**Individual Project 4**

**DS160-01**

**Introduction to Data Science**

**Spring 2022**

**Writing SQL Queries(50 points)**

**Goal:** The goal of this project is to provide you practice for writing simple SQL queries.

**Instructions:** Create a new .sql file titled **IP4\_XXX.sql**, where **XXX** are your initials; and rename this file to **IP4\_XXX.docx**. Also create a GitHub repository titled **IP4\_XXX** to which you can push both your .sql file and this document.

Attached to the assignment are two .sql files. HenryBooksCreate.sql which will create the database on you MySQL server and HenryBooksFill.sql which will fill it with data.

| henry1 | |
| --- | --- |
| 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 |

You will form the following queries for the Henry Books database and provide the statement and the output in this document. All of your SQL statements should also be in the .sql file. Use a comment (# mark) in your .sql file to number the statements according to this document. Each problem is marked with its point worth.

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:**

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

| henry2 | |
| --- | --- |
| 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 |

**SQL Statement:**

**SELECT title, type**

**FROM book;**

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

| henry3 | |
| --- | --- |
| 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 |

**SQL Statement:**

**SELECT DISTINCT publisherCode**

**FROM book;**

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 (**LIMIT 5**). **(3 points)**

**SQL Statement:**

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

**AS discount**

**FROM book**

**LIMIT 5;**

**Output:**

1. Retrieve the title and price for any book whose price is higher than $20.00 in the book relation. Show the full result. **(3 points)**

| henry4 | | |
| --- | --- | --- |
| 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 |

| henry5 | |
| --- | --- |
| 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 |

**SQL Statement:**

**SELECT title, price**

**FROM book**

**WHERE price >= 20;**

**Output:**

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:**

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)**

| henry6 | |
| --- | --- |
| 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 |

| henry7 |
| --- |
| publisherName |
| Arkham House |
| Basic books |
| Berkley Publishing |
| Course Technology |
| Jeremy P. Tarcher |
| McPherson and Co. |
| Taunton Press |
| Touchstone books |
| Westview Press |

**SQL Statement:**

**SELECT publisherName**

**FROM publisher**

**WHERE city !='New York';**

**Output:**

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)**

| henry8 | |
| --- | --- |
| 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 |

**SQL Statement:**

**SELECT bookCode, onHand**

**FROM inventory**

**WHERE onHand BETWEEN 2 and 4;**

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 publisherCode, COUNT(publisherCode) AS 'Penguin books'**

**FROM book**

**WHERE publisherCode ='PE'**

| henry9 | |
| --- | --- |
| publisherCode | Penguin books |
| PE | 4 |

| henry10 |
| --- |
| COUNT(bookCode) |
| 28 |

**GROUP BY publisherCode;**

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(bookCode)**

**FROM book**

**WHERE price<=20;**

**Output:**

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 (WHERE clause). Order does not matter. **(5 points)**

