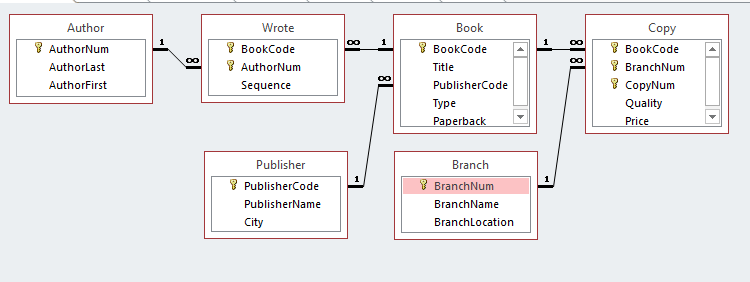
SQL Practice using MySQL Workbench

1. Create a new database called ShopAroundCorner
2. Following is the design of this database:



1. Following are the queries for creating various tables in this database. Run them on your newly created database and create these tables:

Create table Author(

AuthorNum int not null primary key,

AuthorLast varchar(255) not null,

AuthorFirst varchar(255) not null

);

Create table Publisher(

PublisherCode char(3) not null primary key,

PublisherName varchar(25) not null,

City varchar(20) not null

);

Create table Branch(

BranchNum int not null primary key,

BranchName varchar(50) not null,

BranchLocation varchar(50) not null

);

Create table Book(

BookCode char(4) not null primary key,

Title varchar(40) not null,

PublisherCode char(3) not null,

Type char(3) not null,

Paperback bit not null,

constraint Book\_Pub\_Key Foreign Key(PublisherCode)

References Publisher(PublisherCode)

On Update Cascade

);

Create table Wrote(

BookCode char(4) not null,

AuthorNum int not null,

Sequence int not null,

constraint Wrote\_PK Primary Key(BookCode, AuthorNum),

Constraint Wrote\_Author\_FK Foreign Key(AuthorNum)

References Author(AuthorNum)

On Update Cascade,

Constraint Wrote\_Book\_FK Foreign Key(BookCode)

References Book(BookCode)

On Update Cascade

);

1. Using the CREATE statement, create table COPY based on the following ER Schema:

COPY(*BookCode*, *BranchNum*, CopyNum, Quality, Price)

**CREATE table Copy(**

**BookCode char(4) not null,**

**BranchNum int not null,**

**CopyNum int not null,**

**Quality varchar(10) not null,**

**Price int not null,**

**Constraint Copy\_PK(BookCode, BranchNum, CopyNum),**

**Constraint Copy\_Book\_FK Foreign Key(BookCode) References Book(BookCode)**

**On Update Cascade, On Delete No Action**

**Constraint Copy\_Branch\_FK ForeignKey(BranchNum) References**

**Branch(BranchNum) On Update Cascade, On Delete No Action**

**);**

FK BookCode -> Book

FK BranchNum -> Branch

* Cascade all changes from primary key to foreign key
* Do not cascade deletions from primary key to foreign key
* BranchNum and CopyNum are all integer values and cannot be null
* BookCode is a 4-letter text value that cannot be null
* Quality will consist of text values
* Choose an appropriate data type for Price

1. Insert following data into respective tables:

Insert into Author values (1, 'Morrison', 'Toni');

Insert into Author values (2, 'Solotaroff', 'Paul');

Insert into Author values (3, 'Vintage', 'Vernor');

Insert into Author values (4, 'Francis', 'Dick');

Insert into Author values (5, 'Straub', 'Peter');

Insert into Author values (6, 'King', 'Stephen');

Insert into Author values (7, 'Pratt', 'Philip');

Insert into Author values (8, 'Chase', 'Trudi');

Insert into Author values (9, 'Collins', 'Bradley');

Insert into Author values (10, 'Heller', 'Joseph');

Insert into Author values (11, 'Wills', 'Gary');

Insert into Author values (12, 'Hofstadter', 'Douglas R.');

Insert into Author values (13, 'Lee', 'Harper');

Insert into Author values (14, 'Ambrose', 'Stephen E.');

Insert into Author values (15, 'Rowling', 'J.K.');

