UD5
Activity 2

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ÍNDICE

Objective

To learn how to improve the design of a database by correctly separating information through normalization up to Second Normal Form (2NF).

Description

A library stores information about book loans in a single table with the following structure:

BookCode	Title	Author	Publisher	ReaderName	ReaderDate
1001	Variable Compleja	Murray Spiegel	McGraw Hill	Pérez Gómez, Juan	15/04/2014
1004	Visual Basic	E. Petroustsos	Anaya	Ríos Terán, Ana	17/04/2014
1005	Estadística	Murray Spiegel	McGraw Hill	Roca, René	16/04/2014
1006	Oracle University	Nancy Greenberg	Oracle Corp.	García Roque, Luis	20/04/2014
1007	Clipper 5.01	Ramalho	McGraw Hill	Pérez Gómez, Juan	18/04/2014

1007 Clipper 5.01 Ramalho McGraw Hill Pérez Gómez, Juan 18/04/2014

Tasks

Based on the table above, complete the following steps:

1. Transform the table into First Normal Form (1NF).

BookCode	Title	Author	Publisher	ReaderFirstName	ReaderLastName	ReaderDate
1001	Variable Compleja	Murray Spiegel	McGraw Hill	Juan	Pérez Gómez	15/04/2014
1004	Visual Basic	E. Petroustsos	Anaya	Ana	Ríos Terán	17/04/2014
1005	Estadística	Murray Spiegel	McGraw Hill	René	Roca	16/04/2014
1006	Oracle University	Nancy Greenberg	Oracle Corp.	Luis	García Roque	20/04/2014
1007	Clipper 5.01	Ramalho	McGraw Hill	Juan	Pérez Gómez	18/04/2014

2. Using the result, transform it into Second Normal Form (2NF).

id_autor	Author
1	E. Petroustsos
2	Murray Spiegel
3	Nancy Greenberg
4	Ramalho

id_publisher	Publisher
1	McGraw Hill
2	Anaya
3	Oracle Corp.

id_reader	ReaderFirstName	ReaderLastName
1	Juan	Pérez Gómez
2	Ana	Ríos Terán
3	René	Roca
4	Luis	García Roque

BookCode	id_autor	id_publisher	id_reader	Title	ReaderDate
1001	1	1	1	Variable Compleja	15/04/2014
1004	2	2	2	Visual Basic	17/04/2014
1005	1	1	3	Estadística	16/04/2014
1006	3	3	4	Oracle University	20/04/2014
1007	4	4	1	Clipper 5.01	18/04/2014

3. Show the final tables obtained after applying 2NF, indicating their primary keys.

#BookCode	id_autor	id_publisher	id_reader	Title	ReaderDate
1001	1	1	1	Variable Compleja	15/04/2014
1004	2	2	2	Visual Basic	17/04/2014
1005	1	1	3	Estadística	16/04/2014
1006	3	3	4	Oracle University	20/04/2014
1007	4	4	1	Clipper 5.01	18/04/2014

Notes

- For this exercise, each book has a single author.
- The library needs to be able to search and sort readers and authors by first name and last name.

Submission

Export the document as a PDF file and submit it through Google Classroom.