Chessica Nation

CS-300-ON

Database Management Systems

21 Sept 2022

GitHub: <https://github.com/ChessicaNation/CS300_CBN>

**Queries**

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

**SQL Statement:**

SELECT firstName, lastName

FROM author;

**Output:**

**firstName** **lastName**

Toni Morrison

Paul Solotaroff

Vernor Vintage

Dick Francis

Peter Straub

Stephen King

Philip Pratt

Truddi Chase

Bradley Collins

Joseph Heller

Gary Wills

Douglas R. Hofstadter

Harper Lee

Stephen E. Ambrose

J.K. Rowling

J.D. Salinger

Seamus Heaney

Albert Camus

Bradley Collins, Jr.

John Steinbeck

Riva Castelman

Barbara Owen

Randy O'Rourke

Tracy Kidder

Lon Schleining

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

**SQL Statement:**

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

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

**SQL Statement:**

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

1. 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:**

SELECT title, price, (price\*.75) 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

1. 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:**

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

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

**SQL Statement:**

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

1. 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:**

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

1. 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:**

SELECT bookCode, onHand

FROM inventory

WHERE onHand BETWEEN 2 AND 4;

**Output:**

**bookCode onHand**

180 2

189 2

200 3

378 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

1. 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:**

SELECT title, type

FROM book

WHERE type IN('SFI', 'HOR', 'ART', 'PSY')

ORDER BY type ASC;

**Output:**

**title type**

Venice ART

Treasure Chests ART

Van Gogh and Gauguin ART

Magic Terror HOR

Dreamcatcher: A Novel HOR

1. 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:**

SELECT title

FROM book

WHERE title LIKE('The%')

ORDER BY title ASC;

**Output:**

**title**

The Catcher in the Rye

The Edge

The Fall

The Grapes of Wrath

The Soul of a New Machine

The Stranger

1. 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:**

SELECT title

FROM book

WHERE type IS NULL

ORDER BY title ASC;

**Output:**

Empty – all books have a type

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

**SQL Statement:**

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.

1. 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:**

SELECT title, type

FROM book

ORDER BY type ASC, title ASC;

**Output:**

**title type**

Treasure Chests ART

Van Gogh and Gauguin ART

Venice ART

A Guide to SQL CMP

Beloved FIC

1. 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:**

SELECT COUNT(b.publisherCode) AS Penguin\_Books

FROM book b, publisher p

WHERE b.publisherCode = p.publisherCode AND b.publisherCode = 'PE';

**Output:**

**Penguin\_Books**

4

1. Retrieve the publisherCode and the number of books from that 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:**

SELECT publisherCode, COUNT(title) AS Book\_Count

FROM book

GROUP BY publisherCode

ORDER BY Book\_Count DESC;

**Output:**

**publisherCode Book\_Count**

PE 4

JP 3

LB 3

PL 3

SC 2

1. 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:**

SELECT publisherCode, COUNT(title) AS Book\_Count

FROM book

GROUP BY publisherCode

HAVING Book\_Count >= 3

ORDER BY Book\_Count DESC;

**Output:**

**publisherCode Book\_Count**

PE 4

JP 3

LB 3

PL 3

1. 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:**

SELECT COUNT(title) AS Cheap\_Books

FROM book

WHERE price <= 20;

**Output:**

**Cheap\_Books**

28

1. 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 = (

SELECT MAX(price)

FROM book

);

**Output:**

**title**

A Guide to SQL

1. 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:**

SELECT title

FROM book

WHERE price = (

SELECT MIN(price)

FROM book

);

**Output:**

**title**

Nine Stories

Franny and Zooey

The Catcher in the Rye

1. 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:**

SELECT title

FROM book b, publisher p

WHERE b.publisherCode = p.publisherCode AND p.publisherCode IN (

SELECT p.publisherCode

FROM publisher p

WHERE city NOT IN ('New York')

)

ORDER BY city ASC;

**Output:**

**title**

Group: Six People in Search of a Life

A Guide to SQL

Van Gogh and Gauguin

Godel, Escher, Bach

Treasure Chests

Band of Brothers

1. 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** |
| **180** | A Deepness in the Sky | TB | SFI | 7.19 | Y | TB | Tor books | New York |
| **189** | Magic Terror | FA | HOR | 7.99 | Y | FA | Fawcett books | New York |
| **200** | The Stranger | VB | FIC | 8.00 | Y | VB | Vintage books | New York |
| **378** | 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 |
| **808** | 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 |

