

Terpbuy

Part I: SQL Queries

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Query #1

```
SELECT
    table_name AS 'Table Name',
    table_rows AS 'Number of Rows'
FROM
    information_schema.tables
WHERE
    information_schema.tables.TABLE_SCHEMA = 'terpbuy';
```

```
4 •   SELECT
5      -- Alias to 'Table Name' for better readability.
6      table_name AS 'Table Name',
7      -- Alias to 'Number of Rows' for better readability.
8      table_rows AS 'Number of Rows'
9  FROM
10     -- `information_schema.tables` table,
11     -- contains metadata about all the tables in the database.
12     information_schema.tables
13 WHERE
14     -- providing the database name to fetch
15     -- the table information from the schema.
16     information_schema.tables.TABLE_SCHEMA = 'terpbuy';
17 /* Viren Patel - 22/09/2023 */
18
```

Table Name	Number of Rows
category	51
customer	4487
department	12
order_line	4783
orders	2152
product	72

Query #2

```
SELECT
    p.product_name AS 'Product Name',
    p.product_price AS 'Product Price'
FROM
    terpbuy.product AS p
WHERE
    p.product_price > 100.00
ORDER BY p.product_price DESC;
```

```
24 • SELECT
25     p.product_name AS 'Product Name',
26     p.product_price AS 'Product Price'
27 FROM
28     terpbuy.product AS p
29 WHERE
30     -- Get the prices which are greater than $100.00.
31     p.product_price > 100.00
32 ORDER BY p.product_price DESC;
33 /* Viren Patel - 22/09/2023 */
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	Product Name	Product Price
▶	Dell Laptop	1500.00
	Lawn mower	532.58
	Porcelain crafts	461.48
	Web Camera	452.04
	Field & Stream Sportsman 16 Gun Fire Safe	399.98
	Childrens heaters	357.10
	Smart watch	327.75
	Diamondback Womens Serene Classic Comfort Bi	299.98
	First aid kit	293.04
	Rock music	260.65
	Industrial CONSUMER electronics	252.88
	Summer dresses	215.82
	Mens gala suit	210.85
	Pelican Sunstream 100 Kayak	199.99
	DVDs	164.38
	Nike Mens CJ Elite 2 TD Football Cleat	129.99

Query #3

(NOTE: code below is reformatted to fit in the page.)

```
SELECT
    c.first_name, c.last_name, c.city,
    c.segment, o.order_id, o.order_date
FROM
    terpbuy.customer AS c
INNER JOIN
    orders AS o ON c.customer_id = o.customer_id
WHERE
    c.state = 'FL';
```

```
41 •   SELECT
42      -- Selecting customers' first and last names, city, and segment.
43      c.first_name,
44      c.last_name,
45      c.city,
46      c.segment,
47      -- Selecting orders order_id, and order_date.
48      o.order_id,
49      o.order_date
50  FROM
51      -- setting customer table alias as c
52      terpbuy.customer AS c
53      -- joining the Orders table and customer table with column `customer_id`.
54      INNER JOIN orders AS o ON c.customer_id = o.customer_id
55  WHERE
56      -- Only show output where The state is florida.
57      c.state = 'FL';
58  /* Viren Patel - 22/09/2023 */
```

	first_name	last_name	city	segment	order_id	order_date
▶	Laura	Smith	Winter Park	CORPORATE	20366	2018-10-24
	Linda	Murray	Pompano Beach	CORPORATE	20428	2018-10-25
	Mary	Smith	Tallahassee	CORPORATE	20492	2018-10-26
	Mary	Morrison	Brandon	HOME_OFFICE	20745	2018-10-29
	Jose	Smith	Miami	CORPORATE	20877	2018-10-31
	Patricia	Smith	Fort Lauderdale	CORPORATE	21239	2018-11-06
	Mary	Harris	Miami	CORPORATE	21278	2018-11-06
	Mary	Weaver	Miami	CONSUMER	22082	2018-11-18
	Mary	Holmes	Pompano Beach	CONSUMER	22188	2018-11-19
	James	Trevino	Miami	CONSUMER	22219	2018-11-20
	Katherine	Rogers	Hollywood	CONSUMER	22337	2018-11-22
	Mary	Shah	Winter Park	HOME_OFFICE	22999	2018-12-01
	Mary	Smith	Hollywood	CONSUMER	23000	2018-12-01
	Michael	Holloway	Fort Lauderdale	HOME_OFFICE	23072	2018-12-02
	Rose	Case	Brandon	CONSUMER	23244	2018-12-05
	Mary	Smith	Hialeah	CORPORATE	23300	2018-12-06
	Mary	Smith	Miami	CORPORATE	23466	2018-12-08
	Raymond	Smith	Lutz	CONSUMER	23579	2018-12-10

Query #4