Insert into Author values (16, 'Salinger', 'J.D.');

Insert into Author values (17, 'Heaney', 'Seamus');

Insert into Author values (18, 'Camus', 'Albert');

Insert into Author values (19, 'Collins,Jr.', 'Bradley');

Insert into Author values (20, 'Steinbeck', 'John');

Insert into Author values (21, 'Castelman', 'Riva');

Insert into Author values (22, 'Owen', 'Barbara');

Insert into Author values (23, 'ORourke', 'Randy');

Insert into Author values (24, 'Kidder', 'Tracy');

Insert into Author values (25, 'Schleining', 'Lon');

Insert into Publisher values ('AH', 'Arkham House', 'Sauk City WI');

Insert into Publisher values ('AP', 'Arcade Publishing', 'New York');

Insert into Publisher values ('BA', 'Basic Books', 'Boulder CO');

Insert into Publisher values ('BP', 'Berkley Publishing', 'Boston');

Insert into Publisher values ('BY', 'Back Bay Books', 'New York');

Insert into Publisher values ('CT', 'Course Technology', 'Boston');

Insert into Publisher values ('FA', 'Fawcett Books', 'New York');

Insert into Publisher values ('FS', 'Farrar Straus & Giroux', 'New York');

Insert into Publisher values ('HC', 'HarperCollins Publishers', 'New York');

Insert into Publisher values ('JP', 'Jove Publications', 'New York');

Insert into Publisher values ('JT', 'Jeremy P. Tarcher', 'Los Angeles');

Insert into Publisher values ('LB', 'Lb Books', 'New York');

Insert into Publisher values ('MP', 'McPherson and Co.', 'Kingston');

Insert into Publisher values ('PE', 'Penguin USA', 'New York');

Insert into Publisher values ('PL', 'Plume', 'New York');

Insert into Publisher values ('PU', 'Putnam Publishing Group', 'New York');

Insert into Publisher values ('RH', 'Random House', 'New York');

Insert into Publisher values ('SB', 'Schoken Books', 'New York');

Insert into Publisher values ('SC', 'Scribner', 'New York');

Insert into Publisher values ('SS', 'Simon & Schuster', 'New York');

Insert into Publisher values ('ST', 'Scholastic Trade', 'New York');

Insert into Publisher values ('TA', 'Taunton Press', 'Newtown CT');

Insert into Publisher values ('TB', 'Tor Books', 'New York');

Insert into Publisher values ('TH', 'Thames and Hudson', 'New York');

Insert into Publisher values ('TO', 'Touchstone Books', 'Westport CT');

Insert into Publisher values ('VB', 'Vintage Books', 'New York');

Insert into Publisher values ('WN', 'W.W.Norton', 'New York');

Insert into Publisher values ('WP', 'Westview Press', 'Boulder CO');

1. Insert following data into table Branch:

|  |  |  |
| --- | --- | --- |
| 1 | SAC Downtown | 16 Riverview |
| 2 | SAC on the Hill | 1289 Bedford |
| 3 | SAC Brentwood | Brentwood Mall |
| 4 | SAC Eastshore | Eastshore Mall |

1. Insert the following data into respective tables:

Insert into Book values('0180', 'A Deepness in the Sky', 'TB', 'SFI', 1);

Insert into Book values('0189', 'Magic Terror', 'FA', 'HOR', 1);

Insert into Book values('0200', 'The Stranger', 'VB', 'FIC', 1);

Insert into Book values('0378', 'Venice', 'SS', 'ART', 0);

Insert into Book values('079X', 'Second Wind', 'PU', 'MYS', 0);

Insert into Book values('0808', 'The Edge', 'JP', 'MYS', 1);

Insert into Book values('1351', 'Dreamcatcher: A Novel', 'SC', 'HOR', 0);

Insert into Book values('1382', 'Treasure Chests', 'TA', 'ART', 0);

Insert into Book values('138X', 'Beloved', 'PL', 'FIC', 1);

Insert into Book values('2226', 'Harry Potter and the Prisoner of Azkaban', 'ST', 'SFI', 0);

