Design a class **Book** containing following members:

bookID text

title text

author text

category text

price double

Define Parameterized constructor to initialize Book object. Perform the below validations

* • Category must be “Science”, “Fiction”, “Technology” or “Others”
* • Price cannot be negative
* • bookID must start with ‘B’ and must be of length 4 characters

If any of the validations fail, throw an user defined exception **InvalidBookException**.

Design a class called **BookStore** which contains an appropriate collection object to store Book instances.

Implement the below operations.

1. addBook(Book b) To add a new Book object into the book table

2. searchByTitle(String title) Search a book from DB based on title and if found, display the details

3. searchByAuthor(String author) Search a book from DB based on author and if found, display the details

4. displayAll() Print the details of all the books

Store both classes in a package **com.book**.

Create a class **BookUtil** in package **com.bookutil** which has the main method.

* • Instantiate the BookStore class
* • Read data from user for 3 Book objects.
* • Call the addBook method to add the book objects into the collection
* • Search the books by title and author
* • Display all the book details

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| **Q 1** | **Steps** | **Marks** |
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