```
SELECT
    p.product_name, c.category_name,
    d.department_name, p.product_price
FROM
    product AS p
INNER JOIN
    category AS c ON p.category_id = c.category_id
INNER JOIN
    department AS d ON p.department_id = d.department_id
WHERE
    c.category_name IN ('Computers', 'Toys', 'Tennis & Racquet');
```

```
67 •   SELECT
68      p.product_name, c.category_name,
69      d.department_name, p.product_price
70  FROM
71      -- product table alias as p.
72      product AS p
73
74      -- Inner join the category and product table on column `category_id`.
75      -- category table aliased as c.
76      INNER JOIN category AS c ON p.category_id = c.category_id
77      -- Inner join the department and product table on column `department_id`.
78      INNER JOIN department AS d ON p.department_id = d.department_id
79  WHERE
80      -- get only the categories in the given list.
81      c.category_name IN ('Computers', 'Toys', 'Tennis & Racquet');
82  /* Viren Patel - 22/09/2023 */
```

Result Grid			
product_name	category_name	department_name	product_price
Nike Mens Comfort 2 Slide	Tennis & Racquet	Fitness	44.99
Dell Laptop	Computers	Technology	1500.00
Toys	Toys	Fan Shop	11.54

Query #5

```
SELECT
    p.product_name, c.category_name, d.department_name
FROM
    product AS p
INNER JOIN category AS c ON c.category_id = p.category_id
INNER JOIN department AS d ON d.department_id = p.department_id
WHERE
    p.product_id NOT IN (
        SELECT DISTINCT
            ol.product_id
        FROM
            order_line AS ol
    );
```

```
90 •   SELECT
91       p.product_name, c.category_name, d.department_name
92   FROM
93       product AS p
94   INNER JOIN category AS c ON c.category_id = p.category_id
95   INNER JOIN department AS d ON d.department_id = p.department_id
96   WHERE
97       p.product_id NOT IN (
98           SELECT DISTINCT
99               ol.product_id
100          FROM
101              order_line AS ol
102      );
103  /* Viren Patel - 22/09/2023 */
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
product_name	category_name	department_name	

Query #6

```
SELECT
    o.order_city, COUNT(o.order_id) AS 'Delayed Orders'
FROM
    orders AS o
WHERE
    o.actual_shipping_days > o.scheduled_shipping_days
GROUP BY o.order_city
ORDER BY `Delayed Orders` DESC;
```

```
110 •  SELECT
111      o.order_city, COUNT(o.order_id) AS 'Delayed Orders'
112  FROM
113      orders AS o
114 WHERE
115      o.actual_shipping_days > o.scheduled_shipping_days
116 GROUP BY o.order_city
117 ORDER BY `Delayed Orders` DESC;
118 /* Viren Patel - 22/09/2023 */
119
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	order_city	Delayed Orders		
▶	Bangalore	51		
	Mumbai	45		
	Pune	41		
	Delhi	37		
	Chennai	32		
	Surat	31		
	Visakhapatnam	30		
	Hyderabad	29		
	Gorakhpur	27		
	Ajmer	26		
	Agra	25		
	Kanpur	24		
	Jaipur	24		
	Aurangabad	21		
	Ludhiana	21		
	Raipur	20		

Query #7

```
SELECT
    c.segment AS 'Customer segment',
    COUNT(c.customer_id) AS 'Total Customers'
FROM
    customer AS c
GROUP BY c.segment
ORDER BY 'Total Customers' DESC;
```

126 • SELECT

