

# Coffee Sales Analysis

Dataset Path: C:\Users\hi\Desktop\Coffe\_sales.csv  
Generated: 2025-09-23 11:58  
Version: v1.0

This report consolidates dataset previews, data quality checks, exploratory visualizations, and hypothesis tests into a single PDF.

# Data Summary

First 5 rows:

	hour_of_day	cash_type	money	...	Date	Time	date
0	10	card	38.7	...	2024-03-01	10:15:50.520000	2024-03-01
1	12	card	38.7	...	2024-03-01	12:19:22.539000	2024-03-01
2	12	card	38.7	...	2024-03-01	12:20:18.089000	2024-03-01
3	13	card	28.9	...	2024-03-01	13:46:33.006000	2024-03-01
4	13	card	38.7	...	2024-03-01	13:48:14.626000	2024-03-01

[5 rows x 12 columns]

Dataset shape: (3547, 12)

Info:

<class 'pandas.core.frame.DataFrame'>

RangeIndex: 3547 entries, 0 to 3546

Data columns (total 12 columns):

#	Column	Non-Null Count	Dtype
0	hour_of_day	3547 non-null	int64
1	cash_type	3547 non-null	object
2	money	3547 non-null	float64
3	coffee_name	3547 non-null	object
4	Time_of_Day	3547 non-null	object
5	Weekday	3547 non-null	object
6	Month_name	3547 non-null	object
7	Weekdaysort	3547 non-null	int64
8	Monthsort	3547 non-null	int64
9	Date	3547 non-null	object
10	Time	3547 non-null	object
11	date	3547 non-null	datetime64[ns]

dtypes: datetime64[ns](1), float64(1), int64(3), object(7)

memory usage: 332.7+ KB

Missing values per column:

hour_of_day	0
cash_type	0
money	0
coffee_name	0
Time_of_Day	0
Weekday	0
Month_name	0
Weekdaysort	0
Monthsort	0
Date	0
Time	0
date	0

dtype: int64

## Data Summary (cont.)

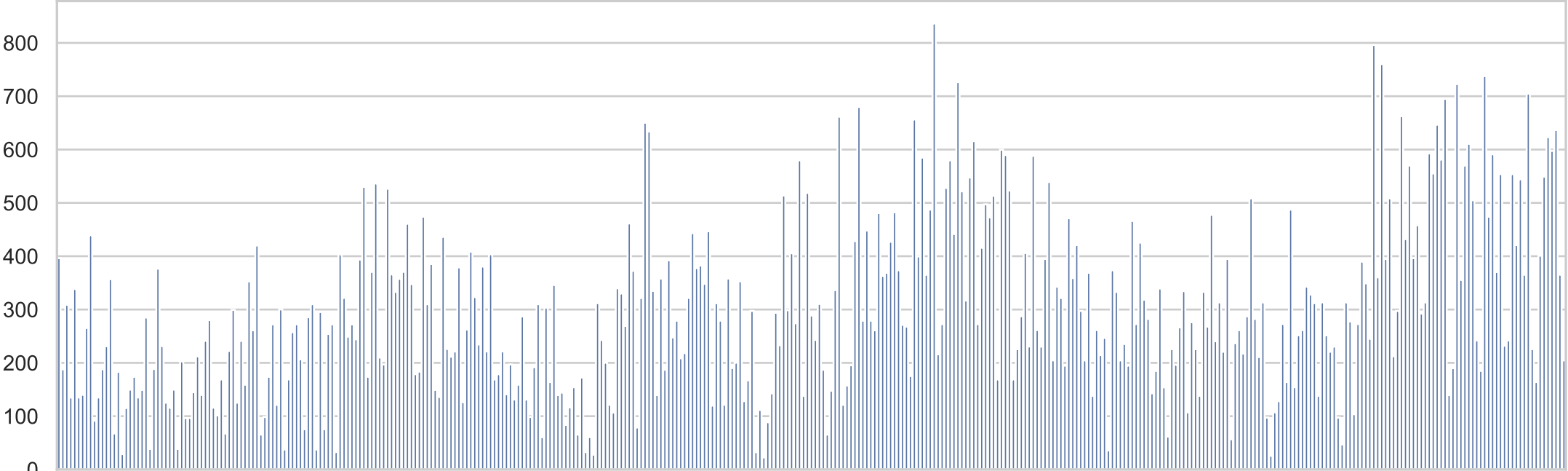
Number of duplicate rows: 0

Descriptive statistics (numeric columns):

