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1  -- DROPPING/CREATING THE DATABASE
2  DROP DATABASE IF EXISTS JungleBooks;
3  CREATE DATABASE JungleBooks;
4
5  USE JungleBooks;
6
7  -- CREATING TABLES
8  CREATE TABLE Customer (
9      CustomerID INT (11) NOT NULL AUTO_INCREMENT,
10     CustomerFirstName VARCHAR(32) NOT NULL,
11     CustomerLastName VARCHAR (32) NOT NULL,
12     BillingAddress VARCHAR (255) NOT NULL,
13     ShippingAddress VARCHAR (255) NOT NULL,
14     Email VARCHAR (80) NOT NULL,
15     PhoneNumber VARCHAR (11) NOT NULL,
16     UserName VARCHAR (32) NOT NULL,
17     Password VARCHAR (32) NOT NULL,
18     PRIMARY KEY (CustomerID)
19 );
20
21 CREATE TABLE CustomerOrder (
22     OrderID INT (11) NOT NULL AUTO_INCREMENT,
23     CustomerID INT (11) NOT NULL,
24     DateOrdered DATETIME NOT NULL,
25     DateShipped DATETIME NULL,
26     OrderStatus VARCHAR (32) NOT NULL,
27     OrderSubtotal FLOAT NOT NULL,
28     Taxes FLOAT NOT NULL,
29     TotalCost FLOAT,
30     PRIMARY KEY (OrderID)
31 );
32
33 CREATE TABLE CustomerOrder_Books (
34     OrderID INT (11) NOT NULL,
35     ISBN VARCHAR (13) NOT NULL,
36     Quantity INT (11) NOT NULL,
37     Subtotal INT (11) NOT NULL,
38     PRIMARY KEY (OrderID, ISBN)
39 );
40
41 CREATE TABLE Books (
42     ISBN VARCHAR (13) NOT NULL ,
43     BookTitle VARCHAR (80) NOT NULL,
44     BookSummary VARCHAR (255) NOT NULL,
45     Price FLOAT NOT NULL,
46     PRIMARY KEY (ISBN)
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47 );
48
49 CREATE TABLE Author_Books (
50     AuthorID INT (11) NOT NULL,
51     ISBN VARCHAR (13) NOT NULL,
52     PRIMARY KEY (AuthorID, ISBN)
53 );
54
55 CREATE TABLE Author (
56     AuthorID INT (11) NOT NULL AUTO_INCREMENT,
57     AuthorFirstName VARCHAR (32) NOT NULL,
58     AuthorLastName VARCHAR (32) NOT NULL,
59     PRIMARY KEY (AuthorID)
60 );
61
62 CREATE TABLE Books_BookCategory (
63     ISBN VARCHAR (13) NOT NULL,
64     BookCategoryID INT (11) NOT NULL,
65     PRIMARY KEY (ISBN, BookCategoryID)
66 );
67
68 CREATE TABLE BookCategory (
69     BookCategoryID INT (11) NOT NULL AUTO_INCREMENT,
70     BookCategoryName VARCHAR (32) NOT NULL,
71     PRIMARY KEY (BookCategoryID)
72 );
73
74 -- ALTERING THE TABLES
75 ALTER TABLE CustomerOrder
76     ADD CONSTRAINT FK__CustomerOrder__Customer__CustomerID
77     FOREIGN KEY (CustomerID)
78     REFERENCES Customer (CustomerID);
79
80 ALTER TABLE CustomerOrder_Books
81     ADD CONSTRAINT
82     FK__CustomerOrder_Books__CustomerOrder__OrderID
83     FOREIGN KEY (OrderID)
84     REFERENCES CustomerOrder (OrderID);
85
86 ALTER TABLE CustomerOrder_Books
87     ADD CONSTRAINT FK__CustomerOrder_Books__Books__ISBN
88     FOREIGN KEY (ISBN)
89     REFERENCES Books (ISBN);
90
91 ALTER TABLE Author_Books
92     ADD CONSTRAINT FK__Author_Books__Books__ISBN
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92     FOREIGN KEY (ISBN)
93     REFERENCES Books (ISBN);
94
95 ALTER TABLE Author_Books
96     ADD CONSTRAINT FK__Author_Books__Author__AuthorID
97     FOREIGN KEY (AuthorID)
98     REFERENCES Author (AuthorID);
99
100 ALTER TABLE Books_BookCategory
101     ADD CONSTRAINT FK__Books_BookCategory__Books__ISBN
102     FOREIGN KEY (ISBN)
103     REFERENCES Books (ISBN);
104
105 ALTER TABLE Books_BookCategory
106     ADD CONSTRAINT
107     FK__Books_BookCategory__BookCategory__BookCategoryID
108     FOREIGN KEY (BookCategoryID)
109     REFERENCES BookCategory (BookCategoryID);
110 -- INSERTING DATA INTO THE DATABASE: ADDING BOOKS TO BOOKS
111 INSERT INTO Books
112     (ISBN, BookTitle, BookSummary, Price)
113 VALUES
114     ('9780140385724', 'The Outsiders',
115     'The Outsiders tells the story of 14-year-old Ponyboy
116     Curtis and his two older brothers, Soda and Darry. The
117     boys are orphans and struggle to stick together in their
118     lower-class neighborhood, known as the East Side.',
119     11.44); #Young adult fiction
120
121 INSERT INTO Books
122     (ISBN, BookTitle, BookSummary, Price)
123 VALUES
124     ('9780062678423', 'The Woman in the Window',
125     'Agoraphobic Dr. Anna Fox witnesses something she
126     should not while keeping tabs on the Russell family, the
127     seemingly picture perfect clan that lives across the way.'
128     ,
129     17.87); #Thriller, Fiction, Mystery, Suspense
130
131 INSERT INTO Books
132     (ISBN, BookTitle, BookSummary, Price)
133 VALUES
134     ('9781250081810', 'Its Always the Husband',
135     'Kate, Aubrey and Jenny met in college and promised
136     they'd always be there for each other.

