

Queries

1. Retrieve the first name and last name of each author in the author relation. Order does not matter. **(1 points)**

SQL Statement:

USE henry;

```
SELECT firstName, lastName FROM author;
```

Output:

#	firstName	lastName
---	-----------	----------

Toni	Morrison
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Paul	Solotaroff
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Vernor	Vintage
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Dick	Francis
------	---------

Peter	Straub
-------	--------

Stephen	King
---------	------

Philip	Pratt
--------	-------

Truddi	Chase
--------	-------

Bradley	Collins
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Joseph	Heller
--------	--------

Gary	Wills
------	-------

Douglas R.	Hofstadter
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Harper	Lee
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Stephen E.	Ambrose
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J.K.	Rowling
------	---------

J.D.	Salinger
------	----------

Seamus	Heaney
--------	--------

Albert	Camus
--------	-------

Bradley	Collins, Jr.
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John	Steinbeck
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Riva Castelman

Barbara Owen

Randy O'Rourke

Tracy Kidder

Lon Schleining

2. Retrieve the title and book type in the book relation. Order does not matter. **(1 points)**

SQL Statement:

USE henry;

SELECT title, type FROM book;

Output:

#	title	type
	A Deepness in the Sky	SFI
	Magic Terror	HOR
	The Stranger	FIC
	Venice	ART
	Second Wind	MYS
	The Edge	MYS
	Dreamcatcher: A Novel	HOR
	Treasure Chests	ART
	Beloved	FIC
	Harry Potter and the Prisoner of Azkaban	SFI
	Van Gogh and Gauguin	ART
	Of Mice and Men	FIC
	Electric Light	POE
	Group: Six People in Search of a Life	PSY
	Nine Stories	FIC
	The Soul of a New Machine	SCI
	Travels with Charley	TRA
	Catch-22	FIC
	Jazz	FIC
	Band of Brothers	HIS
	A Guide to SQL	CMP
	Franny and Zooey	FIC
	East of Eden	FIC
	Harry Potter and the Goblet of Fire	SFI
	The Fall	FIC
	Godel, Escher, Bach	PHI
	When Rabbit Howls	PSY

Black House	HOR
Song of Solomon	FIC
The Grapes of Wrath	FIC
Slay Ride	MYS
The Catcher in the Rye	FIC
To Kill a Mockingbird	FIC

3. Retrieve the publisherCode in the book relation. List each publisherCode only once in the result. Order does not matter. **(1 points)**

SQL Statement:

USE henry;

SELECT DISTINCT (publisherCode) FROM book;

Output:

publisherCode

BA

BP

BY

CT

FA

FS

HC

JP

LB

PE

PL

PU

RH

SC

SS

ST

TA

TB

TO

VB

WP

4. Retrieve the title and price of each book in the book relation. Further add a calculated column named 'discount' that shows the price the book with 25% discount. Order does not matter. Show the first five rows of the result. **(2 points)**

SQL Statement:

USE henry;

SELECT title, price, (price - (price*0.25)) AS discount FROM book;

Output:

#	title	price	discount
A	Deepness in the Sky	7.19	5.3925
Magic	Terror	7.99	5.9925
The	Stranger	8.00	6.0000
Venice	24.50	18.3750	
Second	Wind	24.95	18.7125

5. Retrieve the title and price for any book whose price is higher than \$20.00 in the book relation. Show the full result. (2 points)

SQL Statement:

USE henry;

SELECT title, price FROM book
WHERE price>20;

Output:

#	title	price
Venice	24.50	
Second	Wind	24.95
Treasure	Chests	24.46
Van Gogh and	Gauguin	21.00
A Guide to	SQL	37.95

6. Retrieve the publisherName of all publishers that are in New York only in the publisher relation. Order does not matter. (2 points)

SQL Statement:

USE henry;

SELECT publisherName FROM publisher
WHERE city="New York";

Output:

#	publisherName
Arcade	Publishing
Back	Bay books
Fawcett	books
Farrar	Straus and Giroux
HarperCollins	publishers
Jove	Publications
Lb	books
Penguin	USA

Plume
Putnam Publishing Group
Random House
Schoken books
Scribner
Simon and Schuster
SchoLASTic Trade
Tor books
Thames and Hudson
Vintage books
W.W. Norton

7. Retrieve the publisherName of all publishers that are not in New York in the publisher relation. (use != for inequality). Order does not matter. Show the full result. **(3 points)**

SQL Statement:

USE henry;

SELECT publisherName FROM publisher
WHERE city!="New York";

Output:

publisherName

Arkham House

Basic books

Berkley Publishing

Course Technology

Jeremy P. Tarcher

McPherson and Co.

