

1. By finding the total price ( $\text{unit\_price} \times \text{quantity}$ ) and discounted total prices ( $\text{unit\_price} \times \text{quantity} \times (1 - \text{discount})$ ) of the products, search for the top 10 when you sort them from high to low based on the discounted price calculation.

	orderid smallint	totalprice double precision	totalwithdiscountprice double precision
1	10981	15810	15810
2	10865	15810	15019.499988220632
3	10417	10540.00015258789	10540.00015258789
4	10889	10540	10540
5	10897	9903.200073242188	9903.200073242188
6	10353	10540.00015258789	8432.000090658665
7	10424	10329.200149536133	8263.360088845491
8	10540	7905	7905
9	10817	7905	7905
10	10816	7905	7509.749994110316

Figure 4. Question-1 Output

2. Query the total price of the products whose shipped\_date value is between 1997-12-30 and 1998-1-5, and the data whose shipped\_date value is null and the total price is greater than 4000.

	shippeddate date	order_id [PK] smallint	totalprice double precision	year numeric
1	1997-12-31	10789	3687.000045776367	1997
2	1997-12-31	10792	399.8499994277954	1997
3	1997-12-31	10801	4035.800018310547	1997
4	1998-01-01	10791	1926.0600051879883	1998
5	1998-01-02	10771	344	1998
6	1998-01-02	10794	393.4499988555908	1998
7	1998-01-02	10802	3923.7499809265137	1998
8	1998-01-05	10797	420	1998
9	1998-01-05	10798	446.59999084472656	1998
10	1998-01-05	10799	1585	1998
11	1998-01-05	10800	1632.149998664856	1998
12	1998-01-05	10806	572.0999984741211	1998
13	[null]	11008	4903.499893188477	[null]
14	[null]	11072	5217.999984741211	[null]

3. Query the data whose discontinued value is "0" and whose reorder\_level value is higher than 20 and units\_on\_order value is 0.

	category_name character varying (15)	category_id smallint	product_name character varying (40)	product_id smallint	unit_price real	units_in_stock smallint	units_on_order smallint	reorder_level smallint	discontinued integer
1	Seafood	8	Boston Crab Meat	40	18.4	123	0	30	0
2	Grains/Cereals	5	Filo Mix	52	7	38	0	25	0
3	Condiments	2	Grandma's Boysenberry Spread	6	25	120	0	25	0
4	Grains/Cereals	5	Gustaf's Knäckebröd	22	21	104	0	25	0
5	Confections	3	NuNuCa Nuß-Nougat-Creme	25	14	76	0	30	0
6	Beverages	1	Rhönbräu Klosterbier	75	7.75	125	0	25	0
7	Confections	3	Schoggi Schokolade	27	43.9	49	0	30	0
8	Condiments	2	Sirop d'érable	61	28.5	113	0	25	0
9	Grains/Cereals	5	Tunnbröd	23	9	61	0	25	0
10	Confections	3	Valkoinen suklaa	50	16.25	65	0	30	0

4. In the specified columns, query the data that ends with "y" for Ship\_country, starts with "M" for customer\_id, and whose freight value is greater than 70.

	ship_name character varying (40)	ship_country character varying (15)	customer_id character	company_name character varying (40)	salesperson text	phone character varying (24)	product_id smallint	product_name character varying (40)	freight real
1	Magazzini Alimentari Riuniti	Italy	MAGAA	Magazzini Alimentari Riuniti	Andrew Fuller	(503) 555-3199	2	Chang	76.33
2	Magazzini Alimentari Riuniti	Italy	MAGAA	Magazzini Alimentari Riuniti	Andrew Fuller	(503) 555-3199	67	Laughing Lumberjack Lager	76.33
3	Magazzini Alimentari Riuniti	Italy	MAGAA	Magazzini Alimentari Riuniti	Andrew Fuller	(503) 555-9831	26	Gumbär Gummibärchen	155.97
4	Magazzini Alimentari Riuniti	Italy	MAGAA	Magazzini Alimentari Riuniti	Andrew Fuller	(503) 555-9831	42	Singaporean Hokkien Fried Mee	155.97
5	Magazzini Alimentari Riuniti	Italy	MAGAA	Magazzini Alimentari Riuniti	Andrew Fuller	(503) 555-9831	49	Maxilaku	155.97
6	Magazzini Alimentari Riuniti	Italy	MAGAA	Magazzini Alimentari Riuniti	Margaret Peacock	(503) 555-9931	36	Inlagd Sill	70.09
7	Magazzini Alimentari Riuniti	Italy	MAGAA	Magazzini Alimentari Riuniti	Margaret Peacock	(503) 555-9931	39	Chartreuse verte	70.09
8	Magazzini Alimentari Riuniti	Italy	MAGAA	Magazzini Alimentari Riuniti	Margaret Peacock	(503) 555-9931	72	Mozzarella di Giovanni	70.09
9	Morgenstern Gesundkost	Germany	MORGK	Morgenstern Gesundkost	Andrew Fuller	(503) 555-9931	28	Rössle Sauerkraut	125.77
10	Morgenstern Gesundkost	Germany	MORGK	Morgenstern Gesundkost	Andrew Fuller	(503) 555-9931	62	Tarte au sucre	125.77
11	Morgenstern Gesundkost	Germany	MORGK	Morgenstern Gesundkost	Steven Buchanan	(503) 555-9831	59	Raclette Courdavault	127.34
12	Morgenstern Gesundkost	Germany	MORGK	Morgenstern Gesundkost	Steven Buchanan	(503) 555-9831	63	Vegie-spread	127.34
13	Morgenstern Gesundkost	Germany	MORGK	Morgenstern Gesundkost	Steven Buchanan	(503) 555-9831	72	Mozzarella di Giovanni	127.34
14	Morgenstern Gesundkost	Germany	MORGK	Morgenstern Gesundkost	Steven Buchanan	(503) 555-9831	76	Lakkalikööri	127.34

