB2, IKEA, Urban Outfitters, HomeGoods, West Elm, Crate & Barrel, and Pottery Barn exhibit substantial total sales, generally ranging from approximately \$180,000 to \$200,000.
- **Lower Performing Brands:** Wayfair and an 'Unknown' brand show significantly lower total sales compared to other brands, with the 'Unknown' brand having the lowest overall sales.



AI ANALYSIS

ANALYSIS OF TOTAL SALES BY PAYMENT METHOD

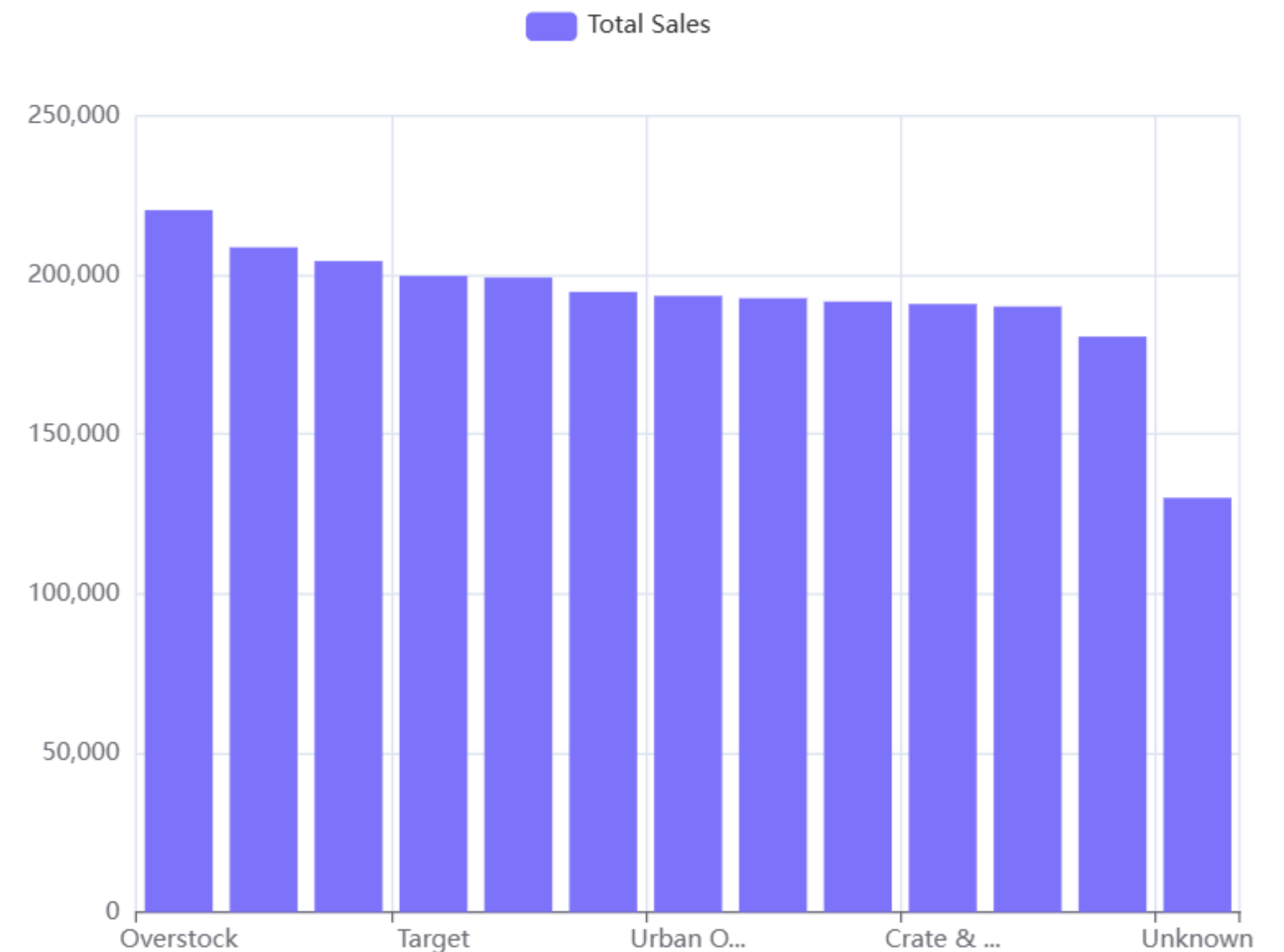
- **Credit Card** : The payment method with the highest total sales, reaching 418,883.06.
- **Apple Pay** : Ranks as the second highest payment method with total sales of 370,282.41.
- **Cash on Delivery** : Generated total sales of 349,713.69.
- **Bank Transfer** : Accounted for total sales of 345,986.10.
- **Google Pay** : Recorded total sales of 345,363.30.
- **Debit Card** : Had total sales of 339,963.30.
- **PayPal** : The payment method with the lowest total sales, amounting to 326,707.98.