Taunton Press

Touchstone books

Westview Press

8. Retrieve the bookCode and onHand for each book for which a branch has between 2 and 4 copies in the inventory relation. Use the **BETWEEN** keyword in this query. Order does not matter. Show the full result. **(3 points)**

SQL Statement:

USE henry;

**SELECT bookCode, onHand FROM inventory
WHERE onHand BETWEEN 2 and 4;**

Output:

# bookCode	onHand
0180	2
0189	2
0200	3
0378	2
079X	2
079X	3
1351	4
1351	2
138X	3
2226	3
2226	2
2281	3
2766	2
2908	3
3350	2
3906	2
5790	2
6128	4
6128	3
6328	2
6908	2
7405	2
7559	2
8720	3
9611	2
9627	2
9701	2
9701	3
9701	2
9882	3
9883	3
9883	2
9931	2

9. Retrieve the title and type for each book in the book relation in which the type is SFI, HOR, ART or PSY. **Use the IN operator for this query.** Order the result by type ascending. Show the first five rows of the result. (3 points)

SQL Statement:

USE henry;

SELECT title, type FROM book

WHERE type IN ("SFI", "HOR", "ART", "PSY");

Output:

title type

A Deepness in the Sky SFI

Magic Terror HOR

Venice ART

Dreamcatcher: A Novel HOR

Treasure Chests ART

Harry Potter and the Prisoner of Azkaban SFI

Van Gogh and Gauguin ART

Group: Six People in Search of a Life PSY

Harry Potter and the Goblet of Fire SFI

When Rabbit Howls PSY

Black House HOR

10. Retrieve the title for each book in the book relation that begins with the word “The”. Order the result by title ascending. Show the full result. **(3 points)**

SQL Statement:

USE henry;

SELECT title FROM book

WHERE title LIKE ("The%")

ORDER BY title;

Output:

title

The Catcher in the Rye

The Edge

The Fall

The Grapes of Wrath

The Soul of a New Machine

The Stranger

11. Retrieve the title for each book in the book relation that doesn't have a type. Order the result by title ascending. Show the full result. **(3 points)**

SQL Statement:

USE henry;

SELECT title FROM book

WHERE type=null

ORDER BY title;

Output:

title

12. Retrieve all of the columns from the author relation. Order the results by the authors lastName descending. (3 points)

SQL Statement:

USE henry;

```
SELECT * FROM author
ORDER BY lastName DESC;
```

Output:

#	authorNum	lastName	firstName
11	Wills	Gary	
3	Vintage	Vernor	
5	Straub	Peter	
20	Steinbeck	John	
2	Solotaroff	Paul	
25	Schleining	Lon	
16	Salinger	J.D.	
15	Rowling	J.K.	
7	Pratt	Philip	
22	Owen	Barbara	
23	O'Rourke	Randy	
1	Morrison	Toni	
13	Lee	Harper	
6	King	Stephen	
24	Kidder	Tracy	
12	Hofstadter	Douglas R.	
10	Heller	Joseph	
17	Heaney	Seamus	
4	Francis	Dick	
19	Collins, Jr.	Bradley	
9	Collins	Bradley	
8	Chase	Truddi	
21	Castelman	Riva	
18	Camus	Albert	
14	Ambrose	Stephen E.	

