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Class: 3A

Lab 2 Question: Create a class Book that contains four members: name, author, price, and num_pages. Include a constructor to set the values for the members. Include methods to set and get the details of the objects. Include a toString( ) method that could display the complete details of the book. Develop a Java program to create n book objects.

Program:

Book database.

```java
import java.util.Scanner;

class Books
{
    String name;
    String author;
    int price;
    int numPages;

    Books() {}
    Books (String name, String author, int price, int numPages)
    {
        this.name = name;
        this.author = author;
        this.price = price;
        this.numPages = numPages;
    }
    public String toString ()
    {
        String name, author, price, numPages;
        name = "Book name: " + this.name + "\n";
        author = "Author name: " + this.author + "\n";
        price = "Price: " + this.price + "\n";
        numPages = "number of pages: " + this.numPages + "\n";

        return name + author + price + numPages;
    }
}
```

```java
class Main
{
    public static void main (String args [])
    {
        Scanner s = new Scanner (System.in);
        int n;

        String name;
        String author;
        int price;
        int numPages;
        System.out.println ("Enter the number of books :");
        n = s.nextInt ();

        Books b[];
        b = new Books [n];

        for (int i = 0; i < n; i++)
        {
            System.out.println (" Book "+ (i+1) + ": ");
            System.out.print ("Enter name of book: ");
            name = s.next ();
            System.out.print ("Enter author : ");
            author = s.next ();
            System.out.print ("Enter price : ");
            price = s.nextInt ();
            System.out.print ("Enter no of pages : ");
            numPages = s.nextInt ();
            b[i] = new Books(name, author, price, numPages);
        }
```

```
for (int i = 0; i < n; i++)
    System.out.println( "Book# "+(i+1) + ":\n"+ b[i]);
        }
    }
}
```

Output:

Enter the number of book : 2

Book 1 :

Enter the name of the book: Jungle-Book
Enter the author of the book : Rudyard-Kipling
Enter the psice of the book : 1000
Enter the number of pages of the book : 500

Book 2 :

Enter the name of the book : Tales-Of-Akbar-And-Bubal
Enter the author of the book : Bubal
Enter the psice of the book : 900
Enter the number of pages of the book : 400

Book 1 :

Book name : Jungle-Book
Author : Rudyard-Kipling
Price : 1000
Number of pages : 500

Book 2 :

Book name : Tales-Of-Akbar-And-Bubal
Author : Bubal
Price : 900
Number of pages : 400

Output:


```
D:\>cd D:\BMSCE\Academics\Semester III\Object Oriented JAVA Programming\Lab Programs\Lab2_Book_Database

D:\BMSCE\Academics\Semester III\Object Oriented JAVA Programming\Lab Programs\Lab2_Book_Database>javac Lab2_Book_Database.java

D:\BMSCE\Academics\Semester III\Object Oriented JAVA Programming\Lab Programs\Lab2_Book_Database>java Main
Enter the number of books: 2
Book 1:
Enter the name of the book: Jungle_Book
Enter the author of the book: Rudyard_Kipling
Enter the price of the book: 1000
Enter the number of pages of the book: 500

Book 2:
Enter the name of the book: Tales_Of_Akbar_and_Birbal
Enter the author of the book: Birbal
Enter the price of the book: 900
Enter the number of pages of the book: 400

Book 1:
Book name: Jungle_Book
Author name: Rudyard_Kipling
Price: 1000
Number of pages: 500
Book 2:
Book name: Tales_Of_Akbar_and_Birbal
Author name: Birbal
Price: 900
Number of pages: 400
```