Exercises: Spring Data Advanced Quering

This document defines the exercise assignments for the "Spring Data" course @ SoftUni.

For the following tasks use the **bookshop_system** database from the previous exercise. Make sure it has proper connections between the tables and it is populated with any sample data.

1. Books Titles by Age Restriction

Write a program that prints **the titles of all books**, for which the **age restriction** matches the given input (minor, teen or adult). **Ignore the casing** of the input.

Example

Input	Output
miNor	A che punto Ã¨ la note After Many a Summer Dies the Swan Ah …
teEN	All Passion Spent Wide Sea Antic Hay …

2. Golden Books

Write a program that prints **the titles of the golden edition books**, which have **less than 5000 copies**.

Example

Output
Behold the Man Bury My Heart at Wounded Knee The Cricket on the Hearth …

3. Books by Price

Write a program that prints **the titles and prices of books** with **price lower than 5** and **higher than 40**.

Example

Output
A che punto Ã¨ la note - $45.78 All the King's Men - $45.60 An Evil Cradling - $3.30

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Beyond the Mexique Bay - $45.45
…
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4. Not Released Books

Write a program that prints **the titles** of all books that are **NOT released** in a given year.

Example

Input	Output
2000	Absalom A che punto Ã¨ la note After Many a Summer Dies the Swan …
1998	A che punto Ã¨ la note Ah Wilderness! …

5. Books Released Before Date

Write a program that prints **the title, the edition type and the price** of books, which are **released before a given date**. The date will be in the **format dd-MM-yyyy**.

Example

Input	Output
12-04-1992	All Passion Spent PROMO 7.18 Bury My Heart at Wounded Knee GOLD 3.86 A Catskill Eagle NORMAL 15.78 …
30-12-1989	Bury My Heart at Wounded Knee GOLD 3.86 Consider the Lilies PROMO 30.89 The Curious Incident of the Dog in the Night-Time NORMAL 23.41 …

6. Authors Search

Write a program that prints **the names** of those authors, whose **first name ends with a given string**.

Example

Input	Output
e	George Powell Jane Ortiz

	Julie Washington
dy	Randy Morales Randy Graham

7. Books Search

Write a program that prints **the titles of books**, which **contain a given string** (regardless of the casing).

Example

Input	Output
sK	A Catskill Eagle The Daffodil Sky The Skull Beneath the Skin
WOR	Great Work of Time Terrible Swift Sword

8. Book Titles Search

Write a program that prints **the titles of books**, which are **written by authors**, whose **last name starts with a given string**.

Example

Input	Output
Ric	Arms and the Man (Amanda Rice) ... Book Title (Authors first and last name) **Check results manually in DB, because we insert random Authors for every books.**
gr	Cover Her Face (Brenda Griffin) ... Book Title (Authors first and last name) **Check results manually in DB, because we insert random Authors for every books.**

9. Count Books

Write a program that prints **the number of books**, whose **title is longer than a given number**.

Example

Input	Output	Comments
12	174	There are 174 books with longer titles than 12 symbols.
40	2	There are 2 books with longer titles than 40 symbols.

10. Total Book Copies

Write a program that prints **the total number of book copies by author**. Order the results **descending by total book copies**.

Example

Output
Randy Graham - 196584 **Check results manually in DB, because we insert random Authors for every books.**

11. Reduced Book

Write a program that prints **information** (**title**, **edition type**, **age restriction** and **price**) for a book **by given title**. When retrieving the book information **select only those fields** and **do NOT include any other information** in the returned result.

Example

Input	Output
Things Fall Apart	Things Fall Apart GOLD ADULT 40.02

12. * Increase Book Copies

Write a program that **increases the copies of all books released after a given date with a given number**. Print the total amount of book copies that were added.

Input

- On the **first line** – date in the format **dd MMM yyyy.** If a book is released after that date (exclusively), increase its book copies with the provided number from the second line of the input.
- On the **second line** – the number of **book copies** each book should be increased with.

Output

- **Total number of books** that were added to the database.

Example

Input	Output	Comments
12 Oct 2005 100	6100	61 books are released after 12 Oct 2005, so a total of 6100 book copies were added.
06 Jun 2013 44	572	13 books are released after 6 Jun 2013, so a total of 572 book copies were added.

13. * Remove Books

Write a program that **removes from the database** those **books**, which **copies are lower than a given number**. Print the **number of books that were deleted** from the database.

14. * Stored Procedure

Using Workbench (or other similar tool) **create a stored procedure**, which receives an **author's first and last name** and returns the **total amount of books the author has written**. Then write a **program** that **receives an author's name** and prints the **total number of books** the author has written by **using the stored procedure** you've just created.

Example

Input	Output
Amanda Rice	Amanda Rice has written 9 books **Check results manually in DB, because we insert random Authors for every books.**
Christina Jordan	**{Author first and last name} has writtent {number of books} books**
Wanda Morales	**{Author first and last name} has writtent {number of books} books**