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130      Twenty years later, all women are now married but
      when one of the friends dies in shocking circumstances,
      will everyone assume that it's always the husband?',
131      9.49);
132
133 INSERT INTO Books
134      (ISBN, BookTitle, BookSummary, Price)
135 VALUES
136      ('9780133970777', 'Fundamentals of Database Systems (
      7th Edition)',
137      'This book introduces the fundamental concepts
      necessary for designing,
138      using, and implementing database systems and
      database applications. ' , 179.16);
139
140 -- ADDING THE CATEGORIES TO BOOK CATEGORY
141 INSERT INTO BookCategory
142      (BookCategoryName)
143 VALUES
144      ('Thriller');
145
146 INSERT INTO BookCategory
147      (BookCategoryName)
148 VALUES
149      ('Mystery');
150
151 INSERT INTO BookCategory
152      (BookCategoryName)
153 VALUES
154      ('Suspense');
155
156 INSERT INTO BookCategory
157      (BookCategoryName)
158 VALUES
159      ('Young Adult Fiction');
160
161 INSERT INTO BookCategory
162      (BookCategoryName)
163 VALUES
164      ('Fiction');
165
166 INSERT INTO BookCategory
167      (BookCategoryName)
168 VALUES
169      ('Databases');
170
```

```
171 -- ADDING AUTHORS TO AUTHOR
172 INSERT INTO Author
173     (AuthorFirstName, AuthorLastName)
174 VALUES
175     ('Susan', 'Hinton');
176
177 INSERT INTO Author
178     (AuthorFirstName, AuthorLastName)
179 VALUES
180     ('Dan', 'Mallory');
181
182 INSERT INTO Author
183     (AuthorFirstName, AuthorLastName)
184 VALUES
185     ('Michele', 'Campbell');
186
187 INSERT INTO Author
188     (AuthorFirstName, AuthorLastName)
189 VALUES
190     ('Ramez', 'Elmasri');
191
192 INSERT INTO Author
193     (AuthorFirstName, AuthorLastName)
194 VALUES
195     ('Shamkant', 'Navathe');
196
197 -- ADDING AUTHORS TO EACH BOOK
198 INSERT INTO Author_Books
199     (AuthorID, ISBN)
200 VALUES
201     (1, 9780140385724);
202
203 INSERT INTO Author_Books
204     (AuthorID, ISBN)
205 VALUES
206     (2, 9780062678423);
207
208 INSERT INTO Author_Books
209     (AuthorID, ISBN)
210 VALUES
211     (3, 9781250081810);
212
213 INSERT INTO Author_Books
214     (AuthorID, ISBN)
215 VALUES
216     (4, 9780133970777);
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217
218 INSERT INTO Author_Books
219     (AuthorID, ISBN)
220 VALUES
221     (5, 9780133970777);
222
223 -- ADDING CATEGORIES TO THE BOOKS
224 INSERT INTO Books_BookCategory
225     (ISBN, BookCategoryID)
226 VALUES
227     ('9780140385724', '4');
228
229 INSERT INTO Books_BookCategory
230     (ISBN, BookCategoryID)
231 VALUES
232     ('9780062678423', '1');
233
234 INSERT INTO Books_BookCategory
235     (ISBN, BookCategoryID)
236 VALUES
237     ('9780062678423', '2');
238
239 INSERT INTO Books_BookCategory
240     (ISBN, BookCategoryID)
241 VALUES
242     ('9780062678423', '3');
243
244 INSERT INTO Books_BookCategory
245     (ISBN, BookCategoryID)
246 VALUES
247     ('9780062678423', '5');
248
249 INSERT INTO Books_BookCategory
250     (ISBN, BookCategoryID)
251 VALUES
252     ('9781250081810', '1');
253
254 INSERT INTO Books_BookCategory
255     (ISBN, BookCategoryID)
256 VALUES
257     ('9781250081810', '2');
258
259 INSERT INTO Books_BookCategory
260     (ISBN, BookCategoryID)
261 VALUES
262     ('9781250081810', '3');
```

