

# BookCore Insights Using SQL

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## Aim:

To analyze an online bookstore database using SQL by working with three tables Books, Customers, and Orders, in order to extract meaningful business insights.

**Table 1: Books**

Book_ID	Title	Author	Genre	Published_Year	Price	Stock
1	Configurable modular throughput	Joseph Crane	Biography	1949	21.34	100
2	Persevering reciprocal knowledge user	Mario Moore	Fantasy	1971	35.8	19
3	Streamlined coherent initiative	Derrick Howard	Non-Fiction	1913	15.75	27
4	Customizable 24hour product	Christopher Andrews	Fiction	2020	43.52	8
5	Adaptive 5thgeneration encoding	Juan Miller	Fantasy	1956	10.95	16
6	Advanced encompassing implementation	Bryan Morgan	Biography	1985	6.56	2
7	Open-architected exuding structure	Jacqueline Young	Romance	1927	43.63	95
8	Persistent local encoding	Troy Cox	Science Fiction	2019	48.99	84
9	Optimized interactive challenge	Colin Buckley	Fantasy	1987	14.33	70
10	Ergonomic national hub	Samantha Ruiz	Mystery	2015	24.63	25
11	Secured zero tolerance time-frame	Denise Barnes	Fantasy	1998	35.95	10
12	Polarized optimal array	Destiny Scott	Non-Fiction	1989	27.43	63
13	Adaptive 5thgeneration orchestration	Jaclyn Miller	Romance	1913	14.04	99
14	Re-engineered demand-driven parallelism	Jeremy Hayes	Science Fiction	1933	6.04	95
15	User-friendly motivating strategy	Keith Smith	Non-Fiction	1997	23.83	58
16	Vision-oriented tangible project	Christopher Price	Mystery	1941	10.07	8
17	Reduced secondary core	Benjamin Peters	Fantasy	1966	5.37	45
18	Adaptive 4thgeneration concept	Hector Palmer	Non-Fiction	2021	39.47	32
19	Progressive asymmetric Internet solution	Sean Miller	Science Fiction	1990	11.31	1
20	Face-to-face systematic throughput	Teresa Brennan	Non-Fiction	1978	48.13	64
21	Down-sized static interface	Todd Brown	Biography	1925	47.13	87
22	Multi-layered optimizing migration	Wesley Escobar	Fiction	1908	39.23	78
23	Reverse-engineered context-sensitive hardware	Christina Hernandez	Mystery	1967	38.55	70
24	Ergonomic incremental hub	Tanya McDonald	Biography	1907	32.74	54
25	Devolved mobile conglomeration	Alexander Bailey	Biography	1984	8.55	79
26	Multi-channelled multi-tasking capability	Patricia Buck	Science Fiction	1964	21.05	41
27	Team-oriented human-resource access	Cody Shah	Fantasy	1927	42.14	76
28	Expanded analyzing portal	Lisa Coffey	Fiction	1941	37.51	79
29	Quality-focused multi-tasking challenge	Katrina Underwood	Fiction	1905	31.12	100
30	Multi-layered global open system	Jose Meyer	Biography	2012	30.58	37
31	Implemented encompassing conglomeratic	Melissa Taylor	Fiction	2010	21.23	44
32	Synergistic dedicated concept	Lisa Bailey	Mystery	2021	21.56	100
33	Team-oriented empowering synergy	Sandra Williams	Non-Fiction	2023	35.06	49
34	Stand-alone multimedia throughput	Jason Jefferson	Fantasy	1939	16.49	43
35	Grass-roots solution-oriented adapter	William Turner	Non-Fiction	2018	31.81	85
36	Open-source needs-based secured line	Jacob French	Mystery	1949	34.51	86
37	Up-sized tertiary archive	Todd Kennedy	Fantasy	1955	13.08	3
38	Pre-emptive asynchronous leverage	Courtney Nichols	Fantasy	2022	16.47	72
39	Optimized national process improvement	Megan Goodwin	Fiction	1978	10.99	42
40	Adaptive didactic interface	Natalie Gonzalez	Fiction	1923	25.97	94
41	Integrated grid-enabled superstructure	Katherine Robbins	Science Fiction	1950	43.09	78
42	Pre-emptive interactive focus group	Shannon Reese	Mystery	1937	48.35	82
43	Function-based zero-defect initiative	Daniel Nunez	Romance	1952	47.39	61
44	Networked systemic implementation	Ryan Frank	Science Fiction	1965	13.55	0
45	Centralized cohesive website	Luis Rogers	Mystery	1984	25.49	59
46	Distributed attitude-oriented open system	Jamie Lambert	Romance	1923	33.17	75
47	Reverse-engineered directional conglomerate	John Christian	Fiction	2006	20.37	90
48	Multi-channelled 5thgeneration Internet solution	Jennifer Powell	Biography	1963	24.7	94
49	Robust attitude-oriented attitude	Zachary Hayes	Biography	1955	49.5	15
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**Table 2: Customers**

