

**LAB 5: DATABASE PROGRAMMING**

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Section:02

**Instructions to Run the Program:** The program for lab5 was made using NETBEANS IDE 8.0.2. Click on the project called library open the project program using NETBEANS and then go the package where it says library click on it the drop down menu should come up for source packages then another drop down menu for library and finally click on the main class which is called library.java and run the main class. From that point on all instructions should appear in the terminal. *(No Bugs or Errors were found when creating this).*

**DUMP of DATABASE PROGRAM**

```
PRAGMA foreign_keys=ON;
```

```
BEGIN TRANSACTION;
```

```
CREATE TABLE Author(
```

```
  AuthorId INTEGER PRIMARY KEY AUTOINCREMENT,
```

```
  AuthorName VARCHAR(50) NOT NULL,
```

```
  Website VARCHAR(50) NOT NULL,
```

```
  PhoneNo VARCHAR(50) NOT NULL
```

```
);
```

```
INSERT INTO Author VALUES(1,'ramesh','www.ramesbooks.com',6476486980);
```

```
INSERT INTO Author VALUES(2,'james','www.jamesstories.com',4476456980);
```

```
INSERT INTO Author VALUES(3,'mathew','www.mathewstories.com',947645698);
```

```
INSERT INTO Author VALUES(4,'alex','www.alexstories.com',847645698);
```

```
INSERT INTO Author VALUES(5,'priya','www.priyafables.com',623345898);
```

```
INSERT INTO Author VALUES(6,'omar','www.omarfables.com',619345895);
```

```
INSERT INTO Author VALUES(7,'jonathan','www.jonathanfables.com',619845895);
```

```
INSERT INTO Author VALUES(8,'lisa','www.lisashortstories.com',646845295);
```

```
INSERT INTO Author VALUES(9,'lavanya','www.lovestories.com',646945293);
```

```
INSERT INTO Author VALUES(10,'geet','www.geetstories.com',846943293);
```

```
CREATE TABLE CustomerBook(
```

```
  CustomerId INT NOT NULL,
```

```
  BookId INT NOT NULL,
```

CONSTRAINT PK\_CustomerBook PRIMARY KEY

```
(
    CustomerId,
    BookId
),
FOREIGN KEY (CustomerId) REFERENCES Customer(CustomerId),
FOREIGN KEY (BookId) REFERENCES BOOK (BookId)
);
```

INSERT INTO CustomerBook VALUES(1,12);

INSERT INTO CustomerBook VALUES(2,13);

INSERT INTO CustomerBook VALUES(3,15);

INSERT INTO CustomerBook VALUES(4,19);

INSERT INTO CustomerBook VALUES(5,20);

INSERT INTO CustomerBook VALUES(6,11);

INSERT INTO CustomerBook VALUES(7,16);

INSERT INTO CustomerBook VALUES(8,17);

INSERT INTO CustomerBook VALUES(9,7);

INSERT INTO CustomerBook VALUES(10,2);

INSERT INTO CustomerBook VALUES(1,19);

INSERT INTO CustomerBook VALUES(3,17);

INSERT INTO CustomerBook VALUES(5,14);

INSERT INTO CustomerBook VALUES(7,10);

INSERT INTO CustomerBook VALUES(9,2);

INSERT INTO CustomerBook VALUES(10,5);