	hour_of_day	money	Weekdaysort	Monthsort	date	
count	3547.000000	3547.000000	3547.000000	3547.000000	3547	
mean	14.185791	31.645216	3.845785	6.453905	2024-10-04	17:34:43.676346368
min	6.000000	18.120000	1.000000	1.000000	2024-03-01	00:00:00
25%	10.000000	27.920000	2.000000	3.000000	2024-07-17	12:00:00
50%	14.000000	32.820000	4.000000	7.000000	2024-10-10	00:00:00
75%	18.000000	35.760000	6.000000	10.000000	2025-01-11	00:00:00
max	22.000000	38.700000	7.000000	12.000000	2025-03-23	00:00:00
std	4.234010	4.877754	1.971501	3.500754	NaN	

Daily Coffee Sales Over Time

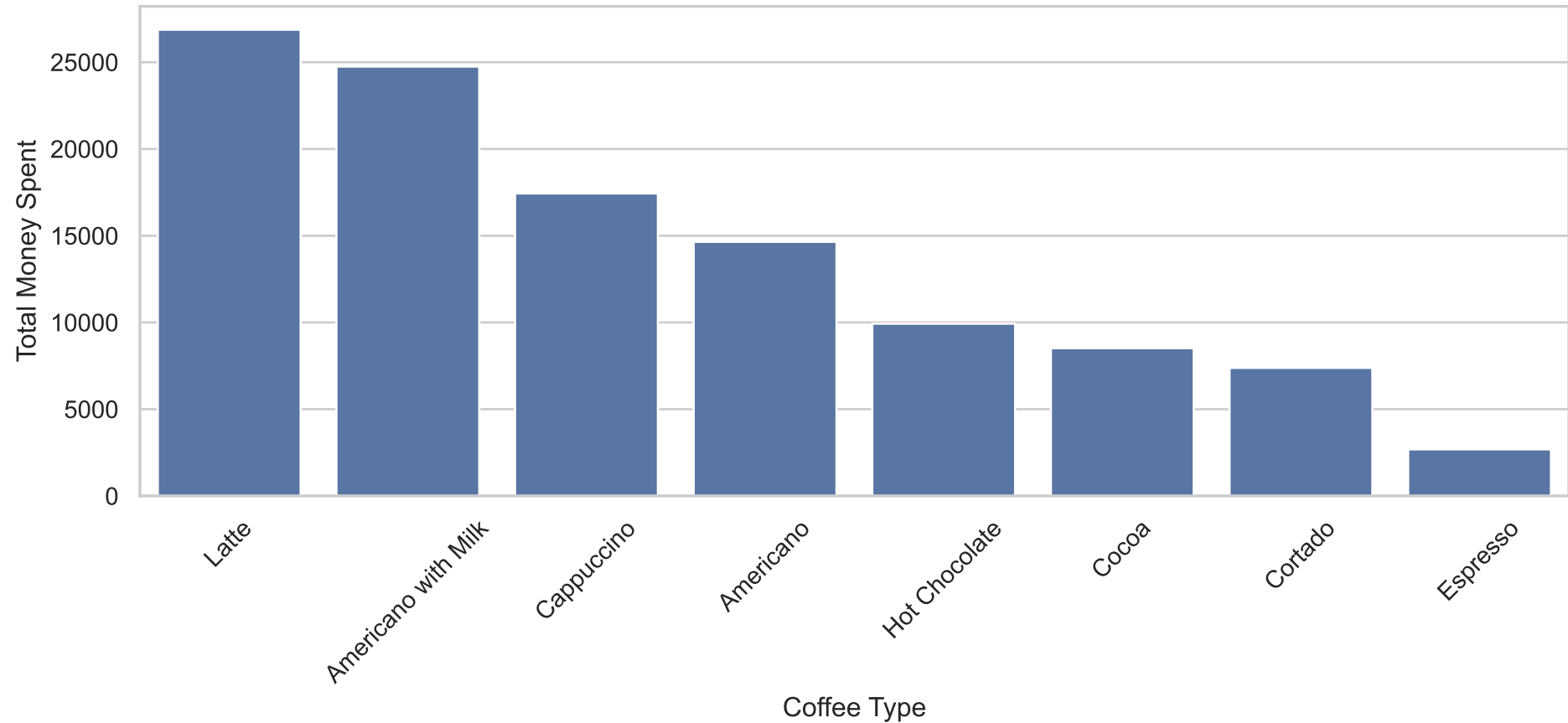
Total Money Spent



Date

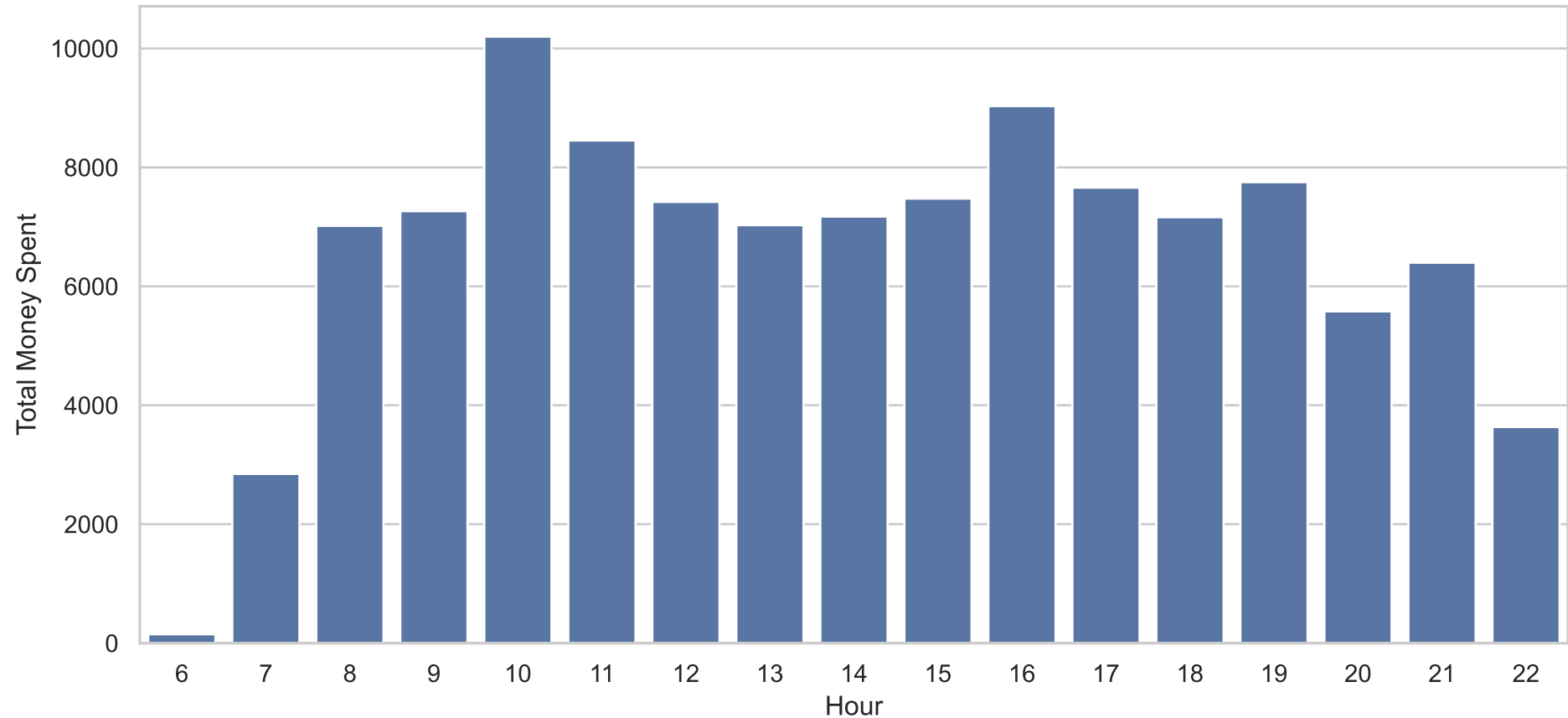
## Total Sales by Coffee Type

Report Date: 2025-09-23 11:58  