Customer_ID	Name	Email	Phone	City	Country
1	Deborah Griffith	balljoseph@wright-keith.net	1234567891	South Craigfort	Denmark
2	Crystal Clements	kimberlybennett@curtis.com	1234567892	East Derekberg	Nicaragua
3	Susan Fuller	beanmichael@burnett-stewart.net	1234567893	Austinbury	Equatorial Guinea
4	Jamie Ramirez	amandahood@warren.com	1234567894	Dianamouth	Slovenia
5	Marcus Murphy	connerjohn@yahoo.com	1234567895	Smithbury	Guinea-Bissau
6	Stephen Vasquez	ricemiguel@yahoo.com	1234567896	Hamiltonstad	Rwanda
7	Susan Hicks	jeffrey91@yahoo.com	1234567897	East Rebecca	Montenegro
8	Matthew Johnson	austinkenneth@manning.net	1234567898	Kirstenborough	Israel
9	Matthew Williams	jeffrey41@diaz.com	1234567899	Rebeccafurt	Somalia
10	Ronald Osborn	staciekelley@heath.com	1234567900	Lake Benjamin	Cameroon
11	Thomas Garcia	rmiller@gmail.com	1234567901	West Monicabury	Argentina
12	Jennifer Murray	wilsonbrittany@hotmail.com	1234567902	South Ashleychester	Zimbabwe
13	Kristine Kim	sarahwilliams@hotmail.com	1234567903	Lake Robert	Nigeria
14	John Wood	johnsonalexander@gmail.com	1234567904	Richardsonville	New Caledonia
15	Vanessa Gaines	tbullock@gmail.com	1234567905	Rodriguezmouth	Wallis and Futuna
16	Stacey Flores	jackjackson@hotmail.com	1234567906	East Michaelfurt	Saint Helena
17	Christine Maldonado	ztaylor@yahoo.com	1234567907	Smithborough	Chile
18	David Watson	laurenlawson@alvarez-mcfarland.com	1234567908	New Joseptown	Equatorial Guinea
19	Marc Nash	joshua59@gmail.com	1234567909	Davidton	French Guiana
20	Robert Salas	schultzjohn@thomas.com	1234567910	Schultzchester	Denmark
21	Edgar Frost	maria51@gmail.com	1234567911	Jonathanhaven	Saudi Arabia
22	Stacey Adams	fjohnson@gmail.com	1234567912	Clintonmouth	Iceland
23	Hannah Drake	sandersallen@hotmail.com	1234567913	Deannabury	Faroë Islands
24	Christina Mitchell	justin67@yahoo.com	1234567914	Bridgestown	Trinidad and Tobago
25	James Martin	reynoldstryone@wiggins.com	1234567915	North James	Yemen
26	Dylan Bell	isaac43@gmail.com	1234567916	North Aaron	Guam
27	Debbie Sampson	collin21@hotmail.com	1234567917	Christopherburgh	Bahamas
28	William Burns	valeriemack@gmail.com	1234567918	South Kristyville	Netherlands
29	John Maxwell	martinsamantha@martin.net	1234567919	Nolanstad	Cuba
30	Dylan Garcia	oanderson@yahoo.com	1234567920	Hallfort	Turkey
31	Amanda Morton	lolsen@jones.com	1234567921	Marktown	Antigua and Barbuda
32	Jeffrey Shannon	nmcmillan@smith.com	1234567922	New Carlosbury	Malta
33	Kristin Hall	michele78@yahoo.com	1234567923	Underwoodfurt	Cuba
34	Ryan Love	joseph37@gmail.com	1234567924	Leestad	Anguilla
