Initial content of database tables after initialization:

```
ID |
              NAME
              Design Patterns
C/C++
              Python
Scala
JavaScript
  rows in set (0.00 sec)
ysql> select * from book;
  ID | CATEGORY_ID | ISBN
                                                                                 Expert one-on-one J2EE Design and Development
                                                                                                                                                                                                           31.75
18.3
50.14
52.49
                                                 0321349807
0321349808
                                                                                The Java Programming Language
Head First Java
                                                                               Head First Java
Murach Java Programming (5th Edition)
Patterns of Enterprise Application Architecture
The C Programming Language(2nd Edition)
C++ Primer(5th Edition)
Murach C++ Programming
Python Crash Course
Scala in Depth
                                                0321349809
0321127420
                                                                                                                                                                                                            31.83
55.56
59.5
                                                 0321349524
0321349529
                                                 0321349528
                                                0321349810
1935182706
                                                                                                                                                                                                            21.24
32.48
   10
                                                 0321349819
                                                                                 Eloquent JavaScript
l1 rows in set (0.00 sec)
ysql> select * from author;
  ID | FIRST_NAME | LAST_NAME | DESCRIPTION
                                                                           an Australian computer specialist who created the Spring Framework and co-founded SpringSource an American computer programmer well known as one of the developers of the 1980s

She created the award-winning Head First programming book series that has sold over 1 million copies. He has written extensively on a wide range of Java, .NET, web, and database technologies.

A British software developer, author and international public speaker on software development a computer scientist who worked at Bell Labs alongside Unix creators

He has worked with Bjarne Stroustrup in Bell Laboratories during early stages of C++

He teaches high school math and science at a small school in southeast Alaska.

A Staff Software Engineer at Google LLC

A programmer and tech writer in Berlin

A German computer scientist and professor of programming methods
                                               Johnson
Arnold
              Ken
              Kathy
Joel
                                              Sierra
                                               Murach
              Martin
              Brian
Stanley
                                               Kernighan
                                               Lippman
              Eric
Josh
                                               Matthes
                                               Suereth
              Martin
                                               Odersky
 1 rows in set (0.00 sec)
ysql> select * from author_book;
  AUTHOR_ID | BOOK_ID
                                            10
2 rows in set (0.00 sec)
```

1. Find a book with author(s) and category by the book ld java -jar .\target\find-book-author-category-by-bookid-demo.jar edu.lix8.spring.jpa2.app.FindBookAuthorsCategoryByBookIdDemo

2. Find all books without details java -jar .\target\find-all-books-demo.jar edu.lix8.spring.jpa2.app.FindAllBooksDemo

```
12:03:25,619 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
12:03:25,621 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
                                                                                   12:03:25,621 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
12:03:25,621 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
                                                                                        - Book{id=3, isbn='0321349808', title='Head First Java', price=18.3}
                                                                                          Book{id=4, isbn='0321349809', title='Murach Java Programming (5th Edition)', price=50.14}
 12:03:25,623 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
12:03:25,623 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
                                                                                        - Book{id=5, isbn='0321127420', title='Patterns of Enterprise Application Architecture', price=52.49}
 12:03:25,623 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
12:03:25,623 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
                                                                                         Book{id=6, isbn='0321349524', title='The C Programming Language(2nd Edition)', price=31.83}
                                                                                          Book{id=7, isbn='0321349529', title='C++ Primer(5th Edition)', price=55.56}
 12:03:25,623 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
12:03:25,624 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
 12:03:25,624 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
12:03:25,624 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
                                                                                         Book{id=9, isbn='0321349810', title='Python Crash Course', price=21.24}
 .
12:03:25,624 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
12:03:25,624 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
                                                                                          Book{id=10, isbn='1935182706', title='Scala in Depth', price=32.48}
 12:03:25,624 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
12:03:25,624 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo:
```

3. Create a new book with a new author(s) not yet persisted in your database. The book should belong to one of the category already persisted in your database. Save the book and the author(s) in the database.

java -jar .\target\insert-book-with-author-demo.jar edu.lix8.spring.jpa2.app.InsertBookWithAuthorDemo