Report Version: v1.0



# Total Sales by Hour of Day

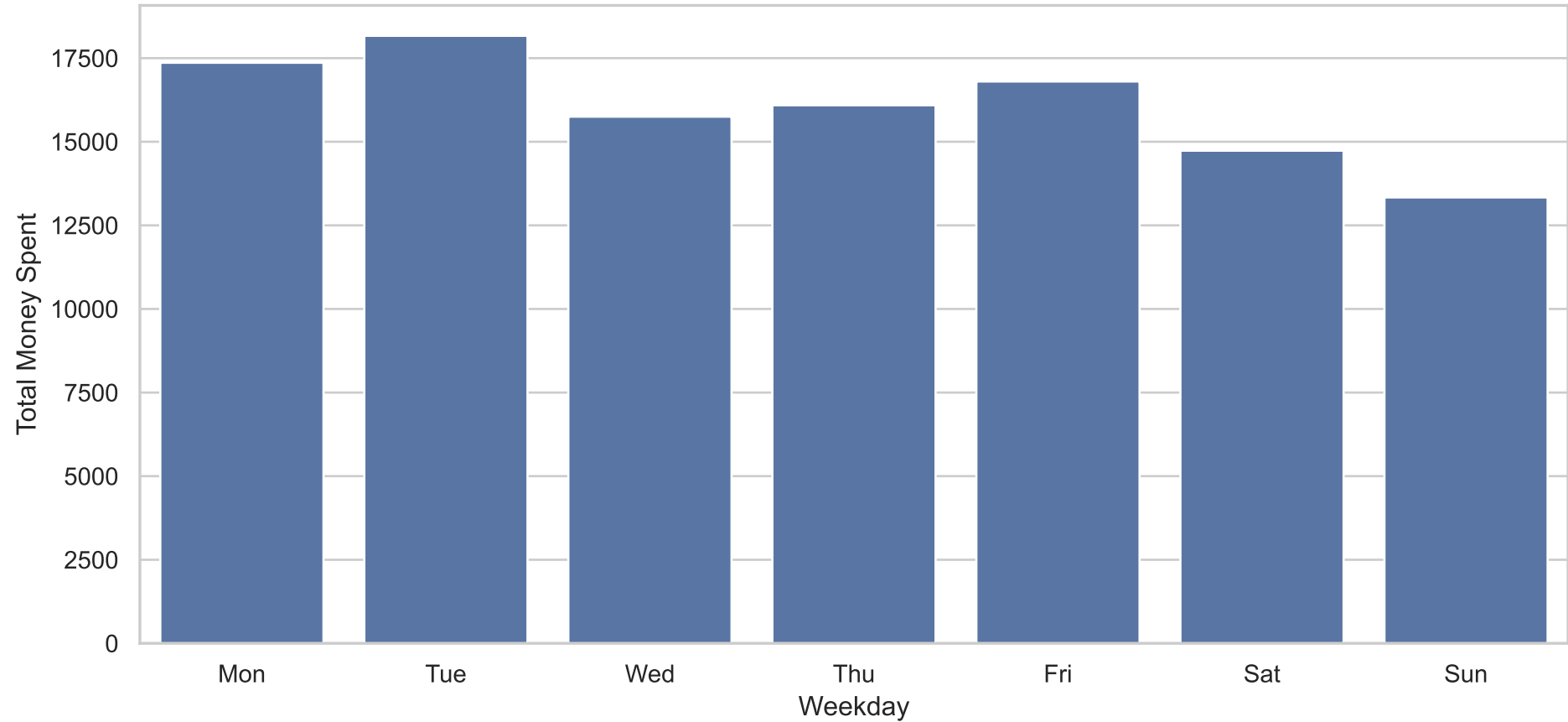
Report Date: 2025-09-23 11:58  
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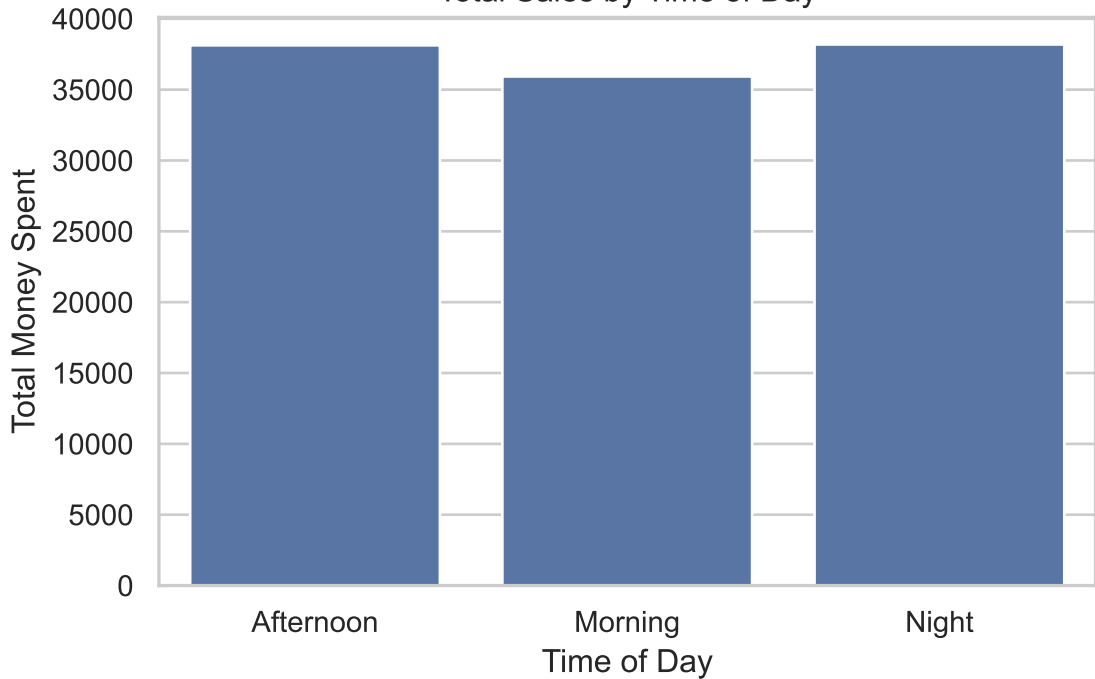
# Total Sales in a Week