35	Daniel Gonzalez	nday@combs.com	1234567925	Hoovermouth	Fiji
36	Benjamin Wallace	alexander26@hotmail.com	1234567926	Schroederton	Botswana
37	Ryan Lara	benjamin38@thompson-adams.net	1234567927	Port Jameschester	Chad
38	Nicholas Harris	christine93@perkins.com	1234567928	Davistown	Canada
39	Tonya Arnold	aprince@hotmail.com	1234567929	Nelsonmouth	Japan
40	Beth Gomez	wjackson@bowen.com	1234567930	Hollyhaven	Myanmar
41	Samuel Daniels	andrew07@gmail.com	1234567931	Codyton	Benin
42	Susan Wilson	oohod@yahoo.com	1234567932	Jeffreystad	Niger
43	Steven Stone	jill61@herrera.org	1234567933	Ashleytown	Maldives
44	Alexis Gallegos	craig42@smith-carroll.com	1234567934	Conniefort	Lesotho
45	Jennifer Fowler	whitemargaret@blackwell.info	1234567935	Carlsonfort	Ireland
46	Travis Wells	stacywilson@hotmail.com	1234567936	New David	Moldova
47	Debra Park	dawnmyers@munoz-ayala.com	1234567937	Phillipsmouth	Isle of Man
48	Paula Harris	lisa63@barber.org	1234567938	Reginaside	Saint Kitts and Nevis
49	Anne Dean	katrinaedwards@anderson.org	1234567939	Jonathanberg	Heard Island and McDonald Islands
50	Kimberly Thomas	omoore@garcia.com	1234567940	New Ruben	Tajikistan
51	Cynthia Walker	huertarobert@gmail.com	1234567941	Lake Robertfort	Yemen
52	Ian Lopez	larry64@gmail.com	1234567942	North Ashleyside	Guyana
53	Sandra Coleman	emerritt@yahoo.com	1234567943	Lake Karenmouth	Netherlands Antilles
54	Rachel Jones	bmedina@hotmail.com	1234567944	Brendafurt	Central African Republic
55	Michelle Stevens	janicethompson@jones-arnold.com	1234567945	Wagnerfurt	Romania
56	Dr. Susan Nichols	hernandezchelsea@thompson.com	1234567946	East Lisaberg	Netherlands Antilles
57	Nicolas Joseph	debra75@gmail.com	1234567947	Lindaburgh	Congo
58	Michael Young	anthony39@gmail.com	1234567948	Lake Tannerton	United Arab Emirates
59	Andrew Collins	msanchez@king.net	1234567949	West Sheri	Guatemala
60	Steven Matthews	timothy98@durham.info	1234567950	Lake Sharonville	Senegal
61	Lindsay Reynolds	cynthia58@robinson.biz	1234567951	Port Manuelfurt	Belgium
62	Paul Heath	pamelamartin@yahoo.com	1234567952	East Shannonview	Isle of Man
63	Manuel Lewis	alicia70@hotmail.com	1234567953	Brendatown	Heard Island and McDonald Islands
64	Jennifer Clark	michael13@cantu-hawkins.com	1234567954	Jamesville	British Indian Ocean Territory (Chagos Archipelago)
65	Laura Wiggins	christopherrhughes@gmail.com	1234567955	Sherryport	Tokelau
66	Molly Diaz	rwhite@gmail.com	1234567956	Brandonside	Seychelles
67	Denise Chapman	andrew13@pacheco-hughes.com	1234567957	Garcialand	Côte d'Ivoire
68	Kimberly Smith	imiller@gmail.com	1234567958	East Raymond	Indonesia

