

## BWT Task-03 Exercise

**Submitted By: ABRAR SAEED**

### **Q1**

**Write a query to fetch all customer names and sort them alphabetically. (Topic Sorting)**

DBeaver 24.1.0 - <postgres> Script-1

File Edit Navigate Search SQL Editor Database Window Help

Database Navigator X Projects

Enter a part of object name here

postgres

- Schemas
- public
  - Tables
    - categories 216K
    - cities 184K
    - customers 192K
    - items 208K
    - orders 192K
    - products 192K
    - suppliers 200K
  - Foreign Tables
  - Views
  - Materialized Views
  - Indexes
  - Functions
  - Sequences
  - Data types
  - Aggregate functions

SQL Editor

```
SELECT name
FROM customers
ORDER BY name;
```

customers 1 X

```
SELECT name FROM customers ORDER BY name;
```

Grid

	name
1	Aaron Hayes
2	Aaron Jones
3	Aaron Schwartz
4	Abigail Reed
5	Adam David
6	Adam Johns
7	Adam Martinez

Text

Record

Refresh Save Cancel

1000 row(s) fetched - 0.004s, on 2024-06-28 at 20:08:35

Database Tasks - General X

Tasks: type a part of task name here

Name	Last Run (System time)	Last Result	Type
------	------------------------	-------------	------

Task executions: type a part of error message

System time	Duration	Result
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\*<postgres> Script-1 X categories

```
SELECT name
FROM customers
ORDER BY name;
```

	name
1	Aaron Hayes
2	Aaron Jones
3	Aaron Schwartz
4	Abigail Reed
5	Adam David
6	Adam Johns
7	Adam Martinez
8	Alan Massey
9	Alex Smith
10	Alexander Chen
11	Alexandra Wheeler
12	Alexandra Wright

	abc name	
991	William Carter	
992	William Moore	
993	William Moss	
994	William Wilson DDS	
995	William Wood	
996	Yolanda King	
997	Yolanda Torres	
998	Yvette Baker	
999	Zachary Haynes	
1000	Zachary Martinez	

## Q2

Write a query to fetch all product names and their prices, sorted by price from low to high.  
(Topic Sorting)

```
SELECT name, price
FROM products
ORDER BY price;
```

products 1 ×		
SELECT name, price FROM products		
	abc name	123 price
Grid		
1	deal	11.1
2	interview	12.37
3	step	12.72
4	especially	12.74
5	game	12.78
6	level	13.59
7	include	13.75
8	their	16.27
9	build	17.25
10	behavior	18.83

products 1 ×

SELECT name, price FROM products OI

	name	price
993	nice	496.7
994	property	497.71
995	apply	497.92
996	market	497.98
997	wonder	498.47
998	report	498.55
999	trouble	498.56
1000	performance	498.59

### Q3

Write a query to fetch supplier names that start with the letter 'A' and sort them by their names. (Topic Sorting with Operators and Wildcards)

```
SELECT name
FROM suppliers
WHERE name LIKE 'A%'
ORDER BY name;
```

suppliers 1 ×

SELECT name FROM suppliers WHERE Enter a SQL expr

	name
1	Acosta-Freeman
2	Adams-Roberts
3	Adams-Schwartz
4	Adams, Hull and Wise
5	Adams, Rojas and Morgan
6	Adkins and Sons
7	Aguilar-Carter

suppliers 1 ×

SELECT name FROM suppliers WHERE *Enter a SQL expression to filter results (use Ctrl+Space)*

	name
41	Arroyo-Kelly
42	Austin-Joseph
43	Austin LLC
44	Avery-Warren
45	Avery, Perez and Blair
46	Ayala PLC

Refresh Save Cancel Export

46 row(s) fetched - 0.000s, on 2024-06-28 at 20:43:28

Q4

Write a query to fetch all items and sort them by their status, placing NULL values first.

items 1 ×

SELECT \* FROM items ORDER BY status IS NULL, status;

