

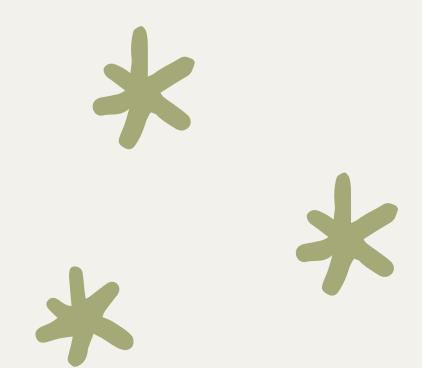


WHISKEY BEHIND THE SPIRIT

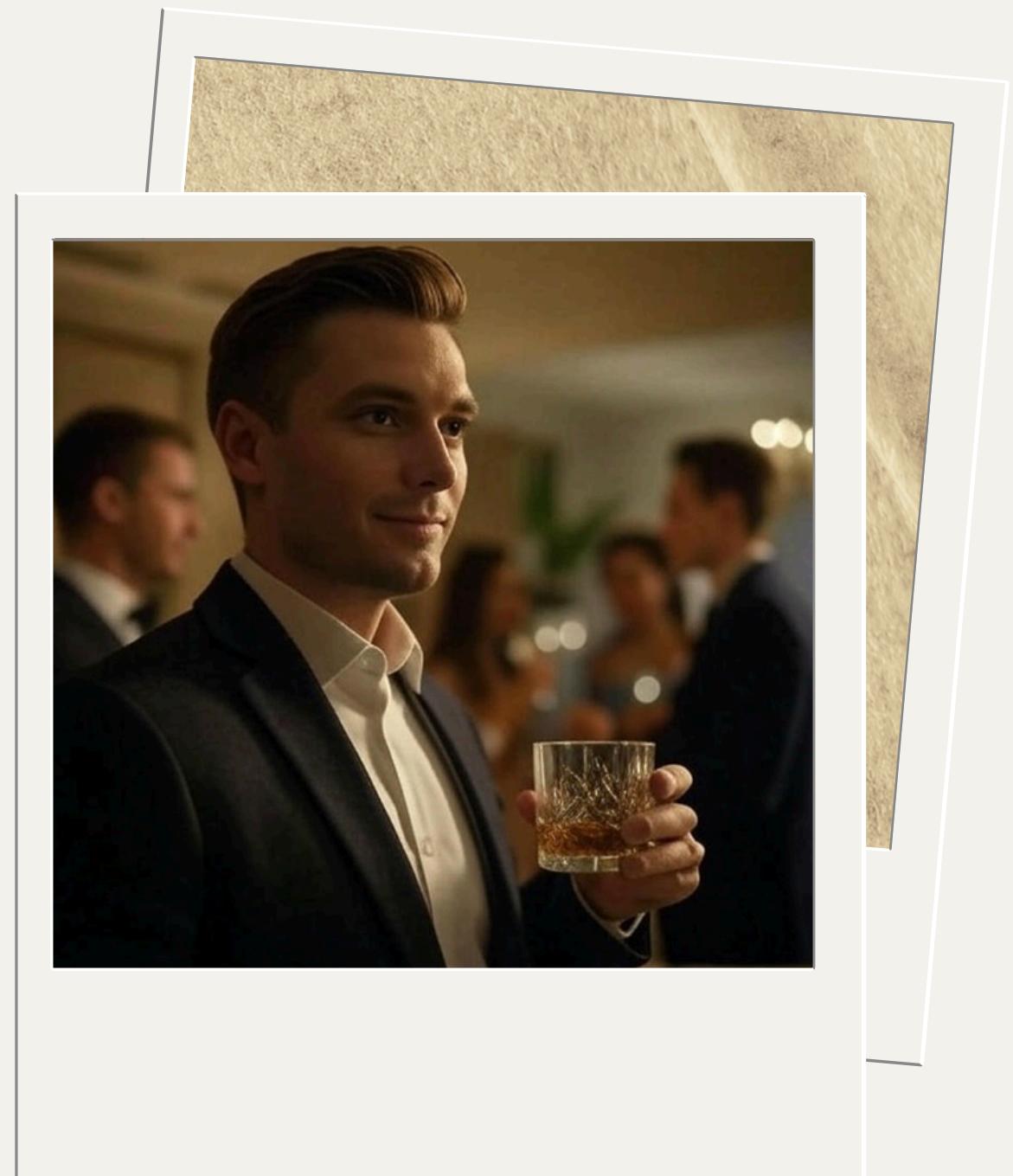
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PROBLEM STATEMENT



- Due to lack of structured data in the collectible whisky market leads to uncertain decisions.
- This project uses data analysis to uncover insights into pricing, quality, and trends – enabling smarter investments and sales.