Insert into Book values('2281', 'Van Gogh and Gauguin', 'WP', 'ART', 0);

Insert into Book values('2766', 'Of Mice and Men', 'PE', 'FIC', 1);

Insert into Book values('2908', 'Electric Light', 'FS', 'POE', 0);

Insert into Book values('3350', 'Group: Six People in Search of a Life', 'BP', 'PSY', 1);

Insert into Book values('3743', 'Nine Stories', 'LB', 'FIC', 1);

Insert into Book values('3906', 'The Soul of a New Machine', 'BY', 'SCI', 1);

Insert into Book values('5163', 'Travels with Charley', 'PE', 'TRA', 1);

Insert into Book values('5790', 'Catch-22', 'SC', 'FIC', 1);

Insert into Book values('6128', 'Jazz', 'PL', 'FIC', 1);

Insert into Book values('6328', 'Band of Brothers', 'TO', 'HIS', 1);

Insert into Book values('669X', 'A Guide to SQL', 'CT', 'CMP', 1);

Insert into Book values('6908', 'Franny and Zooey', 'LB', 'FIC', 1);

Insert into Book values('7405', 'East of Eden', 'PE', 'FIC', 1);

Insert into Book values('7443', 'Harry Potter and the Goblet of Fire', 'ST', 'SFI', 0);

Insert into Book values('7559', 'The Fall', 'VB', 'FIC', 1);

Insert into Book values('8092', 'Godel, Escher, Bach', 'BA', 'PHI', 1);

Insert into Book values('8720', 'When Rabbit Howls', 'JP', 'PSY', 1);

Insert into Book values('9611', 'Black House', 'RH', 'HOR', 0);

Insert into Book values('9627', 'Song of Solomon', 'PL', 'FIC', 1);

Insert into Book values('9701', 'The Grapes of Wrath', 'PE', 'FIC', 1);

Insert into Book values('9882', 'Slay Ride', 'JP', 'MYS', 1);

Insert into Book values('9883', 'The Catcher in the Rye', 'LB', 'FIC', 1);

Insert into Book values('9931', 'To Kill a Mockingbird', 'HC', 'FIC', 0);

Insert into Wrote values('0180', 3, 1);

Insert into Wrote values('0189', 5, 1);

Insert into Wrote values('0200', 18, 1);

Insert into Wrote values('0378', 11, 1);

Insert into Wrote values('079X', 4, 1);

Insert into Wrote values('0808', 4, 1);

Insert into Wrote values('1351', 6, 1);

Insert into Wrote values('1382', 23, 2);

Insert into Wrote values('1382', 25, 1);

Insert into Wrote values('138X', 1, 1);

Insert into Wrote values('2226', 15, 1);

Insert into Wrote values('2281', 9, 2);

Insert into Wrote values('2281', 19, 1);

Insert into Wrote values('2766', 20, 1);

Insert into Wrote values('2908', 17, 1);

Insert into Wrote values('3350', 2, 1);

Insert into Wrote values('3743', 16, 1);

Insert into Wrote values('3906', 24, 1);

Insert into Wrote values('5163', 20, 1);

Insert into Wrote values('5790', 10, 1);

Insert into Wrote values('6128', 1, 1);

Insert into Wrote values('6328', 14, 1);

Insert into Wrote values('669X', 7, 1);

Insert into Wrote values('6908', 16, 1);

Insert into Wrote values('7405', 20, 1);

Insert into Wrote values('7443', 15, 1);

Insert into Wrote values('7559', 18, 1);

Insert into Wrote values('8092', 12, 1);

Insert into Wrote values('8720', 8, 1);

Insert into Wrote values('9611', 5, 2);

Insert into Wrote values('9611', 6, 1);

Insert into Wrote values('9627', 1, 1);

Insert into Wrote values('9701', 20, 1);

Insert into Wrote values('9882', 4, 1);

Insert into Wrote values('9883', 16, 1);

Insert into Wrote values('9931', 13, 1);

Insert into Copy values('0180', 1, 1, 'Excellent', 7.19);

Insert into Copy values('0180', 1, 2, 'Excellent', 7.19);