	item_id	order_id	product_id	amount	status	item_timestamp
1	55d21c57-d8a7-4c8e-96f1-af1...	6f66a611-407a-4851-b699-4ce...	d03892f1-f8f3-44fc-bb86-e431	14.31	Delivered	2024-03-09 06:47:37.275443
2	8a2c9420-43b5-4b51-91aa-1fc...	7ea54b60-64d2-4583-96df-bf4...	5a49b5e1-a14d-4a84-b131-4b...	32.95	Delivered	2024-04-18 05:24:22.285073
3	72af47e3-9998-420a-86ed-56c...	dded01dc-20a1-42ff-a286-712...	7217ab96-f866-4c74-b9ae-9c3...	86.44	Delivered	2024-03-31 20:51:49.228488
4	4b5a19b1-64be-41d7-ae74-a2f...	b5e30740-1585-4ea6-9c99-cd6...	f8366f6b-ecf1-4e75-935d-ab91	8.1	Delivered	2024-01-16 03:30:29.394309
5	0bdb0f27-6bf6-4e0c-9b49-9fe...	411c82eb-100e-48fc-8095-befe...	e6d06da3-c252-4117-9a45-6c6...	56.5	Delivered	2024-04-19 16:04:29.456686
6	e7df11b8-2943-4e28-9168-12e...	1170d4f6-9a0f-4de6-b0e5-f671...	9ff2250b-0845-41a1-9ee4-b2b...	77.22	Delivered	2024-04-11 04:17:19.372846
7	03f57e54-db61-4fbd-b59a-8d5...	160a6358-7348-4e75-89dc-a37...	3bc16381-bd29-4b7f-8366-3ec...	51.07	Delivered	2024-06-01 14:44:57.709625
8	72f7d19f-5c38-473f-a712-ad35...	ce967796-9486-406e-9955-6c5...	dd9a1016-b858-4245-a173-dc...	55.03	Delivered	2024-04-05 13:47:09.495484
9	5932d11f-c4f2-4905-9ac5-bbf...	b12b51a7-2e8e-4aab-b272-9b...	4de9f1be-dfeb-4100-9463-566...	75.21	Delivered	2024-03-26 23:18:04.295651
10	b0c67098-34ab-4a75-9664-86f...	ab921bf1-dd01-4287-8577-57...	c7ba5802-ae48-4931-9aa4-8fc...	58.71	Delivered	2024-05-21 13:16:36.834831
11	6766f4f0-82a6-420a-f072-a78...	156aaffa2-e7a8-af40-a2a6-7...	f152fa7d-a874-a431-b0a6-30...	47.03	Delivered	2024-05-12 08:21:38.249196

Refresh Save Cancel Export data 200 1,000 1000 row(s) fetched - 0.007s (0.001s fetch), on 2024-06-28 at 20:46:03

Database Tasks - General ×

items 1 ×

SELECT \* FROM items ORDER BY status;

	item_id	order_id	product_id	amount	status	item_timestamp
992	cdb3042e-cc60-4e64-94dd-ddf...	79a434f8-20e1-4f5c-b5fe-bca5...	699374a8-b6c9-4fab-b8cb-31c...	32.65	Shipped	2024-01-27 20:04:11.667290
993	973be5b5-f6b2-4e63-85ae-78c...	3cdc1d49-6133-459e-8ff6-3d7...	cec16ea8-1293-4c35-85ef-8963	79.81	Shipped	2024-01-31 16:51:17.451772
994	000c19ce-1ffc-4f29-ba74-97f4...	c739e5b1-b331-416c-9658-dec...	11eb28b0-9ca7-4cc7-a662-268...	17.48	Shipped	2024-04-09 07:54:32.129819
995	549ef112-4ac1-4ddb-ae5-687c...	20a5d0bc-0165-4273-8d00-9c1...	7b6e6e77-e168-45b4-98a9-35c...	56.35	Shipped	2024-05-18 11:58:18.927054
996	5c0f9f89-1c94-44e6-b67f-bccf...	4c125d6e-1dea-4c04-9440-a57...	68a13a29-8997-48ff-bb49-60a...	30.93	Shipped	2024-01-23 08:27:33.071517
997	2bae7ea7-7bfd-4bc5-a459-6ed...	a0aec782-0cbb-4fb8-a134-9d2...	458a38a0-176c-4f38-a485-dc7...	97.48	Shipped	2024-02-17 20:17:39.072032
998	1d1611b4-cb25-4572-9061-3a...	296d0f28-3dd6-4c4e-b0c9-5a9...	ae2b19b3-191c-47e6-8e9c-733...	10.98	Shipped	2024-03-19 00:41:01.210661
999	8ee31a08-50cf-42d7-9b17-a90...	3e23bd7b-6359-496f-b903-02c...	d03411e4-ecb6-4b6b-ac7e-9e5...	34.92	Shipped	2024-05-18 06:49:00.569997
1000	9a2e0203-0571-4872-bb64-1ef...	d1df9132-0adf-4556-af3f-384e...	cec16ea8-1293-4c35-85ef-8963	60.21	Shipped	2024-01-10 06:07:40.393991

Refresh Save Cancel Export data 200 1,000 1000 row(s) fetched - 0.007s (0.001s fetch), on 2024-06-28 at 20:46:03