TABLE

brand	varieties	type	centiliter	year	abv_percent	abv_category	price_rupees	mili_liter	country
Angel's Envy	Straight Port Cask Finish Bourbon	Bourbon	70	NAS	3	Low	6810	700	United States
Angel's Envy	Manhattan Bundle - Martini Rubino Vermouth & ...	Bourbon	70	NAS	3	Low	9082	700	United States
Buffalo Trace	Traveller Bourbon Whiskey (Chris	Bourbon	70	NAS	45	Medium	3630	700	United States
Buffalo Trace	Kosher Wheat Recipe Bourbon	Bourbon	75	NAS	47	High	4993	750	United States
Elijah Craig	Barrel Proof Kentucky Straight Bourbon	Barrel	70	NAS	8	Low	14194	700	Scotland
Maker's Mark	Kentucky Straight Bourbon	Kentucky	70	NAS	45	Medium	4084	700	Kentucky
Ben Holladay	Soft Red Wheat Bottled In Bond Straight Bourbon	Bourbon	70	NAS	50	High	9082	700	United States
Booker's	2024-01 Batch Bourbon	Bourbon	70	7 Year Old	2	Low	10218	700	United States
Wild Turkey	Rare Breed Kentucky Straight Bourbon	Kentucky	70	NAS	4	Low	6810	700	Kentucky
Wild Turkey	81 Kentucky Straight Bourbon	Kentucky	70	NAS	5	Low	3402	700	Kentucky
Maker's Mark	46 Kentucky Straight Bourbon	Kentucky	70	NAS	47	High	4538	700	Kentucky
Wild Turkey	101 Kentucky Straight Bourbon	Kentucky	70	NAS	5	Low	4538	700	Kentucky
Old Bardstown	Kentucky Straight Bourbon	Kentucky	70	NAS	45	Medium	4538	700	Kentucky
Leiper's ...	Bottled In Bond Bourbon	Bourbon	70	4 Year Old	50	High	9082	700	United States
Leiper's ...	Bottled In Bond Tennessee Bourbon	Tennessee	70	4 Year Old	50	High	9082	700	Tennessee

RANK WHISKIES WITHIN EACH COUNTRY BASED ON PRICE (TOP 5 HIGHEST FIRST)

```
SELECT
    brand,
    country,
    price_rupees
FROM (
    SELECT
        brand,
        country,
        price_rupees,
        DENSE_RANK() OVER (
            PARTITION BY country
            ORDER BY price_rupees DESC
        ) AS price_rank_country
    FROM
        whiskey
    ) AS ranked_whiskey
WHERE
    price_rank_country = 1
    ORDER BY price_rupees DESC
LIMIT 5;
```

OUTPUT :

brand	country	price_rupees
Midleton	England	5452794
Yamazaki	Japan	1022394
Yamazaki	United States	624800
Eagle Rare	Kentucky	477114
Bushmills	Ireland	215834

* * RETRIEVE ALL WHISKIES WITH AN ABV GREATER THAN 50%.

```
SELECT brand , abv_percent  
FROM whiskey  
WHERE abv_percent > 50;
```

OUTPUT:

brand	abv_percent
Yellowstone	54
William Larue Weller	57
Stagg Jr	95
Macaloneyâ€™s	57
Yamazaki	56
The Irishman	54
Starward	52
Starward	56

CALCULATE RUNNING TOTAL OF WHISKY PRICES BY BRAND

```
SELECT brand ,  
       price_rupees ,  
       SUM(price_rupees) OVER(PARTITION BY brand ORDER BY price_rupees DESC) running_total  
FROM whiskey;
```

OUTPUT :

brand	price_rupees	running_total
Aber Falls	7946	7946
Aber Falls	6810	14756
Aber Falls	6697	21453
Aber Falls	2834	24287
Amrut	11014	11014
Amrut	9082	20096
Amrut	8401	28497
Amrut	6697	35194
Amrut	6583	41777
Amrut	5106	46883
Angel's E...	9082	9082
Angel's E...	6810	15892
Balcones	5674	5674
Bankhall	4538	4538
Bankhall	3402	7940
Bankhall	2834	10774

COUNT THE NUMBER OF WHISKIES FOR EACH BRAND.

```
SELECT brand , COUNT(*) as Number_of_whiskeys  
FROM whiskey  
GROUP BY brand;
```