AI ANALYSIS

ANALYSIS OF BRAND SALES PERFORMANCE

- **Overstock:** Achieved the highest total sales with \$220,392.97.
- **Ashley Furniture:** Ranked second with total sales of \$208,714.57.
- **World Market:** Followed closely with total sales of \$204,412.63.
- **Target:** Recorded total sales of \$199,745.71.
- **CB2:** Had total sales of \$199,212.56.
- **IKEA:** Generated total sales of \$194,711.43.
- **Urban Outfitters:** Reported total sales of \$193,460.99.
- **HomeGoods:** Achieved total sales of \$192,746.79.
- **West Elm:** Had total sales of \$191,679.18.
- **Crate & Barrel:** Recorded total sales of \$190,915.92.
- **Pottery Barn:** Generated total sales of \$190,134.17.
- **Wayfair:** Reported total sales of \$180,698.09.
- **Unknown:** Had the lowest total sales among all brands, at \$130,074.83.



AI ANALYSIS

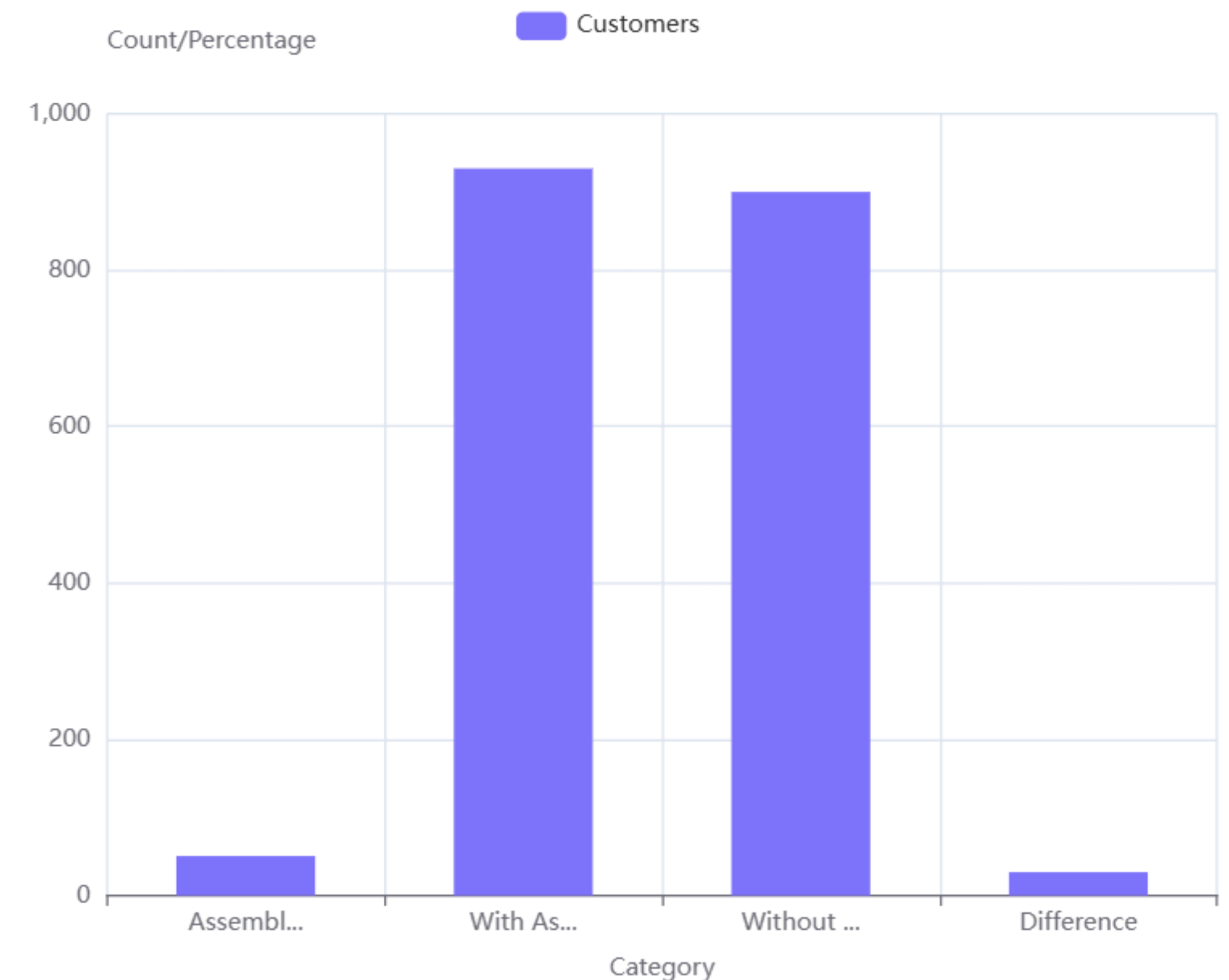
CUSTOMER ASSEMBLY SERVICE ANALYSIS

- **Percentage of Orders with Assembly Service:**

Approximately 50.62% of all orders included a request for assembly service.

Customer Engagement with Assembly Service

- Unique Customers Requesting Assembly: There were 930 unique customers who requested assembly service.
- Unique Customers Not Requesting Assembly: There were 900 unique customers who did not request assembly service.
- Difference in Customer Counts: The number of unique customers who requested assembly service was 30 more than those who did not request the service.





THANK YOU



<https://github.com/Rubel204>



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