## Q5

Write a query to fetch all products, sort them first by category and then by price in descending order.

```
SELECT *
FROM products
ORDER BY category, price DESC;
```

The screenshot shows a SQL query editor with the following query:

```
SELECT * FROM products ORDER BY category, price DESC;
```

The query is executed, and the results are displayed in a table with the following columns: product\_id, name, supplier\_id, category, price, stock\_available, status, and product\_createtimestamp. The results are sorted by category and then by price in descending order.

product_id	name	supplier_id	category	price	stock_available	status	product_createtimestamp
12ea3377-cca5-4965-a41c-9a3099	of	3f89d404-d78f-4aca-8c67-ee4e434 a		302.68	979	InActive	13:42.3
494c69e7-db73-42fd-9eef-788082	offer	01abe709-0567-47dc-ae92-3b077c	able	385.18	137	Active	42:25.9
b8adc046-eef0-4f58-9c7a-7c6f58a	share	6252ec97-c226-4c94-8b70-7ce164	able	76.71	283	InActive	36:47.8
a63e349b-fb6e-4222-aca0-507960	wide	16157d6a-f40a-4140-b233-c8e5e8	about	398.27	851	Out of Stock	12:55.3
e61f1dad-1ec7-4114-aaf5-7a449f9	factor	c9a89c46-4f89-4cc4-a804-be28738	about	91.72	974	Out of Stock	51:01.2
2d61572a-ad68-4eb9-a327-cbde17	middle	f292cfe7-c77d-4dd4-8b75-b5eb72	above	337.62	812	InActive	14:07.9
e37e126c-f0d4-4b67-8efc-5d4226e	door	7b539636-fcdb-4749-9e31-f9e38c	above	281.2	275	InActive	40:26.1

The screenshot also shows a second query editor with the following query:

```
SELECT * FROM products ORDER BY category, price DESC;
```

The query is executed, and the results are displayed in a table with the following columns: product\_id, name, supplier\_id, category, price, stock\_available, status, and product\_createtimestamp. The results are sorted by category and then by price in descending order.

product_id	name	supplier_id	category	price	stock_available	status	product_createtimestamp
9e595f05-7947-485b-8256-22a212	yet	7cf51b9a-7c71-44c1-93d1-b6c4a2	yeah	280.63	327	InActive	24:02.6
63b72960-b4e5-4f26-acaa-9e1eab	number	46937336-1d26-4b41-ba08-7e993	yes	66.04	357	Out of Stock	59:30.8
9e30a085-f969-401b-8f03-13eb92	yes	08e2b063-f6fa-4ab1-90c9-e384fa1	your	145.65	391	InActive	30:40.4
69742e0a-b030-4db8-afe2-da951b	his	063f7075-f3c0-4408-8410-e1e955f	your	83.21	563	Out of Stock	03:18.4
42197397-eeb8-4e4d-a2de-8b6b2	else	dfa51812-0525-4e46-97c1-5af12c2	yourself	393.01	252	InActive	42:16.1
42be18ee-8c61-45ec-958a-2f0b99	color	af08f764-b4c0-4148-a4d2-9e1caf8	yourself	306.76	375	Out of Stock	10:32.4

## Q6

Write a query to fetch all customer names and phone numbers, but sort them by the last four digits of their phone numbers in ascending order. (Hint use sorting with substrings)

```
SELECT name, phone
FROM customers
ORDER BY SUBSTRING(phone FROM LENGTH(phone) - 3) ASC;
```

The screenshot shows a SQL query editor with the following query:

```
SELECT name, phone
FROM customers
ORDER BY SUBSTRING(phone FROM LENGTH(phone) - 3) ASC;
```

customers 1 ×

SELECT name, phone FROM customers ORDER BY *Enter a SQL exp*

	name	phone
1	Elizabeth Lin	001-965-883-8361x0012
2	Ashley Cobb	001-587-449-0043
3	Erin Ward	+1-640-549-0044
4	Erin Miller	4327710045
5	Samuel Maddox	495-356-2786x0046
6	Sierra Johnson	(767)912-4013x0051
7	Andrew Jones	(209)855-8805x0073

customers 1 ×

SELECT name, phone FROM customers ORDER BY *Enter a SQL*

	name	phone
995	Kelsey Cooper	875-803-3674x979
996	Steven Dodson	+1-841-485-9357x980
997	Susan Wolf	418.894.8692x985
998	Jesse Coffey	+1-493-610-0792x985
999	Parker Coleman	+1-756-226-4150x988
1000	Antonio Wagner	+1-881-561-8744x998

Refresh Save Cancel