CREATE TABLE BookAuthor(

AuthorId INT NOT NULL,

BookId INT NOT NULL,

CONSTRAINT PK\_BookAuthor PRIMARY KEY

```
(
    AuthorId,
```

```
        BookId
    ),
    FOREIGN KEY (AuthorId) REFERENCES Author(AuthorId),
    FOREIGN KEY (BookId) REFERENCES BOOK (BookId)
);

INSERT INTO BookAuthor VALUES(3,9);
INSERT INTO BookAuthor VALUES(2,19);
INSERT INTO BookAuthor VALUES(1,10);
INSERT INTO BookAuthor VALUES(4,13);
INSERT INTO BookAuthor VALUES(5,17);
INSERT INTO BookAuthor VALUES(8,20);
INSERT INTO BookAuthor VALUES(6,13);
INSERT INTO BookAuthor VALUES(7,14);
INSERT INTO BookAuthor VALUES(9,7);
INSERT INTO BookAuthor VALUES(10,15);
INSERT INTO BookAuthor VALUES(3,12);
INSERT INTO BookAuthor VALUES(5,10);
INSERT INTO BookAuthor VALUES(7,9);
INSERT INTO BookAuthor VALUES(9,13);

CREATE TABLE IF NOT EXISTS "Customer" ("CustomerId" INTEGER PRIMARY
KEY ,"CustomerName" VARCHAR(50) NOT NULL ,"Address" VARCHAR(50) NOT NULL
DEFAULT (null) ,"PhoneNo" VARCHAR(50));

INSERT INTO Customer VALUES(1,'james','6649 N Blue Gum St,London','504-621-
8927');

INSERT INTO Customer VALUES(2,'Art','8 W Cerritos Ave #54,Paris','907-385-4412');
INSERT INTO Customer VALUES(3,'Donette','3 Mcauley Dr,NewYork','419-503-2484');
INSERT INTO Customer VALUES(4,'Mitsue','7 Eads St,LosAngeles','773-573-6914');
INSERT INTO Customer VALUES(5,'Leota','7 W Jackson Blvd,NewJersey','408-752-
3500');

INSERT INTO Customer VALUES(7,'Kris','228 Runamuck Pl #2808,Toronto','410-655-
8723');

INSERT INTO Customer VALUES(8,'Minna','2371 Jerrold Ave,London','215-874-1229');
```

```
INSERT INTO Customer VALUES(9,'Abel','37275 St Rt 17m M,Paris','631-677-3675');
```

```
INSERT INTO Customer VALUES(10,'Kiley','25 E 75th St #69,NewYork','431-677-3695');
```

```
CREATE TABLE IF NOT EXISTS "Warehouse" ("WarehouseId" INTEGER PRIMARY KEY ,"Location" VARCHAR(50) DEFAULT (null) ,"PhoneNo" VARCHAR(50));
```

```
INSERT INTO Warehouse VALUES(1,'Los Angeles','310-498-5651');
```

```
INSERT INTO Warehouse VALUES(2,'NewYork','440-780-8425');
```

```
INSERT INTO Warehouse VALUES(3,'Toronto','956-537-6195');
```

```
INSERT INTO Warehouse VALUES(4,'Newjersey','456-537-6195');
```

```
INSERT INTO Warehouse VALUES(5,'London','366-537-6125');
```

```
INSERT INTO Warehouse VALUES(6,'Paris','856-537-6125');
```

```
INSERT INTO Warehouse VALUES(7,'London','602-277-4385');
```

```
INSERT INTO Warehouse VALUES(8,'NewYork','802-477-5385');
```

```
INSERT INTO Warehouse VALUES(9,'NewYork','202-477-5387');
```

```
INSERT INTO Warehouse VALUES(10,'LosAngeles','802-477-5383');
```

```
CREATE TABLE IF NOT EXISTS "FedEx" ("FedExId" INTEGER PRIMARY KEY ,"Location" VARCHAR(50) DEFAULT (null) ,"PhoneNo" VARCHAR(50));
```

```
INSERT INTO FedEx VALUES(1,'Toronto','410-655-8723');
```

```
INSERT INTO FedEx VALUES(2,'Paris','810-455-923');
```

```
INSERT INTO FedEx VALUES(3,'NewYork','789-345-324');
```

```
INSERT INTO FedEx VALUES(4,'LosAngeles','215-874-1229');
```

```
INSERT INTO FedEx VALUES(5,'NewJersey','515-874-1229');
```

```
INSERT INTO FedEx VALUES(6,'London','615-474-1232');
```

```
INSERT INTO FedEx VALUES(7,'NewYork','515-474-1298');
```

```
INSERT INTO FedEx VALUES(8,'Toronto','815-344-1226');
```

```
INSERT INTO FedEx VALUES(9,'LosAngeles','310-498-5651');
```

```
INSERT INTO FedEx VALUES(10,'NewJersey','931-313-9635');
```

```
CREATE TABLE IF NOT EXISTS "Publisher" ("PublisherId" INTEGER PRIMARY KEY ,"Website" VARCHAR(50));
```

```
INSERT INTO Publisher VALUES(1,'www.createbooks.com');
```

```
INSERT INTO Publisher VALUES(2,'www.harpercollins.com');
```

```
INSERT INTO Publisher VALUES(3,'www.tlac.com');
INSERT INTO Publisher VALUES(4,'www.mandagroup.com');
INSERT INTO Publisher VALUES(5,'www.dundrunpress.com');
INSERT INTO Publisher VALUES(6,'www.betweenlines.com');
INSERT INTO Publisher VALUES(7,'www.wemakebooks.com');
INSERT INTO Publisher VALUES(8,'www.secondstorypress.com');
INSERT INTO Publisher VALUES(9,'www.coachhousebooks.com');
INSERT INTO Publisher VALUES(10,'www.nationalbooknetwork.com');

CREATE TABLE IF NOT EXISTS "BOOK" ("BookId" INTEGER PRIMARY KEY ,"BookName"
VARCHAR(50) NOT NULL ,"Price" INT NOT NULL ,"ISBN" INT,"Language"
VARCHAR(50),"PublicationDate" Int DEFAULT (null) ,"AmazonRating" INT,"Genre"
Char(10),"");

INSERT INTO BOOK VALUES(1,'Harry Potter and the Cursed Child',30,1338099132,'
English',20160731,4,'Fiction',NULL);

INSERT INTO BOOK VALUES(2,'The Guide: A Novel',22,143039644,'
English',20060806,4.5,'Fiction',NULL);

INSERT INTO BOOK VALUES(3,'The High Mountains of Portugal: A Novel
',34.799999999999997157,345809432,'English',20160202,4,'Fiction',NULL);

INSERT INTO BOOK VALUES(4,'The
Unconquered',28,'030746296X','ENGLISH',20111118,3.5,'NonFiction',NULL);

INSERT INTO BOOK VALUES(5,'Adrift: Seventy-six Days Lost at
Sea',22,618257322,'ENGLISH',20100919,4.7000000000000001776,'NonFiction',NUL
L);

INSERT INTO BOOK VALUES(6,'Long Walk: The True Story Of A Trek To Freedom
',40,1592289444,'ENGLISH',20060401,4.2999999999999998223,'NonFiction',NULL);

INSERT INTO BOOK VALUES(7,'HomeAlone',20,4534746036,'
English',20110806,3.2999999999999998223,'Fiction',NULL);

INSERT INTO BOOK VALUES(8, 'Brief History of Time Stephen
Hawking',3,0553380163,' English', '1998-09-01',4.5,'Fiction',NULL);

INSERT INTO BOOK VALUES(9,'Asylum ',40,62220977,'
English',20141106,3.2999999999999998223,'Fiction',NULL);

INSERT INTO BOOK VALUES(10,'Gandhi: An Autobiography, The Story of My
Experiments with Truth',12,1554551838,'
English',20090303,3.8999999999999999111,'Fiction',NULL);
```

```
INSERT INTO BOOK VALUES(11,'The 120 Days of
Simon',4.9500000000000001776,'978-1-60309-050-
6','ENGLISH',20120303,4.2999999999999998223,'Fiction',NULL);

INSERT INTO "BOOK" VALUES(12,'The Snowden Files: The Inside Story of the Worlds
Most Wanted Man',12.58,'978-0804173520','ENGLISH','2014-02-
07',4.3,'NonFiction',NULL);

INSERT INTO "BOOK" VALUES(13,'The Pretender: My Life Undercover for the
FBI',30,'978-1250068637','ENGLISH','2017-06-06',3.7,'Fiction',NULL);

INSERT INTO BOOK VALUES(14,'The World As I See It
',32.5,806527900,'ENGLISH',20090809,4.2000000000000001776,'NonFiction',NULL)
;

INSERT INTO "BOOK" VALUES(16,'Outliers: The Story of
Success',23,1451639619,'ENGLISH','2011-06-07',4.5,'NonFiction',NULL);

INSERT INTO "BOOK" VALUES(20,'Tripe Cross: How Bin Ladens Master Spy
Penetrated the CIA the Green Berets and the FBI',9,0061189418,'English','2009-06-
16',4.4,'NonFiction',NULL);

DELETE FROM sqlite_sequence;

INSERT INTO sqlite_sequence VALUES('Author',10);

COMMIT;
```