| henry11 | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| bookCode | title | publisherCode | TYPE | price | paperback | publisherCode | publisherName | city |
| **8092** | Godel, Escher, Bach | BA | PHI | 14.00 | Y | BA | Basic books | Boulder CO |
| **3350** | Group: Six People in Search of a Life | BP | PSY | 10.40 | Y | BP | Berkley Publishing | Boston |
| **3906** | The Soul of a New Machine | BY | SCI | 11.16 | Y | BY | Back Bay books | New York |
| 669X | A Guide to SQL | CT | CMP | 37.95 | Y | CT | Course Technology | Boston |
| **189** | Magic Terror | FA | HOR | 7.99 | Y | FA | Fawcett books | New York |
| **2908** | Electric Light | FS | POE | 14.00 | N | FS | Farrar Straus and Giroux | New York |
| **9931** | To Kill a Mockingbird | HC | FIC | 18.00 | N | HC | HarperCollins publishers | New York |
| **808** | The Edge | JP | MYS | 6.99 | Y | JP | Jove Publications | New York |
| **8720** | When Rabbit Howls | JP | PSY | 6.29 | Y | JP | Jove Publications | New York |
| **9882** | Slay Ride | JP | MYS | 6.99 | Y | JP | Jove Publications | New York |
| **3743** | Nine Stories | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **6908** | Franny and Zooey | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **9883** | The Catcher in the Rye | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **2766** | Of Mice and Men | PE | FIC | 6.95 | Y | PE | Penguin USA | New York |
| **5163** | Travels with Charley | PE | TRA | 7.95 | Y | PE | Penguin USA | New York |
| **7405** | East of Eden | PE | FIC | 12.95 | Y | PE | Penguin USA | New York |
| **9701** | The Grapes of Wrath | PE | FIC | 13.00 | Y | PE | Penguin USA | New York |
| 138X | Beloved | PL | FIC | 12.95 | Y | PL | Plume | New York |
| **6128** | Jazz | PL | FIC | 12.95 | Y | PL | Plume | New York |
| **9627** | Song of Solomon | PL | FIC | 14.00 | Y | PL | Plume | New York |
| 079X | Second Wind | PU | MYS | 24.95 | N | PU | Putnam Publishing Group | New York |
| **9611** | Black House | RH | HOR | 18.81 | N | RH | Random House | New York |
| **1351** | Dreamcatcher: A Novel | SC | HOR | 19.60 | N | SC | Scribner | New York |
| **5790** | Catch-22 | SC | FIC | 12.00 | Y | SC | Scribner | New York |
| **378** | Venice | SS | ART | 24.50 | N | SS | Simon and Schuster | New York |
| **2226** | Harry Potter and the Prisoner of Azkaban | ST | SFI | 13.96 | N | ST | SchoLASTic Trade | New York |
| **7443** | Harry Potter and the Goblet of Fire | ST | SFI | 18.16 | N | ST | SchoLASTic Trade | New York |
| **1382** | Treasure Chests | TA | ART | 24.46 | N | TA | Taunton Press | Newtown CT |
| **180** | A Deepness in the Sky | TB | SFI | 7.19 | Y | TB | Tor books | New York |
| **6328** | Band of Brothers | TO | HIS | 9.60 | Y | TO | Touchstone books | Westport CT |
| **200** | The Stranger | VB | FIC | 8.00 | Y | VB | Vintage books | New York |
| **7559** | The Fall | VB | FIC | 8.00 | Y | VB | Vintage books | New York |
| **2281** | Van Gogh and Gauguin | WP | ART | 21.00 | N | WP | Westview Press | Boulder CO |

