Details of a Book (Input & display of the details of book using toString())

```
import java.util.Scanner;
class Books{
    String name;
    String author;
    int price;
    int num_pages;
    public void set(int i){
        Scanner in = new Scanner(System.in);
        System.out.println("Enter details of book "
        +(i+1)+" in name, author, price, num_pages
        order");
        name = in.next();
        author = in.next();
        price = in.nextInt();
        num_pages = in.nextInt();
    }
    public String toString(int i){
        return "Details of Book " + (i+1) + "\n" +
        "Name : " +name + "\n" +
        "Author = " +author + "\n" +
        "Price : " +price + "\n" +
        "No. of pages : " + num_pages;
    } public void get(int i){
        String S = toString(i);
        System.out.println(S);
    }
}
class Main{
    public static void main(String[] args){
        int n;
        Scanner in = new Scanner(System.in);
        System.out.println("Enter number of book
        n = in.nextInt();
        Books b[] = new Books[n];
        for(int i=0; i<n; i++){
            b[i] = new Books();
            b[i].set(i);
        }
        System.out.println();
```

```
for(int i=0 ; i<n ; i++){
    System.out.println(b[i].getString(i));
}
}
}
```

Algorithm:

Step 1 : Start

Step 2 : Initialize variable under structure

```
struct Book{
    String name;
    String author;
    int price;
    int num_pages;
};
```

Step 3 : ~~for(i=0 ; i<n ; i++~~ Read n.

Step 4 : for(i=0 ; i<n ; i++){

Print "Enter details of the book"

~~name = in.next()~~ Read b.name[i]

b.author[i], b.price[i], b.num_pages[i]

} continue until it breaks the loop.

Step 5 : Print "Display details of books"

```
for (i=0 ; i<n ; i++){
    Print "Name   " + b.nam[i]
    Print "Author   " + b.author[i]
    Print "Price :   " + b.price[i]
    Print "No. of pages :" + b.num_pages[i]
}
```

~~Step 6 : Stop.~~

Step 6 : Stop.

Enter number of books:
2
Enter details of book1 in name, author, price, num_pages order
ajhjd spb 299 90
Enter details of book2 in name, author, price, num_pages order
dbth ejc 300 200

Display:
Details of Books1
Name ajhjd
Author spb
Price 299
No. of pages 90

Details of Books2
Name dbth
Author ejc
Price 300
No. of pages 200

Develop a Java program to create an abstract class to find the area of Rectangle, Triangle and circle.

```
import java.util.Scanner;
abstract class Shape{
    int a, b;
    abstract void printArea();
}
class Rectangle extends Shape{
    Rectangle(int l, int br){
```

```
Microsoft Windows [Version 10.0.22621.2715]
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D:\java\oops>javac D.java

D:\java\oops>java D
Name: Aditya Dinesh Netrakar
USN: 1BM22CS017
Enter number of books
2
Enter details of books 1 in name,author,price,num_pages order
ajhjd spb 299 90
Enter details of books 2 in name,author,price,num_pages order
dbfh eje 300 200

Details of Book 1
Name: ajhjd
Author: spb
Price: 299
No of pages: 90
Details of Book 2
Name: dbfh
Author: eje
Price: 300
No of pages: 200
```