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**Table 3: Orders**

Order_ID	Customer_ID	Book_ID	Order_Date	Quantity	Total_Amount
1		84	169	5/26/2023	8
2		137	301	1/23/2023	10
3		216	261	5/27/2024	6
4		433	343	11/25/2023	7
5		14	431	7/26/2023	7
6		439	119	10/11/2024	5
7		195	467	10/23/2023	6
8		32	159	5/7/2024	4
9		109	407	1/4/2024	9
10		94	122	7/9/2024	4
11		131	206	10/16/2023	1
12		454	3	6/17/2024	2
13		420	180	6/8/2023	5
14		454	319	8/24/2023	2
15		127	479	1/10/2023	6
16		412	196	10/6/2023	8
17		462	481	3/20/2023	5
18		377	101	8/7/2024	4
19		496	60	11/17/2023	9
20		195	67	7/14/2023	1
21		356	287	12/5/2024	3
22		177	427	6/10/2024	3
23		119	301	8/4/2023	3
24		266	192	7/10/2023	3
25		265	250	5/25/2023	10
26		294	407	6/11/2023	1
27		310	156	12/3/2024	1
28		151	423	11/27/2024	8
29		305	446	10/5/2023	8
30		438	248	9/23/2023	6
31		386	279	3/12/2024	8
32		292	313	12/6/2024	4
33		478	253	4/15/2024	5
34		463	146	6/27/2024	3
35		303	172	7/8/2023	5
36		417	260	1/21/2024	9
37		110	411	12/27/2023	4
38		15	466	6/26/2023	4
39		488	422	8/3/2024	8
40		120	450	7/3/2024	2
41		418	147	5/5/2024	8
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## QUERIES:

--1) Retrieve all Fiction books

```
select *  
from books  
where genre='Fiction';
```

### Output:

BOOK_ID	TITLE	AUTHOR	GENRE	PUBLISHED_YEAR	PRICE	STOCK
1	4 Customizable 24hour product	Christopher Andrews	Fiction	2020	43.52	8
2	22 Multi-layered optimizing migration	Wesley Escobar	Fiction	1908	39.23	78
3	28 Expanded analyzing portal	Lisa Coffey	Fiction	1941	37.51	79
4	29 Quality-focused multi-tasking challenge	Katrina Underwood	Fiction	1905	31.12	100
5	31 Implemented encompassing conglomeration	Melissa Taylor	Fiction	2010	21.23	44
6	39 Optimized national process improvement	Megan Goodwin	Fiction	1978	10.99	42
7	40 Adaptive didactic interface	Natalie Gonzalez	Fiction	1923	25.97	94
8	47 Reverse-engineered directional conglomeration	John Christian	Fiction	2006	20.37	90
9	62 Re-contextualized real-time strategy	Nicole Lynch	Fiction	1953	26.34	23
10	63 Polarized heuristic database	Franklin Mack	Fiction	1989	22.38	56

--2) Find books published before 1950

```
select *  
from books  
where published_year<1950;
```

### Output:

	AUTHOR	GENRE	PUBLISHED_YEAR	PRICE	STOCK
1	Joseph Crane	Biography	1949	21.34	100
2	Derrick Howard	Non-Fiction	1913	15.75	27
3	Jacqueline Young	Romance	1927	43.63	95
4	Jaclyn Miller	Romance	1913	14.04	99
5	Jeremy Hayes	Science Fiction	1933	6.04	95
6	Christopher Price	Mystery	1941	10.07	8
7	Todd Brown	Biography	1925	47.13	87
8	Wesley Escobar	Fiction	1908	39.23	78
9	Tanya McDonald	Biography	1907	32.74	54
10	Cody Shah	Fantasy	1927	42.14	76

--3) List all customers from Denmark

```
select *  
from customers  
where country='Denmark';
```