13. Retrieve the title and type from the book relation. Order the results first by type and then by title. Both sort keys should be ascending order. Show the first five rows of the result. (3 points)

SQL Statement:

USE henry;

**SELECT title, type FROM book
ORDER BY type, title;**

Output:

**# title type
Treasure Chests ART
Van Gogh and Gauguin ART
Venice ART
A Guide to SQL CMP
Beloved FIC**

14. Retrieve a count of the number of books published by Penguin USA. Name the column 'Penguin Books'. Order does not matter. Show your full result. **(3 points)**

SQL Statement:

USE henry;

**SELECT COUNT(publisherName) AS "Penguin Books" FROM publisher
WHERE publisherName="Penguin USA";**

Output:

**# Penguin Books
1**

15. Retrieve the publisherCode and the number of books from publisher from the book relation. Order the result by the count in descending order. Show the first five rows of the result. **(3 points)**

SQL Statement:

USE henry;

**SELECT publisherCode, COUNT(title) AS count FROM book
GROUP BY publisherCode
ORDER BY count DESC;**

Output:

**# publisherCode count
PE 4
JP 3
LB 3
PL 3
SC 2**

16. Retrieve the publisherCode and the number of books from that publisher from the book relation. Order the results by publisherCode and only show publishers who have 3 or more books in the relation. **Hint: will need to use the HAVING keyword.** Show your full result. **(3 points)**

SQL Statement:

USE henry;

```
SELECT publisherCode, COUNT(title) AS count FROM book
GROUP BY publisherCode
HAVING count>2
ORDER BY publisherCode;
```

Output:

# publisherCode	count
JP	3
LB	3
PE	4
PL	3

17. Retrieve the number of books in the book relation whose prices is \$20.00 or lower. Order does not matter. Show your full result. **(3 points)**

SQL Statement:

USE henry;

```
SELECT COUNT(price) FROM book
WHERE price<20;
```

Output:

COUNT(price)
28

18. Retrieve the title of the most expensive book in the book relation. Use a subquery for this problem. Show your full result. **(3 points)**

SQL Statement:

```
SELECT title
FROM book
WHERE price IN (
SELECT MAX(price)
FROM book);
```

Output:

title

A Guide to SQL

19. Retrieve the title of the least expensive book in the book relation. Use a subquery for this problem. Show your full result. **(3 points)**

SQL Statement:

USE henry;

```
SELECT title
FROM book
WHERE price IN (
SELECT MIN(price)
FROM book);
```

Output:

title

Nine Stories

Franny and Zooey

The Catcher in the Rye

20. Retrieve the title of all books in the book relation that are not published in New York. Order result by the city ascending. Use a subquery for this query. **(5 points)**

SQL Statement:

USE henry;

```
SELECT title
FROM book
WHERE publisherCode IN (
SELECT publisherCode
FROM publisher
WHERE city != "New York"
ORDER BY city);
```

Output:

title

Treasure Chests

Van Gogh and Gauguin

Group: Six People in Search of a Life

Band of Brothers

A Guide to SQL

Godel, Escher, Bach

21. Retrieve all of the columns from the book and publisher relations in one result. Use aliases in your query and use the simple JOIN syntax. Order does not matter. **(5 points)**

SQL Statement:

SELECT *

FROM book b, publisher p

WHERE b.publisherCode = p.publisherCode;

Output:

#	bookCode	title	publisherCode	TYPE	price	paperback	publisherCode
	publisherName	city					
0180	A Deepness in the Sky	TB	SFI	7.19	Y	TB	Tor books New York
0189	Magic Terror	FA	HOR	7.99	Y	FA	Fawcett books New York
0200	The Stranger	VB	FIC	8.00	Y	VB	Vintage books New York
0378	Venice SS	ART	24.50	N	SS	Simon and Schuster	New York
079X	Second Wind	PU	MYS	24.95	N	PU	Putnam Publishing Group New York
0808	The Edge	JP	MYS	6.99	Y	JP	Jove Publications New York
1351	Dreamcatcher: A Novel	SC	HOR	19.60	N	SC	Scribner New York
1382	Treasure Chests	TA	ART	24.46	N	TA	Taunton Press Newtown CT
138X	Beloved PL	FIC	12.95	Y	PL	Plume	New York
2226	Harry Potter and the Prisoner of Azkaban	ST	SFI	13.96	N	ST	SchoLASTic Trade New York
2281	Van Gogh and Gauguin	WP	ART	21.00	N	WP	Westview Press Boulder CO
2766	Of Mice and Men	PE	FIC	6.95	Y	PE	Penguin USA New York
2908	Electric Light	FS	POE	14.00	N	FS	Farrar Straus and Giroux New York
3350	Group: Six People in Search of a Life	BP	PSY	10.40	Y	BP	Berkley Publishing Boston
3743	Nine Stories	LB	FIC	5.99	Y	LB	Lb books New York
3906	The Soul of a New Machine	BY	SCI	11.16	Y	BY	Back Bay books New York
5163	Travels with Charley	PE	TRA	7.95	Y	PE	Penguin USA New York
5790	Catch-22	SC	FIC	12.00	Y	SC	Scribner New York
6128	Jazz PL	FIC	12.95	Y	PL	Plume	New York
6328	Band of Brothers	TO	HIS	9.60	Y	TO	Touchstone books Westport CT
669X	A Guide to SQL	CT	CMP	37.95	Y	CT	Course Technology Boston
6908	Franny and Zooey	LB	FIC	5.99	Y	LB	Lb books New York
7405	East of Eden	PE	FIC	12.95	Y	PE	Penguin USA New York

