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Lab program 3

- (Q) Create a class Book which contains four members : name, author, price, numPages. 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.

Code: `import java.util.*;`
`class Books {`

`String name;`
`String author;`
`int price;`
`int numPages;`

`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 + "
" + "

price = "Price :" + this.price + "
" + "

numPages = "Number of pages :" +
this.numPages + "
" + "

return name + author + price + numPages;

public class Main {

 public static void main (String[] args)

 Scanner sc = new Scanner (System.in);

 int n;

 int i;

 String name;

 String author;

 int price;

 int numPages;

 System.out.println ("Enter the
 number of books : (n)");

 n = sc.nextInt();

 Books b[];

 b = new Books [n];

 for (i=0; i<n; i++) {

 System.out.print ("Enter the
 name of the book");

 name = sc.next();

 System.out.print ("Enter the
 name of the author");

 author = sc.next();

System.out.println("Enter the price
of the book");

price = sc.nextInt();

System.out.println("Enter the
number of pages of the book");

numPages = sc.nextInt();

b[i] = new Books(name, author,
price, numPages);

System.out.println("Displaying the
book details.");
for (i=0; i<n; i++) {

System.out.println("Book details
are:") + (i+1) + "\n" +
b[i].toString());

Output

Enter the number of books: 3

Enter the name of the book

Apple

Enter the name of the author

Alice

Enter the price of the book

250

Enter the number of pages of the book
200

Enter the name of the book

Banana

Enter the name of the author

Enid

Enter the price of the book

700

Enter the number of pages of the book

1000

Enter the name of the book

Famous

Enter the author of the book

Enter the name of the author

Thea

Enter the price of the book

450

Enter the number of pages of the book

150

Displaying the book details:

Book details are %1

Book name: Apple

Author: Alice

Price: 250

Number of pages: 200

~~Book details are %2~~

~~Book name: Banana~~

~~Author: Enid~~

~~Price: 700~~

~~Number of pages: 1000~~

Book details are :-

Book name :- Famous

Author :- Thea

Price :- 450

Number of pages :- 150

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