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1BM21CS254

WEEK 3 OOI LAB

Q: Create a class Book which contains four members: name, author, price, 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.

Code:

```
import java.util.Scanner;

class book{

    String author;

    String name;

    int price;

    int num_pages;

    book(String name1,String author1,int price1,int pages){

        name=name1;

        author=author1;

        price=price1;

        num_pages=pages;

    }

    book(){

    }

    void setdetails(){
```

```

Scanner sc=new Scanner(System.in);
System.out.print("enter name of book: ");
name=sc.nextLine();
System.out.print("enter author's name: ");
author=sc.nextLine();
System.out.print("enter price of book: ");
price=sc.nextInt();
System.out.print("enter num of pages: ");
num_pages=sc.nextInt();
System.out.println("DETAILS SET SUCCESSFULLY :)");
}
void getdetails(){
    System.out.println("NAME: "+name);
    System.out.println("AUTHOR: "+author);
    System.out.println("PRICE: "+price);
    System.out.println("NUM_PAGES: "+num_pages);
}
public String toString(){
    return("NAME: "+name+" AUTHOR: "+author+" PRICE: "+price+" NUM_PAGES: "+num_pages);
}
}
class book1{
    public static void main(String args[]){
        int n;
        System.out.println("enter the number of books: ");
        Scanner sc=new Scanner(System.in);
        n=sc.nextInt();
        book b1[]= new book[n];
        for(int j=0;j<n;j++){

```

```

System.out.println("ENTER DETAILS");

System.out.println("1:set using constructor\n2:set using method");

int ch=sc.nextInt();

if(ch==2){

    b1[j]=new book();

    b1[j].setdetails();

}

else{

    b1[j]=new book("TINKLE","ANONYMOUS",20,100);

}

}

for(int j=0;j<n;j++){

    System.out.println("\nPRINTING BOOK DETAILS");

    System.out.println("1:display using method\n2:display using toString");

    int ch=sc.nextInt();

    if(ch==1){

        b1[j].getdetails();

        System.out.println();

    }

    else{

        String details=b1[j].toString();

        System.out.println(details);

    }

}

}

}

```

Output

```
C:\Users\Admin\Desktop\1722>java Book1
enter the number of books:
2
ENTER DETAILS
1:set using constructor
2:set using method
2
enter name of book: lmao
enter author's name: rfgg
enter price of book: 22
enter num of pages: 22
DETAILS SET SUCCESSFULLY :)
ENTER DETAILS
1:set using constructor
2:set using method
1

PRINTING BOOK DETAILS
1:display using method
2:display using toString
1
NAME: lmao
AUTHOR: rfgg
PRICE: 22
NUM_PAGES: 22

PRINTING BOOK DETAILS
1:display using method
2:display using toString
2
NAME: TINKLE AUTHOR: ANONYMOUS PRICE: 20 NUM_PAGES: 100
```