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

**SQL Statement:**

SELECT \*

FROM book b

JOIN publisher p ON b.publisherCode = p.publisherCode;

**Output:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **bookCode** | **title** | **publisherCode** | **TYPE** | **price** | **paperback** | **publisherCode** | **publisherName** | **city** |
| **180** | A Deepness in the Sky | TB | SFI | 7.19 | Y | TB | Tor books | New York |
| **189** | Magic Terror | FA | HOR | 7.99 | Y | FA | Fawcett books | New York |
| **200** | The Stranger | VB | FIC | 8.00 | Y | VB | Vintage books | New York |
| **378** | 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 |
| **808** | 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 |

1. 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:**

SELECT title, city

FROM book b

JOIN publisher p ON b.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

1. 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:**

SELECT title, lastName

FROM author a

JOIN wrote w ON a.authorNum = w.authorNum

JOIN book b ON b.bookCode = w.bookCode

ORDER BY lastName;

**Output:**

**title lastName**

Band of Brothers Ambrose

The Fall Camus

The Stranger Camus

When Rabbit Howls Chase

Van Gogh and Gauguin Collins

Van Gogh and Gauguin Collins, Jr.

Second Wind Francis

Slay Ride Francis

The Edge Francis

Electric Light Heaney

Catch-22 Heller

Godel, Escher, Bach Hofstadter

The Soul of a New Machine Kidder

Black House King

Dreamcatcher: A Novel King

To Kill a Mockingbird Lee

Beloved Morrison

Jazz Morrison

Song of Solomon Morrison

Treasure Chests O'Rourke

A Guide to SQL Pratt

Harry Potter and the Goblet of Fire Rowling

Harry Potter and the Prisoner of Azkaban Rowling

Franny and Zooey Salinger

Nine Stories Salinger

The Catcher in the Rye Salinger

Treasure Chests Schleining

Group: Six People in Search of a Life Solotaroff

East of Eden Steinbeck

Of Mice and Men Steinbeck

The Grapes of Wrath Steinbeck

Travels with Charley Steinbeck

Black House Straub

Magic Terror Straub

A Deepness in the Sky Vintage

Venice Wills

1. 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:**

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 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

1. 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:**

SELECT title, branchName, onHand

FROM book b

JOIN inventory i ON b.bookCode = i.bookCode

JOIN branch br ON i.branchNum = br.branchNum

ORDER BY title;

**Output:**

**title branchName onHand**

A Deepness in the Sky Henry Downtown 2

A Guide to SQL Henry Downtown 1

Band of Brothers Henry On The Hill 2

Beloved Henry On The Hill 3

Black House Henry Downtown 2

Catch-22 Henry Eastshore 2

Dreamcatcher: A Novel Henry On The Hill 4

Dreamcatcher: A Novel Henry Brentwood 2

East of Eden Henry Brentwood 2

Electric Light Henry Downtown 3

Electric Light Henry Eastshore 1

Franny and Zooey Henry On The Hill 2

Godel, Escher, Bach Henry Brentwood 1

Group: Six People in Search of a Life Henry Downtown 2

Harry Potter and the Goblet of Fire Henry Eastshore 1

Harry Potter and the Prisoner of Azkaban Henry Downtown 3

Harry Potter and the Prisoner of Azkaban Henry Eastshore 1

Harry Potter and the Prisoner of Azkaban Henry Brentwood 2

Jazz Henry On The Hill 4

Jazz Henry Brentwood 3

Magic Terror Henry On The Hill 2

Nine Stories Henry On The Hill 1

Of Mice and Men Henry Brentwood 2

Second Wind Henry Eastshore 3

Second Wind Henry On The Hill 1

Second Wind Henry Brentwood 2

Slay Ride Henry Brentwood 3

Song of Solomon Henry Eastshore 2

Song of Solomon Henry Brentwood 5

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 On The Hill 1

The Grapes of Wrath Henry Brentwood 3

The Grapes of Wrath Henry Downtown 2

The Grapes of Wrath Henry Eastshore 2

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

1. 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 title

ORDER BY Inventory DESC;

**Output:**

**title Inventory**

The Grapes of Wrath 8

Song of Solomon 7

1. 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:**

SELECT firstName, lastName, title

FROM author a

JOIN wrote w ON a.authorNum = w.authorNum

JOIN book b ON w.bookCode = b.bookCode

WHERE 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

1. 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:**

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

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

**SQL Statement:**

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