## SCREENSHOTS OF PROGRAM COMPILATION

### Case 1:

```
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :1
BookName :Adrift: Seventy-six Days Lost at SeaAmazonRating : 4.7

BookName :The Snowden Files: The Inside Story of the Worlds Most Wanted ManAmazonRating : 4.7

BookName :The Pretender: My Life Undercover for the FBIAmazonRating : 4.7

BookName :Outliers: The Story of SuccessAmazonRating : 4.7

BookName :Tripe Cross: How Bin Ladens Master Spy Penetrated the CIA the Green Berets and the FBIAmazonRating : 4.9
```

**Figure 1: Case 1 Result****Case 2:**

```
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :2
Nonfiction List->

-->The Unconquered
-->Adrift: Seventy-six Days Lost at Sea
-->The Snowden Files: The Inside Story of the Worlds Most Wanted Man
-->The World As I See It
-->Outliers: The Story of Success
-->Triple Cross: How Bin Ladens Master Spy Penetrated the CIA the Green Berets and the FBI
-->Bourne Supremacy
-->Born

fiction List->

-->Harry Potter and the Cursed Child
-->The Guide: A Novel
-->The High Mountains of Portugal: A Novel
-->HomeAlone
-->Brief History of Time
-->Asylum
-->Gandhi: An Autobiography, The Story of My Experiments with Truth
-->The 120 Days of Simon
-->The Pretender: My Life Undercover for the FBI
```