7443	Harry Potter and the Goblet of Fire	ST	SFI	18.16	N	ST	SchoLASTic	
Trade	New York							
7559	The Fall	VB FIC	8.00	Y	VB	Vintage books	New York	
8092	Godel, Escher, Bach	BA PHI	14.00	Y	BA	Basic books	Boulder	
CO								
8720	When Rabbit Howls	JP PSY	6.29	Y	JP	Jove Publications	New	
York								
9611	Black House	RH HOR	18.81	N	RH	Random House	New York	
9627	Song of Solomon	PL FIC	14.00	Y	PL	Plume	New York	
9701	The Grapes of Wrath	PE FIC	13.00	Y	PE	Penguin USA	New	
York								
9882	Slay Ride	JP MYS	6.99	Y	JP	Jove Publications	New York	
9883	The Catcher in the Rye	LB FIC	5.99	Y	LB	Lb books	New	
York								
9931	To Kill a Mockingbird	HC FIC	18.00	N	HC	HarperCollins publishers		
New York								

22. Rewrite the previous query using the ON keyword. (5 points)

SQL Statement:

```
USE henry;

SELECT *
FROM book c
JOIN publisher p ON c.publisherCode = p.publisherCode;
```

Output:

#	bookCode	title	publisherCode	TYPE	price	paperback	publisherCode	publisherName	city
0180	A Deepness in the Sky	TB	SFI	7.19	Y	TB	Tor books	New York	
0189	Magic Terror	FA	HOR	7.99	Y	FA	Fawcett books	New York	
0200	The Stranger	VB	FIC	8.00	Y	VB	Vintage books	New York	
0378	Venice	SS ART	24.50	N	SS	Simon and Schuster	New York		
079X	Second Wind	PU	MYS	24.95	N	PU	Putnam Publishing Group	New	
York									
0808	The Edge	JP	MYS	6.99	Y	JP	Jove Publications	New York	
1351	Dreamcatcher: A Novel	SC	HOR	19.60	N	SC	Scribner	New York	
1382	Treasure Chests	TA ART	24.46	N	TA	Taunton Press	Newtown	CT	
138X	Beloved	PL FIC	12.95	Y	PL	Plume	New York		
2226	Harry Potter and the Prisoner of Azkaban					ST	SFI	13.96	N
SchoLASTic	Trade								ST
	New York								

