

**BWT**  
**DATA ENGINEERING**  
**ABDUL BASIT**

**TASK#4**

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

**QUERY:**

SELECT name

FROM customers

ORDER BY name ASC;

**OUTPUT:**



The screenshot shows a database interface with a 'Data Output' tab. It displays a table with one column named 'name' of type 'character varying'. The table contains 14 rows of customer names, sorted alphabetically. The status bar at the bottom indicates 'Total rows: 1000 of 1000' and 'Query complete 00:00:00.113'.

	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
13	Alexis Cohen
14	Alexis Matthews

Total rows: 1000 of 1000    Query complete 00:00:00.113    Ln 3, Col 19

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

**QUERY:**

SELECT name, price

FROM products

ORDER BY price ASC;

## OUTPUT:



The screenshot shows a database query output window with tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, displaying a table with 14 rows and 2 columns: 'name' (character varying) and 'price' (double precision). The data is as follows:

	name	price
	deal	11.1
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
11	finally	19.06
12	collection	19.74
13	test	20.29
14	bit	20.81

Total rows: 1000 of 1000    Query complete 00:00:00.075    Ln 3, Col 20

3. 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)

## QUERY:


SELECT name

FROM suppliers

WHERE name ILIKE 'A%'

ORDER BY name ASC;

## OUTPUT:



The screenshot shows a database query output window with tabs for 'Data Output', 'Messages', and 'Notifications'. The 'Data Output' tab is active, displaying a table with 13 rows and 1 column: 'name' (character varying). The data is as follows:

	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
8	Aguilar Ltd
9	Aguirre, Taylor and Gregory
10	Alexander and Sons
11	Alexander, Day and Ortiz
12	Allen-Hicks
13	Allen-Hunt

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

## QUERY:

SELECT \*

FROM items

ORDER BY status NULLS FIRST;

## OUTPUT:

Data Output Messages Notifications					
SQL					
	item_id [PK] uuid	order_id [PK] uuid	product_id [PK] uuid	amount [PK] double precision	status [PK] character varying
1	55d21c57-d8a7-4c8e-96f1-af1c3db13160	6f66a611-407a-4851-b699-4ce8d8d095...	d03892f1-f8f3-44fc-bb86-e431717e4b6f	14.31	Delivered
2	8a2c9420-43b5-4b51-91aa-1fcae29b7811	7ea54b60-64d2-4583-96df-bf4ef031da...	5a49b5e1-a14d-4a84-b131-4b2de86b63...	32.95	Delivered
3	72af47e3-9998-420a-86ed-56c01cb9bd81	ddee01dc-20a1-42ff-a286-7124267ad0...	7217ab96-f866-4c74-b9ae-9c3eaf767ab4	86.44	Delivered
4	4b5a19b1-64be-41d7-ae74-a2543ca734e4	b5e30740-1585-4ea6-9c99-cd6a7877f4...	f8366f6b-ecf1-4e75-935d-ab91137c2933	8.1	Delivered
5	0bdb0f27-6bf6-4e0c-9b49-9fee26a36b60	411c82eb-100e-48fc-8095-befe7791b6f6	e6d06da3-c252-4117-9a45-6c6511aa71...	56.5	Delivered
6	e7df11b8-2943-4e28-9168-12e136a1ada0	1170d4f6-9a0f-4de6-b0e5-f671870a49...	9ff2250b-0845-41a1-9ee4-b2bf5cc50bb	77.22	Delivered
7	03f57e54-db61-4fbd-b59a-8d5d45baa180	160a6358-7348-4e75-89dc-a37a8caf60...	3bc16381-bd29-4b7f-8366-3ecf707883f8	51.07	Delivered
8	72f7d19f-5c38-473f-a712-ad354c8a89bc	ce967796-9486-406e-9955-6c53442a8...	dd9a1016-b858-4245-a173-dc99ea0f63...	55.03	Delivered
9	5932d11f-c4f2-4905-9ac5-bbf4123b10c7	b12b51a7-2e8e-4aab-b272-9ba4fdc80d...	4de9f1be-dfeb-4100-9463-566d527f4784	75.21	Delivered
10	b0c67098-34ab-4a75-9664-86f384179dd7	ab921bf1-dd01-4287-8577-57a72c45ef...	c7ba5802-ae48-4931-9aa4-8fc8714392...	58.71	Delivered
11	6769f460-83a6-420e-b022-a785247614dd	156afbe2-e7e8-4f40-a2e5-7c133478be...	f152fa7d-e8c4-4d31-b0ae-30c60e457632	47.03	Delivered