Report Date: 2025-09-23 11:58

Report Version: v1.0

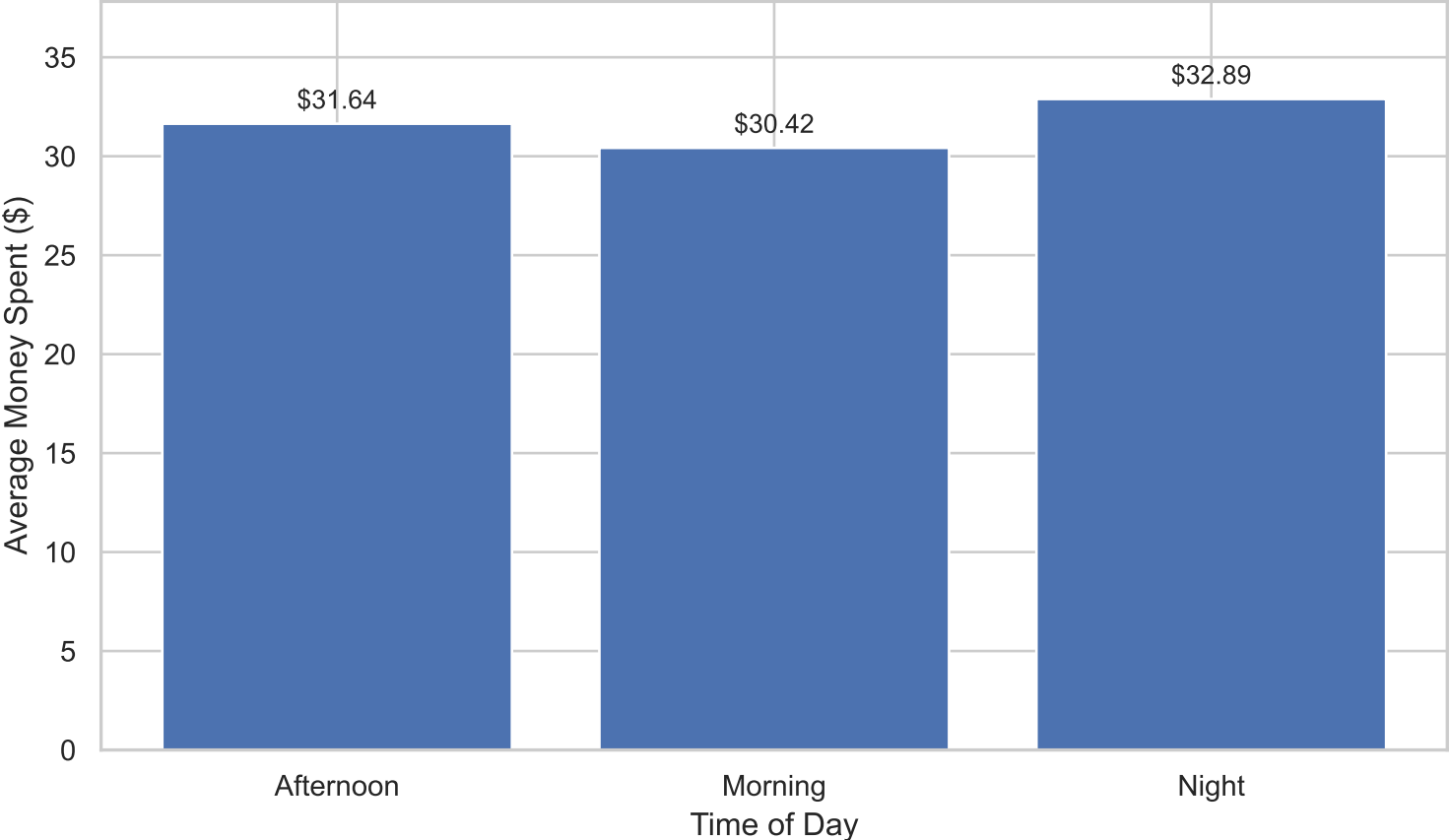


## Total Sales by Time of Day





# Average Coffee Sales by Time of Day



# Hypothesis Testing Results

## Two-Sample t-Test (Weekend vs Weekday)

t-statistic: -0.4958  
p-value: 0.6201  
Average weekend sale: 31.57  
Average weekday sale: 31.67  
Conclusion: Fail to reject the null: no significant difference between weekend and weekday means.

## One-Way ANOVA (Morning vs Afternoon vs Night)

F-statistic: 78.2178  
p-value: 0.0000  
Average Morning sale: 30.42  
Average Afternoon sale: 31.64  
Average Night sale: 32.89  
Conclusion: Reject the null: at least one time-of-day mean differs.