2281	Van Gogh and Gauguin	WP	ART	21.00	N	WP	Westview Press	Boulder CO
2766	Of Mice and Men	PE	FIC	6.95	Y	PE	Penguin USA	New York
2908	Electric Light	FS	POE	14.00	N	FS	Farrar Straus and Giroux	New York
3350	Group: Six People in Search of a Life							
	Publishing							
	Boston							
3743	Nine Stories	LB	FIC	5.99	Y	LB	Lb books	New York
3906	The Soul of a New Machine		BY	SCI	11.16	Y	BY	Back Bay books
								New York
5163	Travels with Charley	PE	TRA	7.95	Y	PE	Penguin USA	New York
5790	Catch-22	SC	FIC	12.00	Y	SC	Scribner	New York
6128	Jazz	PL	FIC	12.95	Y	PL	Plume	New York
6328	Band of Brothers		TO	HIS	9.60	Y	TO	Touchstone books
	Westport CT							
669X	A Guide to SQL	CT	CMP	37.95	Y	CT	Course Technology	Boston
6908	Franny and Zooey	LB	FIC	5.99	Y	LB	Lb books	New York
7405	East of Eden	PE	FIC	12.95	Y	PE	Penguin USA	New York
7443	Harry Potter and the Goblet of Fire		ST	SFI	18.16	N	ST	SchoLASTic
	Trade							New York
7559	The Fall	VB	FIC	8.00	Y	VB	Vintage books	New York
8092	Godel, Escher, Bach	BA	PHI	14.00	Y	BA	Basic books	Boulder CO
8720	When Rabbit Howls	JP	PSY	6.29	Y	JP	Jove Publications	New York
9611	Black House	RH	HOR	18.81	N	RH	Random House	New York
9627	Song of Solomon	PL	FIC	14.00	Y	PL	Plume	New York
9701	The Grapes of Wrath	PE	FIC	13.00	Y	PE	Penguin USA	New York
9882	Slay Ride	JP	MYS	6.99	Y	JP	Jove Publications	New York
9883	The Catcher in the Rye	LB	FIC	5.99	Y	LB	Lb books	New York
9931	To Kill a Mockingbird	HC	FIC	18.00	N	HC	HarperCollins publishers	New York

23. Retrieve the title from the book relation and the city from the publisher relation using a JOIN query. Use aliases in your query. Order the result by title. **(5 points)**

SQL Statement:

```
USE henry;
```

```
SELECT title, city
FROM book c
JOIN publisher p ON c.publisherCode = p.publisherCode
ORDER BY title;
```

Output:

```
# title    city
A Deepness in the Sky    New York
A Guide to SQL    Boston
Band of Brothers    Westport CT
Beloved    New York
Black House    New York
Catch-22    New York
Dreamcatcher: A Novel    New York
East of Eden    New York
Electric Light    New York
Franny and Zooey    New York
Godel, Escher, Bach    Boulder CO
Group: Six People in Search of a Life    Boston
Harry Potter and the Goblet of Fire    New York
Harry Potter and the Prisoner of Azkaban    New York
Jazz    New York
Magic Terror    New York
Nine Stories    New York
Of Mice and Men    New York
Second Wind    New York
Slay Ride    New York
Song of Solomon    New York
The Catcher in the Rye    New York
The Edge    New York
The Fall    New York
The Grapes of Wrath    New York
The Soul of a New Machine    New York
The Stranger    New York
To Kill a Mockingbird    New York
Travels with Charley    New York
Treasure Chests    Newtown CT
Van Gogh and Gauguin    Boulder CO
Venice    New York
When Rabbit Howls    New York
```

24. Retrieve the title from the book relation and the author lastName from the author relation. Order by author lastName. Use aliases in your query. **This will involve JOINING the book, author and wrote relations. (5 points)**

SQL Statement:**USE henry;****SELECT title, lastName****FROM book b****JOIN wrote w ON b.bookCode = w.bookCode****JOIN author a ON a.authorNum = w.authorNum****ORDER BY lastName;****Output:**

#	title	lastName
	Band of Brothers	Ambrose
	The Stranger	Camus
	The Fall	Camus
	When Rabbit Howls	Chase
	Van Gogh and Gauguin	Collins
	Van Gogh and Gauguin	Collins, Jr.
	Second Wind	Francis
	The Edge	Francis
	Slay Ride	Francis
	Electric Light	Heaney
	Catch-22	Heller
	Godel, Escher, Bach	Hofstadter
	The Soul of a New Machine	Kidder
	Dreamcatcher: A Novel	King
	Black House	King
	To Kill a Mockingbird	Lee
	Jazz	Morrison
	Beloved	Morrison
	Song of Solomon	Morrison
	Treasure Chests	O'Rourke
	A Guide to SQL	Pratt
	Harry Potter and the Prisoner of Azkaban	Rowling
	Harry Potter and the Goblet of Fire	Rowling
	Nine Stories	Salinger
	Franny and Zooey	Salinger
	The Catcher in the Rye	Salinger
	Treasure Chests	Schleining
	Group: Six People in Search of a Life	Solotaroff
	East of Eden	Steinbeck
	The Grapes of Wrath	Steinbeck
	Travels with Charley	Steinbeck
	Of Mice and Men	Steinbeck
	Black House	Straub
	Magic Terror	Straub
	A Deepness in the Sky	Vintage
	Venice	Wills