**SQL Statement:**

**SELECT \* FROM book**

**JOIN publisher AS publ**

**WHERE publ.publisherCode = book.publisherCode;**

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

**SQL Statement:**

**SELECT \* FROM book**

| henry12 | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| bookCode | title | publisherCode | TYPE | price | paperback | publisherCode | publisherName | city |
| **8092** | Godel, Escher, Bach | BA | PHI | 14.00 | Y | BA | Basic books | Boulder CO |
| **3350** | Group: Six People in Search of a Life | BP | PSY | 10.40 | Y | BP | Berkley Publishing | Boston |
| **3906** | The Soul of a New Machine | BY | SCI | 11.16 | Y | BY | Back Bay books | New York |
| 669X | A Guide to SQL | CT | CMP | 37.95 | Y | CT | Course Technology | Boston |
| **189** | Magic Terror | FA | HOR | 7.99 | Y | FA | Fawcett books | New York |
| **2908** | Electric Light | FS | POE | 14.00 | N | FS | Farrar Straus and Giroux | New York |
| **9931** | To Kill a Mockingbird | HC | FIC | 18.00 | N | HC | HarperCollins publishers | New York |
| **808** | The Edge | JP | MYS | 6.99 | Y | JP | Jove Publications | New York |
| **8720** | When Rabbit Howls | JP | PSY | 6.29 | Y | JP | Jove Publications | New York |
| **9882** | Slay Ride | JP | MYS | 6.99 | Y | JP | Jove Publications | New York |
| **3743** | Nine Stories | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **6908** | Franny and Zooey | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **9883** | The Catcher in the Rye | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **2766** | Of Mice and Men | PE | FIC | 6.95 | Y | PE | Penguin USA | New York |
| **5163** | Travels with Charley | PE | TRA | 7.95 | Y | PE | Penguin USA | New York |
| **7405** | East of Eden | PE | FIC | 12.95 | Y | PE | Penguin USA | New York |
| **9701** | The Grapes of Wrath | PE | FIC | 13.00 | Y | PE | Penguin USA | New York |
| 138X | Beloved | PL | FIC | 12.95 | Y | PL | Plume | New York |
| **6128** | Jazz | PL | FIC | 12.95 | Y | PL | Plume | New York |
| **9627** | Song of Solomon | PL | FIC | 14.00 | Y | PL | Plume | New York |
| 079X | Second Wind | PU | MYS | 24.95 | N | PU | Putnam Publishing Group | New York |
| **9611** | Black House | RH | HOR | 18.81 | N | RH | Random House | New York |
| **1351** | Dreamcatcher: A Novel | SC | HOR | 19.60 | N | SC | Scribner | New York |
| **5790** | Catch-22 | SC | FIC | 12.00 | Y | SC | Scribner | New York |
| **378** | Venice | SS | ART | 24.50 | N | SS | Simon and Schuster | New York |
| **2226** | Harry Potter and the Prisoner of Azkaban | ST | SFI | 13.96 | N | ST | SchoLASTic Trade | New York |
| **7443** | Harry Potter and the Goblet of Fire | ST | SFI | 18.16 | N | ST | SchoLASTic Trade | New York |
| **1382** | Treasure Chests | TA | ART | 24.46 | N | TA | Taunton Press | Newtown CT |
| **180** | A Deepness in the Sky | TB | SFI | 7.19 | Y | TB | Tor books | New York |
| **6328** | Band of Brothers | TO | HIS | 9.60 | Y | TO | Touchstone books | Westport CT |
| **200** | The Stranger | VB | FIC | 8.00 | Y | VB | Vintage books | New York |
| **7559** | The Fall | VB | FIC | 8.00 | Y | VB | Vintage books | New York |
| **2281** | Van Gogh and Gauguin | WP | ART | 21.00 | N | WP | Westview Press | Boulder CO |

