C2-S4-PRACTICE

NOTE: check your **THEORY slides** to answer those questions!

EXERCISE 1 – BOOK & AUTHORS

We want to manage books and authors:

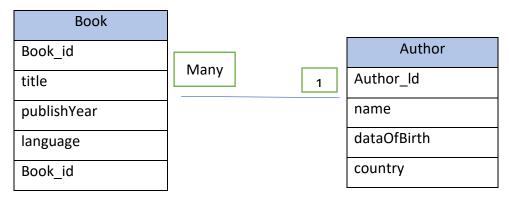
- ✓ A book has always 1 author only
- ✓ An author could write many books.

Author
authorld
name
dateOfBirth
country

Book
bookld
title
publishYear
language

Q1 – What is the relation between Book and Author tables?

o Complete the missing attributes or table to allow this relation



Q2 – For each table, complete the following arrays, by specifying for each attribute:

- o The field type (SQL type) and size
- o Can be null or not?
- o Is a primary key or foreign keys?

AUTHOR TABLE

Attribute name	Type / size	Can be Null?	Key
Author_id	int	yes	PK
name	varchar	yes	
dateOfBirth	molen	yes	
country	varchar	yes	

BOOK TABLE

Attribute name	Type / size	Can be Null?	Key
Book_id	int	yes	PK
title	varchar	yes	
publishYear	date	yes	
language	varchar	yes	
Author_id		yes	FK

Q3 – Write the SQL statement to create the 2 tables with appropriate properties

MariaDB [story]>						
Field	Type	Null	Key	Default	Extra	
Author_id name date_of_birth country	varchar(200) date varchar(200)	NO YES YES YES	PRI	NULL NULL NULL NULL	auto_increment	
	030					

MariaDB [story]:	> describe book	5;	L		
Field	Туре	Null	Key	Default	Extra
Book_id title publish_year language	` '	YES YES	PRI	NULL NULL NULL NULL	auto_increment
author_id	int(11)	NO	MUL	NULL	

Q4- Write the statement to insert 5 books and 5 authors

5 books

Book_id	title	publish_year	language	author_id
	The stany of Dka Spanus	 1938-10-01	Khrme	++ 4
1	The story of Pka Sropun			
2	Pailin Rose Story	0000-00-00	Khrme	1
3	Techo Yot	0000-00-00	Khrme	5
4	Tumteav story	0000-00-00	Khrme	3
5	Reamker story	0000-00-00	Khrme	2

❖ 5 authors

```
MariaDB [story]> select * from author;
 Author_id | name
                          | date_of_birth | country
         1 | Nguon Som
                          1928-02-10
                                           Cambodia
         2 | Rimkin
                          1942-05-30
                                           Cambodia
         3 | Nou Hach
                          1972-09-30
                                           Cambodia
         4 | Nhok Them
                          1936-12-26
                                           Cambodia
         5 | Ti Chi Huot
                           1926-12-26
                                           Cambodia
```

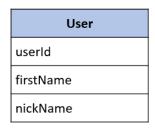
o Find the book and author information on the Internet

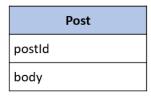
Q5— Write the SQL statement to delete 3 of your books from the database

EXERCISE 2 – USERS & POSTS

We want to manage users and posts (like posts on Facebook)

- A post is related to 1 user only
 - o A post has a body (the text of the post)
- User can have many posts
 - o A user has a first name, and a nick name (optional)





Q1 – What is the relation between User and Post Table?

o Complete the missing attributes or table to allow this relation



Q2 – For each table, complete the following arrays, by specifying for each attribute:

- o The attribute type (SQL type) and size
- o Can be null or not?
- o Is a primary key or foreign keys?

USER TABLE

Attribute name	Type / size	Null?	Key
Userld_id	int	no	PK
firstName	varchar	yes	
nickName	varchar	yes	

POST TABLE

Attribute name	Type / size	Null?	Key
Post_id	int	no	PK
body	varchar	yes	
Userld_id		no	FK

Q3 – Write the SQL statement to create the 2 tables with appropriate properties

```
MariaDB [users]> desc user;
 Field
                           | Null | Key | Default |
            Type
 post_id
             int(11)
                             NO
                                    PRI |
                                          NULL
                                                     auto_increment
             varchar(200)
                             YES
 fist name
                                          NULL
            varchar(200)
 nick name
 rows in set (0.026 sec)
```

Q4- Write the statement to insert the following users and posts

Notes:

- ---- means: no value (the nickname is optional!)
- We don't specify the KEY, it's your business!

USERS

First name	Nick name
Ronan	roro
Sokea	
Edouard	doudou

```
MariaDB [users]> select * from user;

+------+

| post_id | fist_name | nick_name |

+-----+

| 1 | Ronan | ---- |

2 | Sokea | roro

| 3 | Edouard | doudou |

+-----+
```

POSTS

Post body	From
Hello all !	Ronan
I like rice	Ronan
YES YES	Sokea

Q5- Write the statement to delete the user Edouard

- What's happen? Can we delete it? Why?

```
MariaDB [users]> select * from user;

+-----+

| user_id | fist_name | nick_name |

+-----+

| 1 | Ronan | ---- |

| 2 | Sokea | roro |

+------+
```

Q6– Write the statement to delete the user Ronan

- What's happen? Can we delete it? Why?

- Cannot delete because it is a foreign key we want to delete we can log in to the user .
- **Q7–** Write SQL statement to remove the rows related to Ronan user:
 - Hello all!
 - I like rice

Q8– now try again to delete the user Ronan

- What's happen? Can we delete it? What can you conclude?

```
MariaDB [users]> select * from user;

+-----+

| user_id | fist_name | nick_name |

+-----+

| 2 | Sokea | roro |

+-----+

1 row in set (0.000 sec)
```

- **Q9** Add a new POST in the POST table with a userId which does not exist in the User table (ex: 45)
 - What's happen? Why?
 - can not add the new post because it doesn't user id in the user.