```
127         c.segment AS 'Customer segment',
128         COUNT(c.customer_id) AS 'Total Customers'
129     FROM
130         customer AS c
131     GROUP BY c.segment
132     ORDER BY `Total Customers` DESC;
133     /* Viren Patel - 22/09/2023 */
```

134

<

Result Grid



Filter Rows:

Export:



Wrap Cell Content:



	Customer segment	Total Customers
▶	CONSUMER	2312
	CORPORATE	1312
	HOME_OFFICE	837

Query #8

```
SELECT
    COUNT(o.order_date) AS 'Total Orders In 1st Quarter 2021'
FROM
    orders AS o
WHERE
    YEAR(o.order_date) = '2021' AND QUARTER(o.order_date) = 1;
```

```
139 •   SELECT
140         COUNT(o.order_date) AS 'Total Orders In 1st Quarter 2021'
141     FROM
142         orders AS o
143     WHERE
144         -- YEAR function returns The year from the date.
145         -- QUARTER function returns quarters from the given year.
146         YEAR(o.order_date) = '2021' AND QUARTER(o.order_date) = 1;
147     /* Viren Patel - 22/09/2023 */
148
```

The screenshot shows a database query results grid. At the top, there are several buttons: 'Result Grid' (selected), 'Filter Rows' (with an input field), 'Export' (with icons for CSV and PDF), and 'Wrap Cell Content'. The results grid itself has two rows. The first row contains a single cell with the text 'Total Orders In 1st Quarter 2021'. The second row contains a single cell with the number '362'.

Total Orders In 1st Quarter 2021
362

Query #9

```
SELECT
    c.state
FROM
    customer AS c
GROUP BY c.state
HAVING
    COUNT(c.segment) > 1
ORDER BY c.state ASC;
```

```
151 •   SELECT
152       c.state
153   FROM
154       customer AS c
155   GROUP BY c.state
156   HAVING
157       COUNT(c.segment) > 1
158   ORDER BY c.state ASC;
159   /* Viren Patel - 22/09/2023 */
160
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	state			
▶	AR			
	AZ			
	CA			
	CO			
	CT			
	DC			
	DE			
	FL			
	GA			
	HI			
	IA			
	ID			
	IL			
	IN			
	KS			

Query #10

```
SELECT
    c.first_name AS 'First Name', c.last_name AS 'Last Name',
    c.street AS 'Street', c.city AS 'City',
    c.state AS 'State', c.zipcode AS 'Zip code'
FROM
    customer AS c
LEFT JOIN orders AS o ON o.customer_id = c.customer_id
WHERE
    c.segment = 'CORPORATE'
    AND o.customer_id IS NULL
ORDER BY `Last Name`, `First Name`;
```

```
167 • SELECT
168     c.first_name AS 'First Name', c.last_name AS 'Last Name',
169     c.street AS 'Street', c.city AS 'City',
170     c.state AS 'State', c.zipcode AS 'Zip code'
171     FROM
172         customer AS c
173         LEFT JOIN orders AS o ON o.customer_id = c.customer_id
174     WHERE
175         c.segment = 'CORPORATE'
176         AND o.customer_id IS NULL
177     ORDER BY `Last Name`, `First Name`;
178 /* Viren Patel - 22/09/2023 */
```

First Name	Last Name	Street	City	State	Zip code
BlueOneal		9279 Quaking Key	Caguas	PR	00725
Peter	Acosta	1761 Noble Barn Heath	Caguas	PR	00725
Eliana	Adams	7592 Heather Circuit	Detroit	MI	48221
Ryan	Adkins	1855 Silver Manor	East Brunswick	NJ	08816
Sarah	Adkins	2264 Silent Freeway	Salt Lake City	UT	84119
Ethan	Alexander	4155 Bright Deer Line	La Crosse	WI	54601
Gregory	Allen	1906 Amber Dale	Morristown	NJ	07960
Aphrodite	Alvarez	6179 Silver Alley	Caguas	PR	00725
Mary	Anderson	6395 Colonial Berry Ledge	Caguas	PR	00725
Samantha	Anderson	6715 Blue Run	San Jose	CA	95124
Mary	Andrews	2912 Hidden Acres	Laredo	TX	78040
Judy	Arnold	3836 Stony Point	Caguas	PR	00725
Reagan	Avila	8987 Foggy Hill	Wayne	NJ	07470
Kerry	Ayala	409 Tawny Range	Brooklyn	NY	11236
Kevyn	Ayala	5516 Lazy Oak Path	Caguas	PR	00725
Andrea	Baird	7415 Cotton Fox Corners	San Diego	CA	92126