Insert into Copy values('0189', 2, 1, 'Excellent', 7.99);

Insert into Copy values('0189', 2, 2, 'Good', 5.99);

Insert into Copy values('0200', 1, 1, 'Excellent', 8.00);

Insert into Copy values('0200', 2, 1, 'Excellent', 8.00);

Insert into Copy values('0200', 2, 2, 'Fair', 3.50);

Insert into Copy values('0200', 2, 3, 'Poor', 2.25);

Insert into Copy values('0378', 3, 1, 'Excellent', 24.50);

Insert into Copy values('0378', 3, 2, 'Excellent', 24.50);

Insert into Copy values('079X', 2, 1, 'Excellent', 25.95);

Insert into Copy values('079X', 3, 1, 'Excellent', 25.95);

Insert into Copy values('079X', 3, 2, 'Good', 19.95);

Insert into Copy values('079X', 4, 1, 'Excellent', 25.95);

Insert into Copy values('079X', 4, 2, 'Excellent', 25.95);

Insert into Copy values('079X', 4, 3, 'Good', 19.95);

Insert into Copy values('0808', 2, 1, 'Excellent', 7.99);

Insert into Copy values('1351', 2, 1, 'Excellent', 21.95);

Insert into Copy values('1351', 2, 2, 'Excellent', 21.95);

Insert into Copy values('1351', 2, 3, 'Excellent', 21.95);

Insert into Copy values('1351', 2, 4, 'Excellent', 21.95);

Insert into Copy values('1351', 3, 1, 'Excellent', 21.95);

Insert into Copy values('1351', 3, 2, 'Good', 13.95);

Insert into Copy values('1382', 2, 1, 'Good', 34.50);

Insert into Copy values('138X', 2, 1, 'Excellent', 12.95);

Insert into Copy values('138X', 2, 2, 'Excellent', 12.95);

Insert into Copy values('138X', 2, 3, 'Good', 6.95);

Insert into Copy values('2226', 1, 1, 'Excellent', 14.96);

Insert into Copy values('2226', 1, 2, 'Excellent', 14.96);

Insert into Copy values('2226', 1, 3, 'Good', 8.95);

Insert into Copy values('2226', 3, 1, 'Excellent', 14.95);

Insert into Copy values('2226', 3, 2, 'Excellent', 14.95);

Insert into Copy values('2226', 4, 1, 'Fair', 3.95);

Insert into Copy values('2281', 4, 1, 'Excellent', 21.00);

Insert into Copy values('2766', 3, 1, 'Excellent', 7.95);

Insert into Copy values('2766', 3, 2, 'Good', 3.95);

Insert into Copy values('2908', 1, 1, 'Excellent', 14.95);

Insert into Copy values('2908', 1, 2, 'Excellent', 14.95);

Insert into Copy values('2908', 1, 3, 'Good', 8.50);

Insert into Copy values('2908', 4, 1, 'Good', 8.50);

Insert into Copy values('3350', 1, 1, 'Excellent', 10.40);

Insert into Copy values('3350', 1, 2, 'Excellent', 10.40);

Insert into Copy values('3743', 2, 1, 'Excellent', 5.99);

Insert into Copy values('3906', 2, 1, 'Excellent', 12.16);

Insert into Copy values('3906', 3, 1, 'Excellent', 12.16);

Insert into Copy values('3906', 3, 2, 'Good', 4.50);

Insert into Copy values('5163', 1, 1, 'Excellent', 7.95);

Insert into Copy values('5790', 4, 1, 'Excellent', 12.00);

Insert into Copy values('5790', 4, 2, 'Good', 5.95);

Insert into Copy values('6128', 2, 1, 'Excellent', 12.95);

Insert into Copy values('6128', 2, 2, 'Excellent', 12.95);

Insert into Copy values('6128', 2, 3, 'Excellent', 12.95);

Insert into Copy values('6128', 2, 4, 'Excellent', 12.95);

Insert into Copy values('6128', 3, 1, 'Excellent', 12.95);

Insert into Copy values('6128', 3, 2, 'Excellent', 12.95);

Insert into Copy values('6128', 3, 3, 'Good', 4.75);