25. Retrieve the title from the book relation and branchNum and onHand from the inventory relation. Use aliases in your query. Order the result by title. **(5 points)**

SQL Statement:

USE henry;

**SELECT title, branchNum, onHand
FROM book b, inventory i
WHERE b.bookCode = i.bookCode
ORDER BY title;**

Output:

#	title	branchNum	onHand
	A Deepness in the Sky	1	2
	A Guide to SQL	1	1
	Band of Brothers	2	2
	Beloved	2	3
	Black House	1	2
	Catch-22	4	2
	Dreamcatcher: A Novel	2	4
	Dreamcatcher: A Novel	3	2
	East of Eden	3	2
	Electric Light	1	3
	Electric Light	4	1
	Franny and Zooey	2	2
	Godel, Escher, Bach	3	1
	Group: Six People in Search of a Life	1	2
	Harry Potter and the Goblet of Fire	4	1
	Harry Potter and the Prisoner of Azkaban	1	3
	Harry Potter and the Prisoner of Azkaban	3	2
	Harry Potter and the Prisoner of Azkaban	4	1
	Jazz	2	4
	Jazz	3	3
	Magic Terror	2	2
	Nine Stories	2	1
	Of Mice and Men	3	2
	Second Wind	2	1
	Second Wind	3	2
	Second Wind	4	3
	Slay Ride	3	3
	Song of Solomon	3	5
	Song of Solomon	4	2
	The Catcher in the Rye	2	3
	The Catcher in the Rye	4	2
	The Edge	2	1
	The Fall	2	
	The Grapes of Wrath	1	2
	The Grapes of Wrath	2	1
	The Grapes of Wrath	3	3
	The Grapes of Wrath	4	2
	The Soul of a New Machine	2	1

The Soul of a New Machine	3	2
The Stranger	1	1
The Stranger	2	3
To Kill a Mockingbird	1	2
Travels with Charley	1	1
Treasure Chests	2	1
Van Gogh and Gauguin	4	3
Venice	3	2
When Rabbit Howls	1	3

26. Retrieve the title from the book relation, the branchName from the branch relation and number of copies onHand from the inventory relation. Use aliases in your query. Order the result by title ascending. (5 points)

SQL Statement:

USE henry;

```
SELECT title, branchName, onHand
FROM book b, inventory i, branch br
WHERE b.bookCode = i.bookCode AND br.branchNum = i.branchNum
ORDER BY title;
```

Output:

# title	branchName	onHand
A Deepness in the Sky	Henry Downtown2	
A Guide to SQL	Henry Downtown1	
Band of Brothers	Henry On The Hill	2
Beloved	Henry On The Hill	3
Black House	Henry Downtown2	
Catch-22	Henry Eastshore	2
Dreamcatcher: A Novel	Henry On The Hill	4
Dreamcatcher: A Novel	Henry Brentwood2	
East of Eden	Henry Brentwood2	
Electric Light	Henry Eastshore	1
Electric Light	Henry Downtown3	
Franny and Zooey	Henry On The Hill	2
Godel, Escher, Bach	Henry Brentwood1	
Group: Six People in Search of a Life	Henry Downtown2	
Harry Potter and the Goblet of Fire	Henry Eastshore	1
Harry Potter and the Prisoner of Azkaban	Henry Downtown3	
Harry Potter and the Prisoner of Azkaban	Henry Brentwood2	
Harry Potter and the Prisoner of Azkaban	Henry Eastshore	1
Jazz	Henry Brentwood3	
Jazz	Henry On The Hill	4
Magic Terror	Henry On The Hill	2
Nine Stories	Henry On The Hill	1
Of Mice and Men	Henry Brentwood2	
Second Wind	Henry On The Hill	1
Second Wind	Henry Brentwood2	
Second Wind	Henry Eastshore	3