**Figure 2: Case 2 Result**

```
-----
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :3
-->The Unconquered
-->Adrift: Seventy-six Days Lost at Sea
-->HomeAlone
```

**Figure 3: Case 3 Result**

```
-----
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :4
Name :The Pretender: My Life Undercover for the FBI Price :56
```

**Figure 4: Case 4 Result 4**

```
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :5
--->priya
--->jonathan
```

**Figure 5: Case 5 Result 5**

```
-----
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :6
Name of Book with specified ISBN : The Guide: A Novel
```

**Figure 6: Case 6 Result 6**



- 
- 1: Show the List of Books with an Amazing Rating Greater than 4.5
  - 2: Show the List of Books which are Fiction or NonFiction
  - 3: Which Books came Between Year 2010 and 2012
  - 4: What is the Highest Price of the BOOK
  - 5: Name of Authors with More than 1 Book
  - 6: What is the Book with a specific ISBN number
  - 7: What is the Name of the Author who wrote a specific Book
  - 8: Name of the Book which was bought by a Particular Customer
  - 9: What are the Total Number of Warehouses in Particular Location ?
  - 10:What are the Books which Fall Between Certain Price Range ?

Select any option :7

Name of Author of Book Asylum is :ramesh

**Figure 7: Case 7 Result 7**

- 
- 1: Show the List of Books with an Amazing Rating Greater than 4.5
  - 2: Show the List of Books which are Fiction or NonFiction
  - 3: Which Books came Between Year 2010 and 2012
  - 4: What is the Highest Price of the BOOK
  - 5: Name of Authors with More than 1 Book
  - 6: What is the Book with a specific ISBN number
  - 7: What is the Name of the Author who wrote a specific Book
  - 8: Name of the Book which was bought by a Particular Customer
  - 9: What are the Total Number of Warehouses in Particular Location ?
  - 10:What are the Books which Fall Between Certain Price Range ?
  - 11:Inserting new Data to the Database?
  - 12: Update the Following Table in the Database ?
  - 13: Delete the Following Table in the Database?

Select any option :8

Name of Books whose Author is Kiley :Harry Potter and the Cursed Child

**Figure 8: Case 8 Result 8**

- 1: Show the List of Books with an Amazing Rating Greater than 4.5
- 2: Show the List of Books which are Fiction or NonFiction
- 3: Which Books came Between Year 2010 and 2012
- 4: What is the Highest Price of the BOOK
- 5: Name of Authors with More than 1 Book
- 6: What is the Book with a specific ISBN number
- 7: What is the Name of the Author who wrote a specific Book
- 8: Name of the Book which was bought by a Particular Customer
- 9: What are the Total Number of Warehouses in Particular Location ?
- 10:What are the Books which Fall Between Certain Price Range ?
- 11:Inserting new Data to the Database?
- 12: Update the Following Table in the Database ?
- 13: Delete the Following Table in the Database?

Select any option :9

Number of Warehouses in NewYork: 3

**Figure 9: Case 9 Result 9**

```
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :10
    Books which fall between price range of 10 and 20:
-->The Snowden Files: The Inside Story of the Worlds Most Wanted Man
```

**Figure 10: Case 10 Result 10**

**INSERTING(USER MANUALLY ENTERS) NEW DATA INTO DATABASE**

```
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :11
Please enter the Name of the Book:
Bourne
Please enter the Price of the Book:
27.87
Please enter the ISBN number of the Book:
12345678
Please enter the Language of the Book:
English
Please enter the Book is Fiction or NonFiction
NonFiction
Please enter the PublicationDate of the Book
19840704
New User Successfully Inserted in the DATABASE !!!!
```

**Figure 11: Case 11 Result 11**

**UPDATING THE TABLE IN THE DATABASE**

-----

```
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :12
Price is now 25.67
```

***Figure 12: Case 12 Result 12***

**DELETING THE TABLE IN THE DATABASE**

```
1: Show the List of Books with an Amazing Rating Greater than 4.5
2: Show the List of Books which are Fiction or NonFiction
3: Which Books came Between Year 2010 and 2012
4: What is the Highest Price of the BOOK
5: Name of Authors with More than 1 Book
6: What is the Book with a specific ISBN number
7: What is the Name of the Author who wrote a specific Book
8: Name of the Book which was bought by a Particular Customer
9: What are the Total Number of Warehouses in Particular Location ?
10:What are the Books which Fall Between Certain Price Range ?
11:Inserting new Data to the Database?
12: Update the Following Table in the Database ?
13: Delete the Following Table in the Database?
Select any option :13
BookId is now Deleted
```

***Figure 13: Case 13 Result 13***