

# Questions

## 1. How many total products are in the Products table?

```
SELECT *  
FROM products;
```

-9977 Rows, this will provide an overview of what I am working with.

## 2. Who are the top most diverse vendors (i.e. they have the highest number of distinct products)? How many different products do they have?

```
SELECT vendor_name, COUNT(DISTINCT item_no) AS amount_of_products  
FROM products  
GROUP BY vendor_name  
ORDER BY 2 DESC  
LIMIT 5
```

	vendor_name text	amount_of_products bigint
1	Jim Beam Brands	925
2	Diageo Americas	907
3	Pernod Ricard Usa/austin Nichols	599
4	Yahara Bay Distillers Inc	579
5	Heaven Hill Distilleries Inc.	388

## 3. Which products sell the best by total number of unit sales?

```
SELECT description, SUM(bottle_qty) AS total_sales  
FROM sales  
GROUP BY description  
ORDER BY total_sales DESC  
LIMIT 10
```

	description text	total_sales bigint
1	Black Velvet	1672344
2	Hawkeye Vodka	1192739
3	Captain Morgan Spiced Rum	766901
4	Fireball Cinnamon Whiskey	666062
5	Jack Daniels Old #7 Black Lbl	546234
6	Five O'clock	503006
7	Mccormick Vodka Pet	487426
8	Barton Vodka	450451
9	Smirnoff Vodka 80 Prf	425220
10	Crown Royal Canadian Whisky	376931

**4. Which products sell the best by total dollar value of sales?**

```
SELECT item, description, SUM(total) AS total_dollar_value
FROM sales
GROUP BY item, description
ORDER BY total_dollar_value DESC
LIMIT 5;
```

	item integer	description text	total_dollar_value numeric
1	11788	Black Velvet	12863376.81
2	43337	Captain Morgan Spiced Rum	8523370.55
3	26827	Jack Daniels Old #7 Black Lbl	6668863.94
4	11297	Crown Royal Canadian Whisky	6231299.41
5	36308	Hawkeye Vodka	5380753.20

**5. What are the top 10 categories of liquor sold based on the total amount of sales revenue?**

```
SELECT category_name, description, SUM(total) AS total_amt_sales
FROM sales
GROUP BY category_name, description
ORDER BY total_amt_sales DESC
LIMIT 10;
```

	category_name text	description text	total_amt_sales numeric
1	CANADIAN WHISKIES	Black Velvet	18315550.64
2	SPICED RUM	Captain Morgan Spiced Rum	13772752.25
3	TENNESSEE WHISKIES	Jack Daniels Old #7 Black Lbl	13701656.82
4	WHISKEY LIQUEUR	Fireball Cinnamon Whiskey	10622967.34
5	CANADIAN WHISKIES	Crown Royal Canadian Whisky	9714022.78
6	80 PROOF VODKA	Hawkeye Vodka	8730823.84
7	IMPORTED VODKA	Absolut Swedish Vodka 80 Prf	7431864.05
8	IMPORTED VODKA	Grey Goose Vodka	6444939.38
9	MISC. IMPORTED CORDIALS & LIQUEURS	Jagermeister Liqueur	6298430.40
10	STRAIGHT BOURBON WHISKIES	Jim Beam	5163920.19

**6. Which rum products have sales greater than \$10,000?**

```
SELECT category_name AS product_name, SUM(total) AS total_revenue
FROM sales
GROUP BY category_name
HAVING category_name ILIKE '%rum%' and SUM(total) > 10000
ORDER BY SUM(total) DESC
```

	product_name text	total_revenue numeric
1	SPICED RUM	31600618.50
2	PUERTO RICO & VIRGIN ISLANDS RUM	12729072.76
3	FLAVORED RUM	8029533.00
4	BARBADOS RUM	396024.49
5	JAMAICA RUM	371404.44

```

SELECT category_name, SUM(total)
FROM sales
GROUP BY category_name, description
HAVING description ILIKE '%whiskey%'
or description ILIKE '%vodka%'
AND SUM(total)>10000
ORDER BY sum(total) DESC
LIMIT 10;

```

	category_name text	sum numeric
1	WHISKEY LIQUEUR	10622967.34
2	80 PROOF VODKA	8730823.84
3	IMPORTED VODKA	7431864.05
4	IMPORTED VODKA	6444939.38
5	80 PROOF VODKA	4876655.59
6	BLENDED WHISKIES	4330957.37
7	80 PROOF VODKA	3236508.16
8	80 PROOF VODKA	3093016.65
9	FLAVORED VODKA	2547677.99
10	IMPORTED VODKA	2334630.05

## 7. Which county sold the most amount of vodka during February 2014?

```

SELECT county, description, MAX(bottle_qty), date(date)
FROM sales
WHERE description ILIKE '%vodka%' AND date BETWEEN '2014-02-01' AND
'2014-02-28'
GROUP BY county, description, date
ORDER BY MAX(bottle_qty) DESC
LIMIT 1;

```

	county text	description text	max integer	date date
1	Pottawattamie	UV Vodka PET	1800	2014-02-10

## 8. What is the trend of sales by month?

```
SELECT EXTRACT (year from date) AS year,
EXTRACT (month from date) AS month,
CASE
    WHEN btl_price < '$50' THEN 'cheap'
    WHEN btl_price BETWEEN '$51' AND '$200' THEN 'medium'
    ELSE 'expensive'
END AS price_rank,
COUNT(btl_price)
FROM sales
GROUP BY 1,2,3;
```

	year double precision	month double precision	price_rank text	count bigint
1	2014		1 cheap	313624
2	2014		1 expensive	240
3	2014		1 medium	1464
4	2014		2 cheap	297206
5	2014		2 expensive	290
6	2014		2 medium	1334
7	2014		3 cheap	317964
8	2014		3 expensive	244
9	2014		3 medium	1732
10	2014		4 cheap	350588
11	2014		4 expensive	230
12	2014		4 medium	1668
13	2014		5 cheap	327042
14	2014		5 expensive	236
15	2014		5 medium	1754

## 9. A. Which stores sell one of the top five most expensive bottles of alcohol?

```
SELECT btl_price, bottle_qty, total, sales.store, stores.name
FROM sales
JOIN stores ON sales.store= stores.store
ORDER BY btl_price DESC
LIMIT 5
```

	btl_price money	bottle_qty integer	total numeric (10,2)	store integer	name text
1	\$8,700.00	1	8700.00	2590	Hy-vee Food Store #5 / Cedar Rapids
2	\$8,700.00	1	8700.00	2588	Hy-Vee Food and Drug #6 / Cedar Rapi
3	\$2,398.80	2	4797.60	3385	Sam's Club 8162 / Cedar Rapids
4	\$2,398.80	1	2398.80	3494	Sam's Club 6514 / Waterloo
5	\$2,398.80	1	2398.80	3477	Sam's Club 6472 / Council Bluffs