**JOIN publisher AS publ**

**ON publ.publisherCode = book.publisherCode;**

**Output:**

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)**

| henry13 | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| bookCode | title | publisherCode | TYPE | price | paperback | publisherCode | publisherName | city |
| **8092** | Godel, Escher, Bach | BA | PHI | 14.00 | Y | BA | Basic books | Boulder CO |
| **3350** | Group: Six People in Search of a Life | BP | PSY | 10.40 | Y | BP | Berkley Publishing | Boston |
| **3906** | The Soul of a New Machine | BY | SCI | 11.16 | Y | BY | Back Bay books | New York |
| 669X | A Guide to SQL | CT | CMP | 37.95 | Y | CT | Course Technology | Boston |
| **189** | Magic Terror | FA | HOR | 7.99 | Y | FA | Fawcett books | New York |
| **2908** | Electric Light | FS | POE | 14.00 | N | FS | Farrar Straus and Giroux | New York |
| **9931** | To Kill a Mockingbird | HC | FIC | 18.00 | N | HC | HarperCollins publishers | New York |
| **808** | The Edge | JP | MYS | 6.99 | Y | JP | Jove Publications | New York |
| **8720** | When Rabbit Howls | JP | PSY | 6.29 | Y | JP | Jove Publications | New York |
| **9882** | Slay Ride | JP | MYS | 6.99 | Y | JP | Jove Publications | New York |
| **3743** | Nine Stories | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **6908** | Franny and Zooey | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **9883** | The Catcher in the Rye | LB | FIC | 5.99 | Y | LB | Lb books | New York |
| **2766** | Of Mice and Men | PE | FIC | 6.95 | Y | PE | Penguin USA | New York |
| **5163** | Travels with Charley | PE | TRA | 7.95 | Y | PE | Penguin USA | New York |
| **7405** | East of Eden | PE | FIC | 12.95 | Y | PE | Penguin USA | New York |
| **9701** | The Grapes of Wrath | PE | FIC | 13.00 | Y | PE | Penguin USA | New York |
| 138X | Beloved | PL | FIC | 12.95 | Y | PL | Plume | New York |
| **6128** | Jazz | PL | FIC | 12.95 | Y | PL | Plume | New York |
| **9627** | Song of Solomon | PL | FIC | 14.00 | Y | PL | Plume | New York |
| 079X | Second Wind | PU | MYS | 24.95 | N | PU | Putnam Publishing Group | New York |
| **9611** | Black House | RH | HOR | 18.81 | N | RH | Random House | New York |
| **1351** | Dreamcatcher: A Novel | SC | HOR | 19.60 | N | SC | Scribner | New York |
| **5790** | Catch-22 | SC | FIC | 12.00 | Y | SC | Scribner | New York |
| **378** | Venice | SS | ART | 24.50 | N | SS | Simon and Schuster | New York |
| **2226** | Harry Potter and the Prisoner of Azkaban | ST | SFI | 13.96 | N | ST | SchoLASTic Trade | New York |
| **7443** | Harry Potter and the Goblet of Fire | ST | SFI | 18.16 | N | ST | SchoLASTic Trade | New York |
| **1382** | Treasure Chests | TA | ART | 24.46 | N | TA | Taunton Press | Newtown CT |
| **180** | A Deepness in the Sky | TB | SFI | 7.19 | Y | TB | Tor books | New York |
| **6328** | Band of Brothers | TO | HIS | 9.60 | Y | TO | Touchstone books | Westport CT |
| **200** | The Stranger | VB | FIC | 8.00 | Y | VB | Vintage books | New York |
| **7559** | The Fall | VB | FIC | 8.00 | Y | VB | Vintage books | New York |
| **2281** | Van Gogh and Gauguin | WP | ART | 21.00 | N | WP | Westview Press | Boulder CO |

**SQL Statement:**

**SELECT title, city**

**FROM book**

**JOIN publisher AS pub**

**ON pub.publisherCode = book.publisherCode**

**ORDER BY title;**

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)**

| henry14 | | |
| --- | --- | --- |
| 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 |

**SQL Statement:**

**SELECT title, branchNum, onHand**

**FROM book**

**JOIN inventory AS inv**

**ON book.bookCode = inv.bookCode**

**ORDER BY title;**

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)**

| henry15 | |
| --- | --- |
| title | Inventory |
| The Grapes of Wrath | 8 |
| Song of Solomon | 7 |

**SQL Statement:**

**SELECT title, SUM(onHand) AS Inventory**

**FROM inventory AS inv**

**JOIN book AS b**

**ON b.bookCode = inv.bookCode**

**GROUP BY title**

**ORDER BY Inventory DESC**

**LIMIT 2;**

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)**

| henry16 | | |
| --- | --- | --- |
| 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 |

| henry16-1 | | |
| --- | --- | --- |
| 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 |

**SQL Statement:**

**SELECT firstName, lastName, title**

**FROM author**

**JOIN wrote**

**ON author.authorNum = wrote.authorNum**

**JOIN book**

**ON book.bookCode = wrote.bookCode**

**WHERE paperback='Y'**

**ORDER BY lastName, title;**

**BONUS (5 points):**

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:**

**Output:**