```
263
264 INSERT INTO Books_BookCategory
265     (ISBN, BookCategoryID)
266 VALUES
267     ('9781250081810', '5');
268
269 INSERT INTO Books_BookCategory
270     (ISBN, BookCategoryID)
271 VALUES
272     ('9780133970777', '6');
273
274 -- ADDING THE CUSTOMERS INTO CUSTOMER
275 INSERT INTO Customer
276     (CustomerFirstName, CustomerLastName, BillingAddress,
277      ShippingAddress, Email, PhoneNumber, UserName, Password)
277 VALUES
278     ('Peyton', 'Sawyer', '123 Anywhere Road', '321
279      Somewhere Lane', 'peyton.s@hotmail.com', '4551234321', '
280      pey.saw', 'sawyer12');
281
282 INSERT INTO Customer
283     (CustomerFirstName, CustomerLastName, BillingAddress,
284      ShippingAddress, Email, PhoneNumber, UserName, Password)
285 VALUES
286     ('Brooke', 'Davis', '456 Nowhere Avenue', '654 Memory
287      Court', 'davis.b@gmail.com', '8019997788', 'brooke.davis'
288      , 'davisb22');
289
290 INSERT INTO Customer
291     (CustomerFirstName, CustomerLastName, BillingAddress,
292      ShippingAddress, Email, PhoneNumber, UserName, Password)
293 VALUES
294     ('Lucas', 'Scott', '78 This Street', '87 That Street'
295      , 'l.scott@yahoo.com', '9025557744', 'l.scott', 'lucas123'
296      );
297
298 INSERT INTO Customer
299     (CustomerFirstName, CustomerLastName, BillingAddress,
300      ShippingAddress, Email, PhoneNumber, UserName, Password)
301 VALUES
302     ('Nathan', 'James', '90 That Street', '90 That Street'
303      , 'nathanjames11@hotmail.com', '9052226879', '
304      nathanjames23', 'james321');
305
306 -- CREATING 3 ORDERS
307 -- customer 1 buys one copy of all three books
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```
297 INSERT INTO CustomerOrder
298     (CustomerID, DateOrdered, DateShipped, OrderStatus,
      OrderSubtotal, Taxes, TotalCost)
299 VALUES
300     ( 1, '2019-11-22T08:30:15.000', NULL, 'pending
      confirmation', 38.80, 5.82, 44.62);
301 -- adding the books to the customers order
302 INSERT INTO CustomerOrder_Books
303     (OrderID, ISBN, Quantity, Subtotal)
304 VALUES
305     (1, '9780062678423', 1, 17.87);
306
307 INSERT INTO CustomerOrder_Books
308     (OrderID, ISBN, Quantity, Subtotal)
309 VALUES
310     (1, '9780140385724', 1, 11.44);
311
312 INSERT INTO CustomerOrder_Books
313     (OrderID, ISBN, Quantity, Subtotal)
314 VALUES
315     (1, '9781250081810', 1, 9.49);
316
317 -- customer 2 buys one of the books
318 INSERT INTO CustomerOrder
319     (CustomerID, DateOrdered, DateShipped, OrderStatus,
      OrderSubtotal, Taxes, TotalCost)
320 VALUES
321     ( 2, '2019-11-24T09:40:35.000', NULL, 'pending
      confirmation', 17.87, 2.68, 20.55);
322
323 INSERT INTO CustomerOrder_Books
324     (OrderID, ISBN, Quantity, Subtotal)
325 VALUES
326     ( 2, '9780062678423', 1, 17.87);
327
328 -- customer 3 buys 5 copies of book 1, 2 copies of book 2
      and 10 copies of book 3
329 INSERT INTO CustomerOrder
330     (CustomerID, DateOrdered, DateShipped, OrderStatus,
      OrderSubtotal, Taxes, TotalCost)
331 VALUES
332     ( 3, '2019-11-26T12:10:04.000', NULL, 'pending
      confirmation', 207.13, 31.06, 238.19);
333 -- adding books to customers order
334 INSERT INTO CustomerOrder_Books
335     (OrderID, ISBN, Quantity, Subtotal)
```