Insert into Copy values('6328', 2, 1, 'Excellent', 9.95);

Insert into Copy values('6328', 2, 2, 'Excellent', 9.95);

Insert into Copy values('669X', 1, 1, 'Excellent', 39.95);

Insert into Copy values('669X', 2, 1, 'Excellent', 39.95);

Insert into Copy values('6908', 2, 1, 'Excellent', 5.99);

Insert into Copy values('6908', 2, 2, 'Excellent', 5.99);

Insert into Copy values('7405', 3, 1, 'Good', 5.00);

Insert into Copy values('7405', 3, 2, 'Fair', 2.95);

Insert into Copy values('7443', 4, 1, 'Good', 9.25);

Insert into Copy values('7559', 2, 1, 'Fair', 3.65);

Insert into Copy values('7559', 2, 2, 'Good', 8.00);

Insert into Copy values('8092', 3, 1, 'Good', 9.50);

Insert into Copy values('8720', 1, 1, 'Excellent', 6.29);

Insert into Copy values('8720', 1, 2, 'Excellent', 6.29);

Insert into Copy values('8720', 1, 3, 'Good', 3.95);

Insert into Copy values('9611', 1, 1, 'Excellent', 18.81);

Insert into Copy values('9611', 1, 2, 'Good', 8.25);

Insert into Copy values('9627', 3, 1, 'Excellent', 14.00);

Insert into Copy values('9627', 3, 2, 'Excellent', 14.00);

Insert into Copy values('9627', 3, 3, 'Excellent', 14.00);

Insert into Copy values('9627', 3, 4, 'Excellent', 14.00);

Insert into Copy values('9627', 3, 5, 'Good', 6.50);

Insert into Copy values('9627', 4, 1, 'Excellent', 14.00);

Insert into Copy values('9627', 4, 2, 'Good', 6.50);

Insert into Copy values('9701', 1, 1, 'Excellent', 13.00);

Insert into Copy values('9701', 1, 2, 'Excellent', 13.00);

Insert into Copy values('9701', 2, 1, 'Excellent', 13.00);

Insert into Copy values('9701', 3, 1, 'Fair', 4.00);

Insert into Copy values('9701', 3, 2, 'Fair', 4.00);

Insert into Copy values('9701', 3, 3, 'Good', 7.25);

Insert into Copy values('9701', 4, 1, 'Excellent', 13.00);

Insert into Copy values('9701', 4, 2, 'Poor', 1.55);

Insert into Copy values('9882', 3, 1, 'Excellent', 6.99);

Insert into Copy values('9882', 3, 2, 'Good', 3.75);

Insert into Copy values('9882', 3, 3, 'Excellent', 6.99);

Insert into Copy values('9883', 2, 1, 'Excellent', 5.99);

Insert into Copy values('9883', 2, 2, 'Excellent', 5.99);

Insert into Copy values('9883', 2, 3, 'Fair', 1.95);

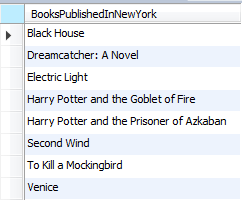
Insert into Copy values('9883', 4, 1, 'Good', 3.99);

Insert into Copy values('9883', 4, 2, 'Excellent', 5.99);

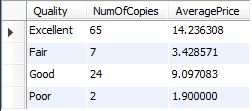
Insert into Copy values('9931', 1, 1, 'Excellent', 13.00);

Insert into Copy values('9931', 1, 2, 'Excellent', 13.00);

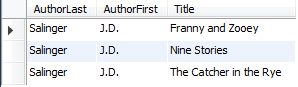
1. Write a SQL query to list the title of all non-paperback books published by a publisher located in New York. Name the column *BooksPublishedInNewYork*. Order by title.



1. Create a query that produces the following output using the Copy table:



1. Write a SQL query to list all the authors whose last names begin with “Sa” and the title of the books that they wrote. Order by the last name, then title, as shown:



1. Write a SQL query to change the price of each book in the Copy table with a current price of $14.00 to $14.50. Here is a result after the update.