### Output:

CUSTOMER_ID	NAME	EMAIL	PHONE	CITY	COUNTRY
1	Deborah Griffith	balljoseph@wright-keith.net	1234567891	South Craigfort	Denmark
2	Robert Salas	schultzjohn@thomas.com	1234567910	Schultzchester	Denmark
3	Patricia Hughes	colleen51@king.com	1234568202	Pennyland	Denmark
4	Crystal Pierce	webbteresa@gutierrez-garcia.com	1234568351	Port Davidhaven	Denmark

--4) Count total number of books

```
select count(*) as "Total Books"  
from books;
```

**Output:**

Total Books	
1	500

--5) Show all orders placed in 2023

```
select *
from orders
where extract(year from order_date)='2023';
```

**Output:**

ORDER_ID	CUSTOMER_ID	BOOK_ID	ORDER_DATE	QUANTITY	TOTAL_AMOUNT
1	1	84	169 26-MAY-23	8	188.56
2	2	137	301 23-JAN-23	10	216.6
3	4	433	343 25-NOV-23	7	301.21
4	5	14	431 26-JUL-23	7	136.36
5	7	195	467 23-OCT-23	6	82.92
6	11	131	206 16-OCT-23	1	38.01
7	13	420	180 08-JUN-23	5	125.45
8	14	454	319 24-AUG-23	2	85.22
9	15	127	479 10-JAN-23	6	229.62
10	16	412	196 06-OCT-23	8	53.52

--6) Find the most expensive book

```
select *
from books
where price=(select max(price) from books);
```

**Output:**

BOOK_ID	TITLE	AUTHOR	GENRE	PUBLISHED_YEAR	PRICE	STOCK
1	340 Proactive system-worthy orchestration	Robert Scott	Mystery	1907	49.98	88

--7) Find the cheapest book

```
select *
from books
where price=(select min(price) from books);
```

**Output:**

BOOK_ID	TITLE	AUTHOR	GENRE	PUBLISHED_YEAR	PRICE	STOCK
1	320 Ergonomic clear-thinking interface	Judith Gutierrez	Fantasy	1950	5.07	55

--8) Calculate total stock of all books

```
select sum(stock) as "Total Stock"
from books;
```

**Output:**

Total Stock	
1	25056

--9) List all unique genres

```
select distinct genre
from books;
```

**Output:**

GENRE
1 Fiction
2 Mystery
3 Fantasy
4 Non-Fiction
5 Romance
6 Biography
7 Science Fiction

--10) Display top 5 highest priced books

```
select *
from books
order by price desc
fetch next 5 rows only;
```

**Output:**

BOOK_ID	TITLE	AUTHOR	GENRE	PUBLISHED_YEAR	PRICE	STOCK
1	340 Proactive system-worthy orchestration	Robert Scott	Mystery	1907	49.98	88
2	155 Optimized content-based standardization	Timothy Adams	Science Fiction	1901	49.96	88
3	240 Stand-alone content-based hub	Lisa Ellis	Fantasy	1957	49.9	41
4	100 Synchronized client-server service-desk	James Alvarado	Fiction	1906	49.89	29
5	119 Switchable modular moratorium	Tonya Saunders	Romance	2010	49.88	76

--11) Show orders with customer names

```
select o.order_id,c.name,o.total_amount
from customers c
join orders o
on c.customer_id=o.customer_id;
```

**Output:**

ORDER_ID	NAME	TOTAL_AMOUNT
1	Gary Blair	188.56
2	Steven Miller	216.6
3	Phillip Allen	85.5
4	Corey Wells	301.21
5	John Wood	136.36
6	Shane Chang	249.4
7	Dominique Turner	82.92
8	Jeffrey Shannon	144.84
9	Jacob Kelley	379.71
10	Mr. David Cox	123

--12) Show orders with book titles

```
select o.order_id,b.title
from books b
join orders o
on b.book_id=o.book_id;
```