```

336 VALUES
337     ( 3, '9780062678423', 5, 89.35);
338
339 INSERT INTO CustomerOrder_Books
340     (OrderID, ISBN, Quantity, Subtotal)
341 VALUES
342     ( 3, '9780140385724', 2, 22.88);
343
344 INSERT INTO CustomerOrder_Books
345     (OrderID, ISBN, Quantity, Subtotal)
346 VALUES
347     ( 3, '9781250081810', 10, 94.90);
348
349 -- DELETING THE SECOND ORDER
350 DELETE FROM CustomerOrder_Books
351     WHERE OrderID = 2;
352 DELETE FROM CustomerOrder
353     WHERE CustomerID = 2;
354
355 -- CHANGING THE STATUS OF FIRST ORDER TO COMPLETE
356 UPDATE CustomerOrder
357 SET DateShipped = '2019-11-25T02:36:19.000', OrderStatus
    = 'complete'
358 WHERE CustomerID = 1 AND OrderID = 1;
359
360 -- CHANGING THE THIRD ORDER TO ADD 1 MORE COPY OF SECOND
    BOOK
361 UPDATE CustomerOrder_Books
362 SET Quantity = 3, Subtotal = 34.32
363 WHERE OrderID = 3 AND ISBN = '9780140385724';
364 UPDATE CustomerOrder
365 SET OrderSubtotal = 218.57, Taxes = 32.78, TotalCost = 251
    .35
366 WHERE CustomerID = 3 AND OrderID = 3;
367
368 -- DISPLAY ALL CUSTOMER INFORMATION FOR CUSTOMERS WITHOUT
    ANY ORDERS
369 SELECT C.CustomerID, CustomerFirstName, CustomerLastName,
    BillingAddress, ShippingAddress, PhoneNumber, Email,
    Username, Password
370 FROM Customer C LEFT OUTER JOIN CustomerOrder CO
371 ON C.CustomerID = CO.CustomerID
372 WHERE OrderID is NULL;
373
374 -- DISPLAY TITLE, AUTHOR, ISBN AND PRICE OF ALL BOOKS
375 SELECT B.ISBN, BookTitle, Price, A.AuthorID,

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375 AuthorLastName, AuthorFirstName
376 FROM Books B INNER JOIN Author_Books AB ON B.ISBN = AB.
    ISBN
377         INNER JOIN Author A ON AB.AuthorID = A.
    AuthorID
378         INNER JOIN Books_BookCategory BBC ON AB.ISBN
    = BBC.ISBN
379         INNER JOIN BookCategory BC ON BBC.
    BookCategoryID = BC.BookCategoryID
380 WHERE BookTitle LIKE '%Database%' OR BookCategoryName LIKE
    '%Database%'; -- displaying title or category containing
    "database"
381
382 -- DISPLAYING EMAILS OF CUSTOMERS WHO HAVE OUTSTANDING
    ORDERS
383 SELECT Email
384 FROM Customer C RIGHT OUTER JOIN CustomerOrder CO
385 ON C.CustomerID = CO.CustomerID
386 WHERE DateShipped is NULL;
387
388 -- DISPLAYING ORDER INFORMATION ON ANY ORDERS THAT HAVE
    PURCHASED MORE THAN ONE COPY OF ANY BOOK
389 SELECT CustomerOrder.OrderID, CustomerOrder.DateOrdered,
    CustomerOrder.DateShipped, CustomerOrder.OrderStatus,
390         CustomerOrder.OrderSubtotal, CustomerOrder.Taxes,
    CustomerOrder.TotalCost, CustomerOrder.CustomerID
391 FROM CustomerOrder RIGHT OUTER JOIN CustomerOrder_Books
    COB
392 ON CustomerOrder.OrderID = COB.OrderID
393 WHERE Quantity > 1
394 GROUP BY COB.OrderID
395 ORDER BY COB.OrderID;
396
397 -- DISPLAYING ORDER NUMBER AND TOTAL NUMBER OF BOOKS IN
    EACH ORDER
398 SELECT CustomerOrder.OrderID, SUM(Quantity)
399 FROM CustomerOrder
400 INNER JOIN CustomerOrder_Books COB
401 ON CustomerOrder.OrderID = COB.OrderID
402 GROUP BY CustomerOrder.OrderID;
403
404 -- DISPLAY EACH ORDER NUMBER, CUSTOMER NAMES AND TOTAL
    COST OF ORDER
405 SELECT CO.OrderID, CustomerLastName, CustomerFirstName,
    SUM(Quantity * Price * 1.15)
406 FROM CustomerOrder CO INNER JOIN Customer C ON CO.

```

```
406 CustomerID = C.CustomerID
407             INNER JOIN CustomerOrder_Books COB
      ON CO.OrderID = COB.OrderID
408             INNER JOIN Books B ON COB.ISBN = B.
      ISBN
409 GROUP BY CO.OrderID;
410
411
412
413
414
```