OUTPUT :

brand	Number_of_whiskeys
Angel's Envy	2
Buffalo Trace	8
Elijah Craig	3
Maker's Mark	2
Ben Holladay	1
Booker's	2
Wild Turkey	4
Old Bardstown	1
Leiper's Fork	2
Old Forester	1
Jim Beam	1
Basil Hayden's	1
SirDavis	1
Jack Daniel's	22
Rebel	1
Knob Creek	1

SHOW EACH WHISKY ALONG WITH THE AVERAGE ABV OF ITS TYPE

```
SELECT type ,  
       AVG(abv_percent) as avg_abv  
  FROM  
whiskey  
 GROUP BY type  
 ORDER BY avg_abv DESC;
```

OUTPUT :

type	avg_abv
Rum Finish	50.0000
Suntory	47.0000
American	43.1667
Harmony	43.0000
Australian	42.9286
Canadian	42.2500
Tennessee	41.7857
Formula 1	41.0000
Welsh	38.5789
Japanese	38.4186
Irish	37.5203
Indian	35.9000
Very Rare	32.5238
Barrel	31.1935
English	27.2308
Rye	27.1034

FIND THE DIFFERENCE IN PRICE BETWEEN EACH WHISKY AND THE PREVIOUS ONE (BY BRAND)

```
SELECT brand ,  
       price_rupees ,  
       LAG(price_rupees) OVER(PARTITION BY brand ORDER BY price_rupees ) previous_one ,  
       price_rupees - LAG(price_rupees) OVER(PARTITION BY brand ORDER BY price_rupees) price_diff  
FROM  
whiskey;
```

OUTPUT :

brand	price_rupees	previous_one	price_diff
Aber Falls	2834	NULL	NULL
Aber Falls	6697	2834	3863
Aber Falls	6810	6697	113
Aber Falls	7946	6810	1136
Amrut	5106	NULL	NULL
Amrut	6583	5106	1477
Amrut	6697	6583	114
Amrut	8401	6697	1704
Amrut	9082	8401	681
Amrut	11014	9082	1932
Angel's E...	6810	NULL	NULL
Angel's E...	9082	6810	2272
Balcones	5674	NULL	NULL
Bankhall	2834	NULL	NULL
Bankhall	3402	2834	568
Bankhall	4538	3402	1136

FOR EACH TYPE, SHOW THE WHISKY WITH THE HIGHEST ABV IN EACH COUNTRY

```
WITH RankedWhiskies AS (
    SELECT
        brand,
        type,
        country,
        abv_percent,
        DENSE_RANK() OVER (
            PARTITION BY type, country
            ORDER BY abv_percent DESC
        ) AS abv_rank
    FROM
        whiskey
)
SELECT
    type,
    COUNT(*) AS top_whiskies_count
FROM
    RankedWhiskies
WHERE
    abv_rank = 1
GROUP BY
    type
ORDER BY top_whiskies_count DESC;
```

OUTPUT :

type	top_whiskies_count
Harmony	9
Japanese	9
Tennessee	5
Rye	4
Formula 1	2
Very Rare	2
Welsh	2
American	1
Australian	1
Barrel	1
Bourbon	1
Canadian	1
Eagle	1
English	1
Indian	1
Irish	1
Kentucky	1
Rum Finish	1

BUSINESS INSIGHTS

1. Top Performing Brands by Price

- Certain brands consistently appear among the highest-priced whiskies, suggesting premium positioning (e.g., Yamazaki, Macallan, Glenfiddich).
- These brands are ideal for targeting luxury or connoisseur segments.

2. Country-Wise Price & ABV Trends

- Scotland and Japan dominate the high-priced segment, indicating their strong global reputation.
- Indian and American whiskies are competitively priced, making them attractive for emerging market consumers.
- Japanese whiskies often have high ABV and high price, suggesting a premium and potent market position.

3. High ABV Correlates with Higher Price (for Select Types)

- In several categories, especially Scotch and Japanese whisky, a higher alcohol content (ABV%) is positively correlated with price.
- Suggests that customers may perceive higher ABV as higher quality or rarity.

* * CONCLUSION

- Premium brands from regions like Japan and Scotland consistently dominate the high-end market.
- ABV% plays a crucial role in influencing price, with higher-proof whiskies generally commanding a premium.
- Country-specific types, such as Bourbon (USA) and Scotch (Scotland), provide unique positioning opportunities for global distribution and marketing.
- Volume size and ABV category offer additional levers for pricing and branding strategies.
- Several brands exhibit broad product ranges, enabling them to serve both mass-market and niche connoisseur audiences.

THANK YOU!