**Output:**

	ORDER_ID	TITLE
1	131	Configurable modular throughput
2	12	Streamlined coherent initiative
3	328	Streamlined coherent initiative
4	72	Adaptive 5thgeneration encoding
5	444	Adaptive 5thgeneration encoding
6	471	Open-architected exuding structure
7	383	Persistent local encoding
8	415	Ergonomic national hub
9	234	Secured zero tolerance time-frame
10	264	Adaptive 5thgeneration orchestration

--13) Total revenue generated

```
select sum(total_amount) as "Total Revenue"
from orders;
```

**Output:**

	Total Revenue
1	75628.66

--14) Total revenue per customer

```
select c.name,sum(o.total_amount)as "Total Revenue"
from customers c
join orders o
on c.customer_id=o.order_id
group by c.name;
```

**Output:**

	NAME	Total Revenue
1	Deborah Griffith	188.56
2	Susan Hicks	82.92
3	Christina Mitchell	145.11
4	Dylan Bell	42.19
5	John Maxwell	275.92
6	Dylan Garcia	281.94
7	Nicholas Harris	148.68
8	Samuel Daniels	361.6
9	Alexis Gallegos	179.4
10	Anne Dean	168.56

```
--15) Total revenue per genre
select b.genre,sum(o.total_amount) as "Total Revenue"
from books b
join orders o
on b.book_id=o.book_id
group by b.genre;
```

**Output:**

GENRE	Total Revenue
1 Mystery	12788.45
2 Fiction	7271.22
3 Fantasy	11238.38
4 Romance	13086.98
5 Non-Fiction	11603.06
6 Biography	7870.06
7 Science Fiction	11770.51

```
--16) Customers who placed more than 1 order
select customer_id,count(*) as "Order Count"
from orders
group by customer_id
having count(*)>2;
```

**Output:**

CUSTOMER_ID	Order Count
1 463	3
2 418	3
3 405	4
4 290	3
5 457	4
6 166	3
7 328	3
8 107	4
9 329	3
10 59	3
11 437	4

```
--17) Orders with quantity greater than average quantity
select *
from orders
where quantity >(select avg(quantity) from orders);
```

**Output:**

ORDER_ID	CUSTOMER_ID	BOOK_ID	ORDER_DATE	QUANTITY	TOTAL_AMOUNT
1	1	84	169 26-MAY-23	8	188.56
2	2	137	301 23-JAN-23	10	216.6
3	3	216	261 27-MAY-24	6	85.5
4	4	433	343 25-NOV-23	7	301.21
5	5	14	431 26-JUL-23	7	136.36
6	7	195	467 23-OCT-23	6	82.92
7	9	109	407 04-JAN-24	9	379.71
8	15	127	479 10-JAN-23	6	229.62
9	16	412	196 06-OCT-23	8	53.52
10	19	496	60 17-NOV-23	9	316.26
11	25	265	250 25-MAY-23	10	126.5
12	28	151	423 27-NOV-24	8	205.04

--18) Books that have never been ordered

```
select *
from books
where book_id not in (select distinct book_id from orders);
```

**Output:**

BOOK_ID	TITLE	AUTHOR	GENRE	PUBLISHED_YEAR	PRICE
1	2 Persevering reciprocal knowledge user	Mario Moore	Fantasy	1971	35.1
2	4Customizable 24hour product	Christopher Andrews	Fiction	2020	43.5
3	6Advanced encompassing implementation	Bryan Morgan	Biography	1985	6.5
4	9 Optimized interactive challenge	Colin Buckley	Fantasy	1987	14.3
5	12 Polarized optimal array	Destiny Scott	Non-Fiction	1989	27.4
6	14 Re-engineered demand-driven parallelism	Jeremy Hayes	Science Fiction	1933	6.0
7	15 User-friendly motivating strategy	Keith Smith	Non-Fiction	1997	23.8
8	20 Face-to-face systematic throughput	Teresa Brennan	Non-Fiction	1978	48.1
9	22 Multi-layered optimizing migration	Wesley Escobar	Fiction	1908	39.2
10	23 Reverse-engineered context-sensitive hardware	Christina Hernandez	Mystery	1967	38.5
11	24 Ergonomic incremental hub	Tanya McDonald	Biography	1907	32.7
12	27 Team-oriented human-resource access	Cody Shah	Fantasy	1927	42.1
13	30 Multi-layered global open system	Jose Meyer	Biography	2012	30.5

