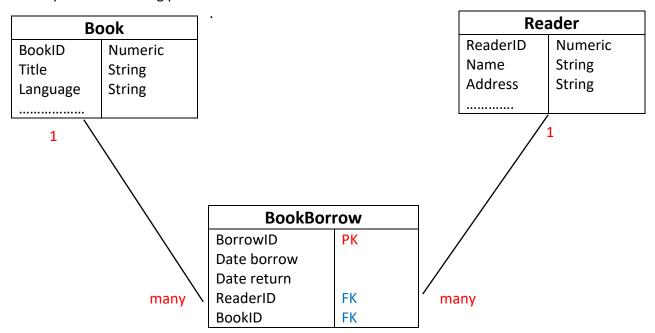
C1- S4-PRACTICE

Exercice 1

- Q1 Complete the attributes types of Book and Read entities (5 points)
- Q2 Complete the relation between the Book and Reader entities (5 points)

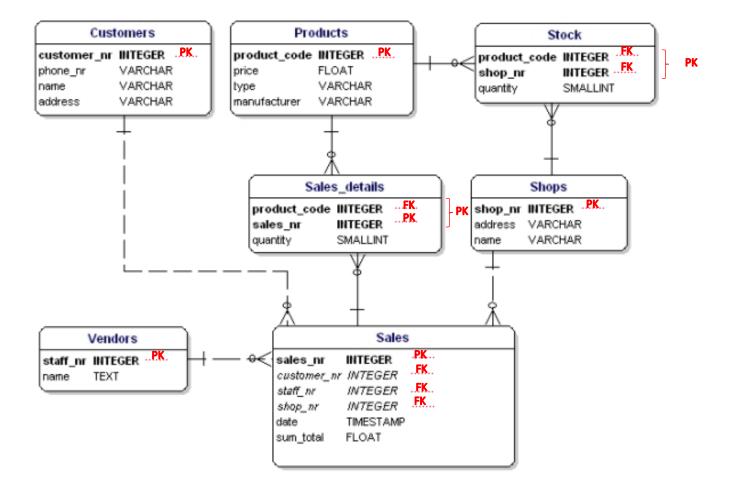
Book			Read	er
BookID	Numeric		ReaderID	Numeric
Title	String	manv man	Name	String
Publishment date	DateTime	many man	Class	String
Language	String		Address	String

- Q3 We have created an **additional Associative table** to manage the previous relation between the Book and the Reader
 - ⇒ Complete the missing parts!



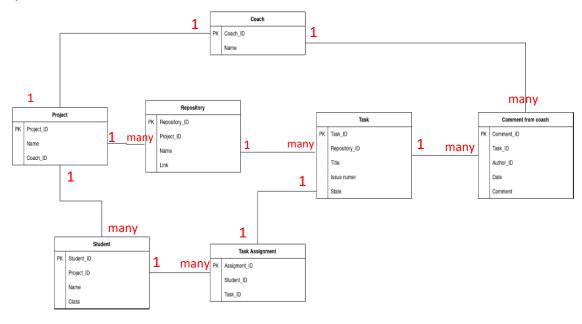
Exercise 2

Q1: complete the missing part of the model diagram below with PK as the primary or FK foreign key.



Exercise 3

Q1: Complete the relation between each entity on the database relation model. Take for example the relation between **STUDENTS** and **PROJECTS**.



Exercise 4

Google Classroom is the tool used to manage PNC classes, where the teacher can assign homework to the students of different classes.

Q1: Complete the attributes types in the following tables

User				
user ID	Numeric			
email	String			
password	Numeric			
name	String			
role	String			

Classroom				
classroom ID	Numeric			
name	String			
section	String			
subject	String			

Assignment				
assignment ID	Numeric			
title	String			
description	String			
deadline	DateTime			

Comment					
comment ID	Numeric				
content	String				
user ID	Numeric				
assignment ID	Numeric				

Here are some observations that can help us design the Google Classroom database:

- A user can create many classrooms as a teacher
- A user can join many classrooms as a student
- A classroom can have many teachers
- A classroom can have many students
- A teacher can post many assignments in a classroom, and the same assignment can be posted in several classrooms
- An assignment post can have many comments from students or teachers

Q2 CLASSROOM and ASSIGNMENT

- 1. Type of relation: one to one, one to many, many to many?
 - Many to many
- 2. Do you need to create an intersection table? Why?
 - Yes, I do. because it's many to many relationships.
- 3. Create the ERD representing to represent those 2 entities and their relation

Classro	oom		Classroom_Assignment		Classroom_Assignment			Assignment	
classroom ID	Numeric						assignment	Numeric	
name		1 man	y ID	classroom ID	Assignment ID	many 1	ID		
section	String				-		title	String	
subject	String						description	String	
_	String						deadline	DateTime	

- 1. Type of relation: one to one, one to many, many to many
 - One to many
- 2. Do you need to create an intersection table or not? Why?
 - No, I don't. Because it's one to many relationships.
- 3. Update the previous ERD to represent those 2 entities and their relation

Commen			Assign	nment	
comment ID content user ID assignment ID	Numeric String Numeric Numeric	Many	1	assignment ID title description deadline	Numeric String String DateTime

Q4: **COMMENT** and **USER**

- 1. Type of relation: one to one, one to many, many to many?
 - One to many
- 2. Do you need to create an intersection table or not? Why?
 - No, I don't. Because it's one to many relationships.
- 3. Update the previous ERD to represent those 2 entities and their relation

Comment				Us	er
comment ID content user ID assignment ID	Numeric String Numeric Numeric	Many	1	user ID email password name role	Numeric String Numeric String String