Slay Ride	Henry Brentwood	3
Song of Solomon	Henry Brentwood	5
Song of Solomon	Henry Eastshore	2
The Catcher in the Rye	Henry Eastshore	2
The Catcher in the Rye	Henry On The Hill	3
The Edge	Henry On The Hill	1
The Fall	Henry On The Hill	2
The Grapes of Wrath	Henry Downtown	2
The Grapes of Wrath	Henry On The Hill	1
The Grapes of Wrath	Henry Eastshore	2
The Grapes of Wrath	Henry Brentwood	3
The Soul of a New Machine	Henry Brentwood	2
The Soul of a New Machine	Henry On The Hill	1
The Stranger	Henry On The Hill	3
The Stranger	Henry Downtown	1
To Kill a Mockingbird	Henry Downtown	2
Travels with Charley	Henry Downtown	1
Treasure Chests	Henry On The Hill	1
Van Gogh and Gauguin	Henry Eastshore	3
Venice	Henry Brentwood	2
When Rabbit Howls	Henry Downtown	3

27. Retrieve the title from the book relation and compute the number of copies of the title that all branches have on hand. Name this computed column 'Inventory' **Hint: You will need to join book and inventory and do an aggregate query.** Use aliases in your query. Order the result by the total number of copies of the book in descending order. Show the first two rows of your result. **(5 points)**

SQL Statement:

```
SELECT title, SUM(onHand) AS inventory
FROM book b
JOIN inventory i ON b.bookCode=i.bookCode
GROUP BY b.title
ORDER BY inventory DESC;
```

Output:

```
# title    inventory
The Grapes of Wrath    8
Jazz                7
```

28. Retrieve the first name and last name from the author relation and the title from the book relation for all paperback books in the book relation. Order the result by the author last name and title. **(5 points)**

SQL Statement:

```
USE henry;
```

```
SELECT firstName, lastName, title
FROM book b, author a, wrote w
WHERE w.authorNum = a.authorNum AND b.bookCode = w.bookCode AND paperback = "Y"
```

ORDER BY lastName, title;

Output:

#	firstName	lastName	title
	Stephen E.	Ambrose	Band of Brothers
	Albert	Camus	The Fall
	Albert	Camus	The Stranger
	Truddi	Chase	When Rabbit Howls
	Dick	Francis	Slay Ride
	Dick	Francis	The Edge
	Joseph	Heller	Catch-22
	Douglas R.	Hofstadter	Godel, Escher, Bach
	Tracy	Kidder	The Soul of a New Machine
	Toni	Morrison	Beloved
	Toni	Morrison	Jazz
	Toni	Morrison	Song of Solomon
	Philip	Pratt	A Guide to SQL
	J.D.	Salinger	Franny and Zooey
	J.D.	Salinger	Nine Stories
	J.D.	Salinger	The Catcher in the Rye
	Paul	Solotaroff	Group: Six People in Search of a Life
	John	Steinbeck	East of Eden
	John	Steinbeck	Of Mice and Men
	John	Steinbeck	The Grapes of Wrath
	John	Steinbeck	Travels with Charley
	Peter	Straub	Magic Terror
	Vernor	Vintage	A Deepness in the Sky

29. Insert a new branch into the branch relation with the following data branch number = 5, branch name = Henry Lexington Green, branch location = 127 South Road, numEmployees = 7. Then write the query to show all of the branches in the branch relation. **(4 points)**

SQL Statement:

USE henry;

INSERT INTO branch

VALUES(5, "Henry Lexington Green", "127 South Road", 7);

SELECT * **FROM** branch;

Output:

#	branchNum	branchName	branchLocation	numEmployees
1	Henry	Downtown	16 Riverview	10
2	Henry	On The Hill	1289 Bedford	6
3	Henry	Brentwood	Brentwood Mall	15
4	Henry	Eastshore	Eastshore Mall	9
5	Henry	Lexington Green	127 South Road	7

30. The Henry Downtown branch moved to 184 St. John's Way. Update the branch table with the new address.
(3 points)

SQL Statement:

USE henry;

UPDATE branch

SET branchLocation="184 St. John's Way"

WHERE branchNum=1;

SELECT * FROM branch;

Output:

#	branchNum	branchName	branchLocation	numEmployees
1		Henry Downtown	184 St. John's Way	10
2		Henry On The Hill	1289 Bedford	6
3		Henry Brentwood	Brentwood Mall	15
4		Henry Eastshore	Eastshore Mall	9
5		Henry Lexington Green	127 South Road	7