--19) Month-wise revenue

```
select to_char(order_date, 'mm-month') as Month, sum(total_amount) as "Revenue"
from orders
group by to_char(order_date, 'mm-month')
order by to_char(order_date, 'mm-month');
```

**Output:**

MONTH	Revenue
01-january	8466.04
02-february	5070.39
03-march	6821.73
04-april	6932.51
05-may	8288.07
06-june	3991.68
07-july	6538.07
08-august	6159.17
09-september	5049.66
10-october	5930
11-november	6782.48
12-december	5598.86

--20) Customers who ordered books costing more than \$40

```
select distinct c.name,b.price
from books b
join orders o on b.book_id=o.book_id
join customers c on o.customer_id=c.customer_id
where b.price>40;
```

**Output:**

	NAME	PRICE
1	Thomas Garcia	44.36
2	Christine Maldonado	49.15
3	Nicolas Joseph	40.74
4	Gregory Joseph	44.07
5	Dominic Jenkins	43.51
6	Ronald Jordan	45.38
7	Jennifer Booker	49.88
8	Paul Morales	41.83
9	Nancy Dennis	45.58
10	Russell Thompson	43.03
11	Cynthia Cooper	44.05
12	Anthony Young	45.38

--21) Rank books by price

```
select b.title,b.price,
       dense_rank() over(order by price desc) as "Price Rank"
from books b;
```

**Output:**

	TITLE	PRICE	Price Rank
1	Proactive system-worthy orchestration	49.98	1
2	Optimized content-based standardization	49.96	2
3	Stand-alone content-based hub	49.9	3
4	Synchronized client-server service-desk	49.89	4
5	Switchable modular moratorium	49.88	5
6	Business-focused methodical application	49.59	6
7	Function-based heuristic analyzer	49.53	7
8	Robust attitude-oriented attitude	49.5	8
9	Exclusive hybrid monitoring	49.42	9
10	Profound tertiary encoding	49.34	10
11	Innovative 3rdgeneration database	49.23	11
12	Optimized attitude-oriented synergy	49.15	12
13	Expanded maximized portal	49.1	13
14	Quality-focused mobile migration	49.08	14
15	Persistent local encoding	48.99	15
16	Optimized even-keeled analyzer	48.97	16
17	Multi-tiered responsive parallelism	48.96	17

```
--22) Top 3 best-selling books (by quantity)
select b.title,sum(o.quantity) as "Total Sold"
from books b
join orders o
on b.book_id=o.book_id
group by b.title
order by "Total Sold" desc
fetch next 3 rows only;
```

**Output:**

	TITLE	Total Sold
1	Realigned multi-tasking installation	28
2	Implemented encompassing conglomeration	27
3	Advanced didactic time-frame	24

--23) Running total of revenue by date

```
select o.order_date,
       sum(total_amount) over(order by o.order_date) as "Running Revenue"
from orders o;
```

**Output:**

	ORDER_DATE	Running Revenue
1	09-DEC-22	31.68
2	11-DEC-22	207.24
3	12-DEC-22	283.89
4	13-DEC-22	543.87
5	13-DEC-22	543.87
6	14-DEC-22	942.91
7	17-DEC-22	1155.21
8	18-DEC-22	1182.15
9	20-DEC-22	1281.98
10	20-DEC-22	1281.98
11	24-DEC-22	1397.42
12	25-DEC-22	1684.06

--24) Highest spending customer

```
select *
from (
    select c.name,sum(o.total_amount) as Spending
    from customers c
    join orders o
    on c.customer_id=o.customer_id
    group by c.name
    order by Spending desc)
where rownum=1;
```