Query #11

```
SELECT DISTINCT
    c.first_name AS 'First Name', c.last_name AS 'Last Name',
    c.street AS 'Street', c.city AS 'City',
    c.state AS 'State', c.zipcode AS 'Zip code',
    o.order_date AS 'Order date'
FROM
    order_line AS ol
INNER JOIN product AS p ON p.product_id = ol.product_id
INNER JOIN orders AS o ON o.order_id = ol.order_id
INNER JOIN customer AS c ON o.customer_id = c.customer_id
WHERE
    p.product_name = 'Nike Mens Free 5.0+ Running Shoe';
```

```
187 •   SELECT DISTINCT
188      c.first_name AS 'First Name', c.last_name AS 'Last Name',
189      c.street AS 'Street', c.city AS 'City',
190      c.state AS 'State', c.zipcode AS 'Zip code',
191      o.order_date AS 'Order date'
192  FROM
193      order_line AS ol
194      INNER JOIN product AS p ON p.product_id = ol.product_id
195      INNER JOIN orders AS o ON o.order_id = ol.order_id
196      INNER JOIN customer AS c ON o.customer_id = c.customer_id
197  WHERE
198      p.product_name = 'Nike Mens Free 5.0+ Running Shoe';
199  /* Viren Patel - 22/09/2023 */
200
```

<

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	First Name	Last Name	Street	City	State	Zip code	Order date
▶	Mary	Reynolds	4823 Broad Route	Oregon City	OR	97045	2018-10-23
	Mary	Smith	3385 Cotton Wharf	Santa Clara	CA	95051	2018-10-24
	Wayne	Hardy	4132 Broad Gate Lane	Mesquite	TX	75150	2018-10-24
	Nicholas	Smith	603 Green Sky Promenade	Marrero	LA	70072	2018-10-24
	Louis	Bishop	5192 Foggy Elk Village	Caguas	PR	00725	2018-10-24
	Jonathan	Costa	849 Noble Apple Private	Panorama City	CA	91402	2018-10-25
	Mary	Smith	5340 Quaking Panda Forest	Tallahassee	FL	32308	2018-10-26
	Mary	Lloyd	6035 Foggy Link	Caguas	PR	00725	2018-10-26
	Justin	Smith	338 Heather Orchard	Phoenix	AZ	85029	2018-10-29
	Virginia	Sanders	1801 Jagged Dale Park	Austin	TX	78704	2018-10-30
	Robert	Smith	1987 Indian Autumn Swale	Greeley	CO	80631	2018-10-31
	Dorothy	Hudson	4992 Jagged Forest Subdi...	Chicago	IL	60613	2018-10-31

Query #12

```
SELECT
    c.first_name,
    c.last_name,
    AVG(ol.total_price)
FROM
    order_line AS ol
        INNER JOIN orders AS o ON o.order_id = ol.order_id
        INNER JOIN customer AS c ON c.customer_id = o.customer_id
WHERE
    ol.total_price > (
        SELECT
            AVG(ol.total_price)
        FROM
            order_line AS ol
    )
GROUP BY c.customer_id;
```

```
205 •  SELECT
206      c.first_name,
207      c.last_name,
208      AVG(ol.total_price)
209  FROM
210      order_line AS ol
211      INNER JOIN orders AS o ON o.order_id = ol.order_id
212      INNER JOIN customer AS c ON c.customer_id = o.customer_id
213  WHERE
214      ol.total_price > (
215          SELECT
216              AVG(ol.total_price)
217          FROM
218              order_line AS ol
219      )
220  GROUP BY c.customer_id;
221  /* Viren Patel - 22/09/2023 */
222
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

	first_name	last_name	AVG(ol.total_price)
▶	Phillip	Mcgee	399.980000
	Mary	Reynolds	319.960000
	Mary	Smith	399.980000
	Mary	Hill	349.980000
	Wayne	Hardy	499.950000
	Nicholas	Smith	299.975000
	Louis	Bishop	399.980000
	James	Smith	374.980000
	Mary	Smith	274.940000
	Mary	Armstrong	239.960000
	Jonathan	Costa	399.980000
	Mary	Smith	349.970000