5. Write a query that calculates the total discounted price of all products by years (if there is no product, the value "0" will be written) and shows them by creating columns according to the years, with product\_id less than 5 and customer\_id starting with "E".

	product_id smallint	customer_id character	year numeric	Year 1999 double precision	Year 1998 double precision	Year 1997 double precision	Year 1996 double precision
1	2	ERNSH	1996	0	0	0	607.9999990105629
2	3	ERNSH	1997	0	0	179.99999970197678	0
3	4	EASTC	1997	0	0	550	0
4	1	EASTC	1998	0	337.5	0	0
5	2	ERNSH	1998	0	152	0	0
6	3	ERNSH	1998	0	250	0	0

6. Combine the Customers and Suppliers tables and query the data containing the letter "w" in the contact\_name in the costumer table and the letter "g" in the suppliers contact\_name.

	<b>tablename</b> text	<b>city</b> character varying (15)	<b>company_name</b> character varying (40)	<b>contact_name</b> character varying (30)
1	Customers	Lander	Split Rail Beer & Ale	Art Braunschweiger
2	Customers	Bruxelles	Maison Dewey	Catherine Dewey
3	Customers	London	Consolidated Holdings	Elizabeth Brown
4	Customers	Eugene	Great Lakes Food Market	Howard Snyder
5	Suppliers	Melbourne	Pavlova, Ltd.	Ian Devling
6	Suppliers	Ann Arbor	Grandma Kelly's Homestead	Regina Murphy
7	Customers	London	North/South	Simon Crowther
8	Customers	London	B's Beverages	Victoria Ashworth
9	Suppliers	Tokyo	Tokyo Traders	Yoshi Nagase
10	Customers	Warszawa	Wolski Zajazd	Zbyszek Piestrzeniewicz

7. Show the first 5 products with the highest unit\_price value and the first 5 products with the lowest, in order by unit\_price.

	<b>products_name</b> character varying (40)	<b>unit_price</b> real
1	Côte de Blaye	263.5
2	Thüringer Rostbratwurst	123.79
3	Mishi Kobe Niku	97
4	Sir Rodney's Marmalade	81
5	Carnarvon Tigers	62.5
6	Tourtière	7.45
7	Filo Mix	7
8	Konbu	6
9	Guaraná Fantástica	4.5
10	Geitost	2.5

8. Query to sum of the sales made since June-1997 on a yearly basis according to the category\_name. (Set to write two digits after the dot.)

	shippedyear numeric	category_name character varying (15)	categorysales numeric
1	1997	Seafood	48821.32
2	1997	Produce	33730.58
3	1997	Condiments	32866.50
4	1997	Meat/Poultry	50011.76
5	1997	Confections	44025.07
6	1997	Grains/Cereals	35115.07
7	1997	Beverages	51266.31
8	1997	Dairy Products	73735.16
9	1998	Seafood	45759.98
10	1998	Confections	56520.39
11	1998	Produce	27959.65
12	1998	Grains/Cereals	25610.84
13	1998	Condiments	32014.83
14	1998	Meat/Poultry	56176.30
15	1998	Dairy Products	79490.02
16	1998	Beverages	114160.17