



Academia Xideral

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“JPA”

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JPA

In this work, we create a database focused on book management, using MySQL and JPA. The database includes a table to record book information such as title, author, publication date.

The columns of my table:

```
CREATE TABLE `books` (  
  `id` int(10) NOT NULL AUTO_INCREMENT,  
  `Title` varchar(64) DEFAULT NULL,  
  `Author` varchar(64) DEFAULT NULL,  
  `Category` varchar(64) DEFAULT NULL,  
  `Year` int DEFAULT NULL,  
  PRIMARY KEY (`id`)  
)
```

The tasks that we can perform in the program:

```
public interface BookDAO {  
  
    void save(Book theBook);  
    Book findById(Integer id);  
    List<Book> findAll();  
    List<Book> findByAuthor(String author);  
    void update(Book theBook);  
}
```

Table data with default values added from the database:

id	Title	Author	Category	Year
1	To Kill a Mockingbird	Harper Lee	Fiction	1960
2	1984	George Orwell	Dystopian	1949
3	One Hundred Years of Solitude	Gabriel García Márquez	Magical Realism	1967
4	The Great Gatsby	F. Scott Fitzgerald	Fiction	1925
5	War and Peace	Leo Tolstoy	Historical Fiction	1869
6	Pride and Prejudice	Jane Austen	Romance	1813
7	The Catcher in the Rye	J.D. Salinger	Fiction	1951
8	Crime and Punishment	Fyodor Dostoevsky	Psychological Fiction	1866
9	The Hobbit	J.R.R. Tolkien	Fantasy	1937
10	Don Quixote	Miguel de Cervantes	Adventure	1605
NULL	NULL	NULL	NULL	NULL

Table data after modifying it with the program:

id	Title	Author	Category	Year
1	To Kill a Mockingbird	Harper Lee	Fiction	1960
2	1984	George Orwell	Dystopian	1949
3	One Hundred Years of Solitude	Gabriel García Márquez	Magical Realism	1967
4	The Great Gatsby	F. Scott Fitzgerald	Fiction	1925
5	War and Peace	Leo Tolstoy	Historical Fiction	1869
6	Pride and Prejudice	Jane Austen	Romance	1813
7	The Catcher in the Rye	J.D. Salinger	Fiction	1951
8	Crime and Punishment	Fyodor Dostoevsky	Psychological Fiction	1866
9	The Hobbit	J.R.R. Tolkien	Fantasy	1937
10	Don Quixote	Miguel de Cervantes	Adventure	1605
11	Initial Book	Initial Author	Category	2023
12	Updated Title	J.D. Salinger	Fiction	1951
13	Brave New World	Aldous Huxley	Dystopian	1932
14	The Great Gatsby	F. Scott Fitzgerald	Fiction	1925
15	Moby-Dick	Herman Melville	Adventure	1851
16	The Lord of the Rings	J.R.R. Tolkien	Fantasy	1954
17	Don Quixote	Miguel de Cervantes	Adventure	1605
18	One Hundred Years of Solitude	Gabriel García Márquez	Magical Realism	1967
19	War and Peace	Leo Tolstoy	Historical Fiction	1869
20	Pride and Prejudice	Jane Austen	Romance	1813
21	Crime and Punishment	Fyodor Dostoevsky	Psychological Fiction	1866
22	New Book	Author Name	Category	2024
NULL	NULL	NULL	NULL	NULL