2:03:25,624 INFO du.lix8.spring.jpa2.app.FindAllBooksDemo: 28 -

```
Category(name='Java', id-1)
Author[id=1, first_name='Rod', last_name='Johnson', description='an Australian computer specialist who created the Spring Framework and co
  :04:42,528 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 47:04:42,529 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 49
  ded SpringSource'}
:04:42,529 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 50 -
:04:42,529 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 45 -
                                                                          Book{id=2, isbn='0321349807', title='The Java Programming Language', price=31.75}
                                                                                Category{name='Java', id=1}
Author[id=2, first_name='Ken', last_name='Arnold', description='an American computer programmer well known as one of the developers of the
  Category(name='Java', id=1)
Author(id=3, first name='Kathy', last name='Sierra', description='She created the award-winning Head First programming book series that has
                                                                                Category{name='Java', id=1}
Author{id=4, first_name='Joel', last_name='Murach', description='He has written extensively on a wide range of Java, .NET, web, and databas
  :04:42,530 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 47
:04:42,531 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 49
  Category{name='Design Patterns', id=2}
Author{id=5, first name='Martin', last_name='Fowler', description='a British software developer, author and international public speaker o
  :04:42,531 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 47 -:04:42,531 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 49 -
  :84:42,531 INFO spring.jpa2.app.Insert8ookWithAuthorDemo:
:84:42,531 INFO spring.jpa2.app.Insert8ookWithAuthorDemo:
:84:42,531 INFO spring.jpa2.app.Insert8ookWithAuthorDemo:
:84:42,531 INFO spring.jpa2.app.Insert8ookWithAuthorDemo:
                                                                                Category{name='C/C++', id=3}
Author(id=6, first_name='Brian', last_name='Kernighan', description='a computer scientist who worked at Bell Labs alongside Unix creators'}
                                                                          Book{id=7, isbn='0321349529', title='C++ Primer(5th Edition)', price=55.56}
  :04:42,531 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 47 -
:04:42,532 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 49 -
                                                                                Category{name='C/C++', id=3}
Author{id=4, first_name='Doel', last_name='Murach', description='He has written extensively on a wide range of Java, .NET, web, and database
  :04:42,532 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 47 -: 04:42,532 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 49 -
                                                                                Category{name='C/C++', id-3}
Author{id=7, first_name='Stanley', last_name='Lippman', description='He has worked with Bjarne Stroustrup in Bell Laboratories during early
  :04:42,532 INFO spring.jpa2.app.InsertBookkithAuthorDemo: 49 — Author(id=7, first_name="Stanley", last_name="Lippman", description
ges of C++"):
:04:42,532 INFO spring.jpa2.app.InsertBookkithAuthorDemo: 50 —
:04:42,532 INFO spring.jpa2.app.InsertBookkithAuthorDemo: 45 - Book(id=9, isbm="0321349810", title="Python Crash Course", price=21.24)
                                                                                Category(name='Python', id=4)
Author(id=8, first_name='Eric', last_name='Matthes', description='He teaches high school math and science at a small school in southeast Ale
  :04:42,532 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 47
:04:42,532 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 49
  Category(name+'Scala', id-5)
Author(id-6, First_name-'Doh', last_name-'Suereth', description-'a Staff Software Engineer at Google LLC')
Author(id-11, first_name-'Martin', last_name-'Odersky', description-'a German computer scientist and professor of programming methods')
                                                                          Book{id=11, isbn='0321349819', title='Eloquent JavaScript', price=25.0}
  :04:42,533 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 47
:04:42,533 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 49
:04:42,533 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 50
:04:42,533 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 45
                                                                                Category{name='JavaScript', id=6}
Author(id=10, first_name='Marijn', last_name='Haverbeke', description='a programmer and tech writer in Berlin'}
                                                                                Author{id=12, first_name='Mario', last_name='Fusco', description='a senior softw
12:04:42,534 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 49
12:04:42,534 INFO spring.jpa2.app.InsertBookWithAuthorDemo: 50
```

The book and authors are added to the database

```
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                              PRICE
                                                                                                                                                                  Expert one one DZEE Design and Development
The Java Programming Language
Head First Java
Murach Java Programming (5th Edition)
Patterns of Enterprise Application Architectur
The C Programming Language(2nd Edition)
C++ Primer(5th Edition)
Murach C++ Programming
Python Crash Course
Scala in Depth
Loodent JavaScript
                                                                                                                                                                                                                                                                                                                                                                                                                             59.99
31.75
18.3
50.14
52.49
31.83
55.56
59.5
                                                                                                                                                                                                                                                                                                                                                                                                                               21.
12 rows in set (0.00 sec)
                                                                                                      LAST_NAME | DESCRIPTION
    ID | FIRST_NAME
                                                                                                                                                                        DESCRIPTION

an Australian computer specialist who created the Spring Framework and co-founded SpringSource
an American computer programmer well known as one of the developers of the 1980s
She Created the award-winning Head first programming book series that has sold over 1 million copies.
He has written extensively on a wide range of Java, .NET, web, and database technologies.
Be British software developer, author and international public speaker on software development
a computer scientist who worked at Bell Labs alongside Unix creators
He has worked with Bjarne Stroustrup in Bell Labsralor creators with the stroustrup in Bell school in southeast Alaska.

a programmer and tech writer in Beelin
a German computer scientist and professor of programming methods
a senior software engineer at Red Hat
a PhD candidate in Computer Science at the University of Cambridge
                           Rod
Ken
Kathy
Joel
Martin
Brian
Stanley
Eric
Josh
Marijn
Martin
Maro
Raoul-Gabriel
                                                                                                         Johnson
Arnold
Sierra
Murach
Fowler
Kernighan
Lippman
Matthes
Suereth
Haverbeke
Odersky
Fusco
Urma
     1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
  3 rows in set (0.00 sec)
     AUTHOR_ID | BOOK_ID
                                    in set
                                                                     (0.00 se
```

4. Delete the added book and the author(s) from the database.

java -jar .\target\delete-inserted-book-demo.jar edu.lix8.spring.jpa2.app.DeleteInsertedBookAndAuthorDemo

The book with ID = 12 and authors with ID = 12 and ID=13 are also deleted from the database

