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class Main {
public static void main(String args[]){
 System.out.println("Hello Everybody!! Welcome to the Calculator
App!");
 displayMenu();
 UserInput input = new UserInput();
 Calculator calc = new Calculator();
 int choice = input.choice();
 switch (choice) {
 case 1:
 calc.addition();
break;
 case 2:
 calc.subtraction();
break;
 case 3:
 calc.multiplication();
break;
 case 4:
 calc.division();
break;
 case 5:
 calc.sumOfArray();
break;
 case 6:
 calc.varianceOfArray();
break;
 case 7:
 calc.stdDevOfArray();
break;
 }
 }
public static void displayMenu() {
 System.out.println("Select What you want to Do:");
 System.out.println("1. Addition");
 System.out.println("2. Subtraction");
 System.out.println("3. Multiplication");
 System.out.println("4. Division");
 System.out.println("5. Sum of Array");
 System.out.println("6. Variance of Array");
 System.out.println("7. Standard Deviation of Array")
}
}
```

```
import java.io.*;
import java.util.*;
class UserInput {
public static int choice() {
 Scanner scanner = new Scanner(System.in);
 System.out.println("Enter Number from 1 to 7: ");
 int input = scanner.nextInt();
 return input;
}
public static int num() {
 Scanner scanner = new Scanner(System.in);
 int num = scanner.nextInt();
 return num;
}
public static int[] inputArray() {
 Scanner scanner = new Scanner(System.in);
 int[] array = new int[5];
 System.out.println("Enter 5 Elements for the Array: ");
 for(int i = 0 ; i < 5 ; i++) {
 System.out.println("Element " + (i+1) + ": ");
 array[i]=scanner.nextInt();
 }
 return array;
}
}
```

```
import java.io.*;
import java.util.*;
import java.lang.*;
class Calculator {
public static void addition() {
 UserInput input = new UserInput();
 System.out.println("Enter First Number: ");
 int num1 = input.num();
 System.out.println("Enter Second Number: ");
 int num2 = input.num();
 int add = num1 + num2;
 System.out.println("The Sum of " + num1 + " and " + num2 + " is: "
+ add);
}
public static void subtraction() {
 UserInput input = new UserInput();
 System.out.println("Enter First Number: ");
 int num1 = input.num();
 System.out.println("Enter Second Number: ");
 int num2 = input.num();
 int sub = num1 - num2;
 System.out.println("The Subtraction of " + num2 + " from " + num1 +
" is: " + sub);
}
public static void multiplication() {
 UserInput input = new UserInput();
 System.out.println("Enter First Number: ");
 int num1 = input.num();
 System.out.println("Enter Second Number: ");
 int num2 = input.num();
 int mul = num1 * num2;
 System.out.println("The Multiplication of " + num1 + " and " + num2
+ " is: " + mul);
}
public static void division() {
 UserInput input = new UserInput();
 System.out.println("Enter First Number: ");
 int num1 = input.num();
 System.out.println("Enter Second Number: ");
 int num2 = input.num();
 int div = num1/num2;
 System.out.println("The Division of " + num1 + " by " + num2 + "
is: " + div);
}
public static void sumOfArray() {
 UserInput input = new UserInput();
 int[] array = input.inputArray();
 int sum = 0;
 for(int i = 0 ; i < 5 ; i++) {
 sum = sum + array[i];
```

```
 }
 System.out.println("The Sum of the Array is: " + sum);
}
public static void varianceOfArray() {
 UserInput input = new UserInput();
 int[] array = input.inputArray();
 int mean = 0;
 for(int i = 0 ; i < 5 ; i++) {
 mean = mean + array[i];
 }
 mean = mean / 5;
 int deviation=0;
 int temp;
 for(int i = 0 ; i < 5 ; i++) {
 temp = array[i] - mean;
 deviation = deviation + (temp * temp);
 }
 int variance = deviation / 5;
 System.out.println("The Variance of the Array is: " + variance);
}
public static void stdDevOfArray() {
 UserInput input = new UserInput();
 int[] array = input.inputArray();
 int mean = 0;
 for(int i = 0 ; i < 5 ; i++) {
 mean = mean + array[i];
 }
 mean = mean / 5;
 double deviation=0;
 int temp;
 for(int i = 0 ; i < 5 ; i++) {
 temp = array[i] - mean;
 deviation = deviation + (temp * temp);
 }
 double variance = deviation / 5;
 double stddev = Math.sqrt(variance);
 System.out.println("The Standard Deviation of the Array is: " +
stddev);
}
}
```

```
import java.io.*;

class Fibonaci{
    public static void main(String args[]){
        int number=Integer.parseInt(args[0]);
        for(int i=0;i<number;i++){
            System.out.println(fibonacci(i)+"");
    }

}
    public static int fibonacci(int n){
        if (n<=1){
            return n;
        }
        else{
            return fibonacci(n-1)+fibonacci(n-2);
        }
    }
}
```