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

## QUERY:

SELECT \*

FROM products

ORDER BY category ASC, price DESC;

## OUTPUT:

Data Output Messages Notifications						
	product_id [PK] uuid	name [PK] character varying	supplier_id [PK] uuid	category [PK] character varying	price [PK] double precision	stock_availabi [PK] integer
1	12ea3377-cca5-4965-a41c-9a30998310...	of	3f89d404-d78f-4aca-8c67-ee4e434674d5	a	302.68	
2	494c69e7-db73-42fd-9eef-7880822585a5	offer	01abe709-0567-47dc-ae92-3b077c44b8...	able	385.18	
3	b8adc046-eef0-4f58-9c7a-7c6f58a2d628	share	6252ec97-c226-4c94-8b70-7ce1642719...	able	76.71	
4	a63e349b-fb6e-4222-aca0-5079603843bf	wide	16157d6a-f40a-4140-b233-c8e5e8542b...	about	398.27	
5	e61f1dad-1ec7-4114-aaf5-7a449f91c7b4	factor	c9a89c46-4f89-4cc4-a804-be28738fc04b	about	91.72	
6	2d61572a-ad68-4eb9-a327-cbde171ce7...	middle	f292cfe7-c77d-4dd4-8b75-b5eb72f08ece	above	337.62	
7	e37e126c-f0d4-4b67-8efc-5d4226a23a18	door	7b539636-fcdb-4749-9e31-f9e38c83cec8	above	281.2	
8	dad2a61c-41d1-49ea-96b1-6c78daa687...	Congress	c2721d21-27ef-474c-82a6-5dcf1e3b6fcd	above	93.24	
9	ef209ab5-5443-4496-8669-8021d28b88...	yeah	2ae9ab92-e46f-4c86-b155-cc020004c8...	accept	88.18	
10	02859d26-c373-4a56-b134-167e3a2eb1...	realize	ff7cfc2e-76e3-41c0-823b-03e170fa871b	according	467.76	
11	599cc57f-d7fe-42a0-ac9e-5ae3e63fafad	receive	f43c5d9a-131b-4642-87b0-7f747c4c42...	act	160.51	
12	3e16d6b5-51c8-46fb-9d5b-09608cd14ef7	religious	b69b3fa3-eace-4684-9bc1-d5650906edf2	actually	49.53	
13	63afaf1f-bdad-43e6-b8a3-93c6da75b63f	yourself	1cd64701-9a4b-416c-a63d-e14456548c...	address	392.14	

6. 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)

## QUERY:

SELECT name, phone

FROM customers

ORDER BY substring(phone from '-4'::text) ASC;

## OUTPUT:

Data Output Messages Notifications		
	name character varying	phone [PK] character varying
1	Rachel Anderson	(200)448-7110x13384
2	Michael Garcia	(208)525-7254
3	Andrew Jones	(209)855-8805x0073
4	Cheryl Potter	(210)846-3927
5	Robert Beck	(216)668-7359x376
6	Terry Kelly	(217)946-2748x9429
7	Cynthia Jackson	(221)782-0158x5737
8	Antonio Walker	(222)836-3565
9	Leah Guzman	(224)763-4132
10	Tammy Bradley	(224)967-2171x3223
11	Margaret Spencer	(235)890-4940
12	Marilyn Ali	(237)201-4769x553
13	Terry Sawyer	(238)904-5937x870
14	Charles Miller	(240)565-3571
Total rows: 1000 of 1000		Query complete 00:00:00.078 Ln 3, Col 22