**Output:**

	NAME	SPENDING
1	Kim Turner	1398.9

```
--25) Percentage contribution of each order to total revenue
select o.order_id,
       round(total_amount/sum(total_amount) over() *100,2) as "Revenue Percentage"
from orders o;
```

**Output:**

	ORDER_ID	Revenue Percentage
1	1	0 .25
2	2	0 .29
3	3	0 .11
4	4	0 .4
5	5	0 .18
6	6	0 .33
7	7	0 .11
8	8	0 .19
9	9	0 .5
10	10	0 .16
11	11	0 .05
12	12	0 .04

```
--26) Genre-wise average book price
select genre,round(avg(price),2) as "Average Price"
from books
group by genre;
```

**Output:**

	GENRE	Average Price
1	Fiction	28.38
2	Mystery	26.44
3	Fantasy	25.98
4	Non-Fiction	28.77
5	Romance	27.78
6	Biography	27.67
7	Science Fiction	26.98

```
--27) Customers who placed orders in both 2023 and 2024
select c.customer_id,c.name
from customers c
join orders o
on c.customer_id=o.customer_id
where extract(year from o.order_date) in(2023,2024)
group by c.name,c.customer_id
having count(distinct extract(year from o.order_date))=2 ;
```

**Output:**

	CUSTOMER_ID	NAME
1	500	James York
2	81	Matthew Hall
3	159	Jennifer White
4	495	Patrick Rivera
5	98	Robert Blair
6	134	Nichole Velez
7	290	Sarah Cameron
8	23	Hannah Drake
9	107	Amy Hunt
10	109	Jacob Kelley
11	13	Kristine Kim
12	119	Alyssa Cuevas
13	149	Jason Robinson
14	8	Matthew Johnson
15	239	Amanda Kramer
16	22	Stacey Adams

```
--28) Low-stock alert (stock < 10)
select title,stock
from books
where stock<10;
```

**Output:**

TITLE	STOCK
1 Customizable 24hour product	8
2 Advanced encompassing implementation	2
3 Vision-oriented tangible project	8
4 Progressive asymmetric Internet solution	1
5 Up-sized tertiary archive	3
6 Networked systemic implementation	0
7 Robust eco-centric capacity	0
8 Total explicit open architecture	7
9 Multi-layered fresh-thinking solution	3
10 Innovative directional matrix	9
11 Extended actuating encryption	4
12 Expanded explicit neural-net	4
13 Re-contextualized radical matrix	2
14 Open-architected scalable knowledge user	2

```
--29) Books contributing more than average revenue
```

```
select b.title,sum(o.total_amount)as Revenue
from books b
join orders o
on b.book_id=o.book_id
group by b.title
having sum(o.total_amount)>(select avg(total_amount) from orders);
```

**Output:**

TITLE	REVENUE
1 Secured zero tolerance time-frame	179.75
2 Adaptive 4thgeneration concept	552.58
3 Multi-channeled multi-tasking capability	231.55
4 Robust eco-centric capacity	316.26
5 Customer-focused context-sensitive process improvement	164.15
6 Integrated secondary access	1104.69
7 Customizable bi-directional focus group	257.21
8 Multi-tiered responsive parallelism	1077.12
9 Synergistic grid-enabled website	190.08
10 Networked tertiary approach	188.56
11 Configurable fault-tolerant interface	299.67
12 Distributed modular capability	486.7
13 Reactive bandwidth-monitored architecture	313.5
14 Virtual fault-tolerant model	473.44
15 Cross-group responsive protocol	281.94
16 Team-oriented bandwidth-monitored project	170.28
17 Upgradable radical adapter	396.5
18 Distributed disintermediate groupware	511.32

```
--30) Most popular genre by quantity sold
select b.genre,sum(o.quantity) as "Quantity Sold"
from books b
join orders o
on b.book_id=o.book_id
group by b.genre
order by sum(o.quantity) desc
fetch next 1 rows only;
```

**Output:**

	GENRE	Quantity Sold
1	Mystery	504

