Arithmetic Calculator Source Code

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Class arithCalc :

```
package package1;

import java.util.Scanner;
import java.io.*;

public class arithCalc {

	public static void main(String[] args)
	{
		boolean flag=false;
		int input=0;
		int c;
		int x1,x2,x3;
		Scanner sc = new Scanner(System.in);
		do {
			System.out.println("******************** MAIN MENU
********************");
			System.out.println("Choose \n1 for Addition \n2 for Subtraction");
			System.out.println("3 for Multiplication \n4 for Division");
			System.out.println("5 to Exit");
			System.out.println("-----------------------------------------------
---");


			System.out.println("Enter you choice:");
			input = sc.nextInt();
			switch(input) {
			case 1 :
				System.out.println("------------------ Addition ---------------
-");
				System.out.println("Do you want to add 2 numbers or 3
numbers?");
				int n =sc.nextInt();
				int sumRes=0;
				sumClass objs = new sumClass();
				if(n==2) {
					System.out.println("Enter two numbers:");
					x1=sc.nextInt();
					x2=sc.nextInt();
					sumRes=objs.sum(x1,x2);
					System.out.println("Sum: "+sumRes+"\n\n");
				}
				else if(n==3) {
					System.out.println("Enter three numbers:");
					x1=sc.nextInt();
					x2=sc.nextInt();
					x3=sc.nextInt();
					sumRes=objs.sum(x1, x2, x3);
					System.out.println("Sum: "+sumRes+"\n\n");
				}
				else {
					System.out.println("Cannot add more than 3
numbers!!!");
```

```
                                System.out.println("Try again.\n\n");
                                flag=true;
                                break;
                        }
                        System.out.println("Do you want to try again? \n Enter 1 for
Yes and 0 for No");
                        c=sc.nextInt();
                        if(c==1) {
                                flag=true;
                                break;
                        }
                        else {
                                System.out.println("****************** TERMINATED
******************");
                                System.out.println("****************** THANK YOU
******************");
                                flag=false;
                                break;
                        }



                case 2 :
                        System.out.println("----------------- Subtraction ------------
----");
                        diffClass objd = new diffClass();
                        System.out.println("Enter two numbers:");
                        x1=sc.nextInt();
                        x2=sc.nextInt();
                        int diffRes = objd.diff(x1,x2);
                        System.out.println("Difference: "+diffRes+"\n\n");
                        System.out.println("----------------------------------------
---------\n\n");
                        System.out.println("Do you want to try again? \n Enter 1 for
Yes and 0 for No");
                        c=sc.nextInt();
                        if(c==1) {
                                flag=true;
                                break;
                        }
                        else {
                                System.out.println("****************** TERMINATED
******************");
                                System.out.println("****************** THANK YOU
******************");
                                flag=false;
                                break;
                        }



                case 3 :
                        System.out.println("----------------- MULTIPLICATION ---------
-------");
                        productClass objm = new productClass();
                 System.out.println("Enter two numbers: ");
                x1=sc.nextInt();
                x2=sc.nextInt();
                int mulRes = objm.pro(x1,x2);
                System.out.println("Product: "+mulRes+"\n\n");
                System.out.println("------------------------------------------------
--\n\n");
                        System.out.println("Do you want to try again? \n Enter 1 for
Yes and 0 for No");
                        c=sc.nextInt();
                        if(c==1) {
```

```
                                flag=true;
                                break;
                        }
                        else {
                                System.out.println("****************** TERMINATED
******************");
                                System.out.println("****************** THANK YOU
******************");
                                flag=false;
                                break;
                        }



                case 4 :
                        System.out.println("----------------- DIVISION ---------------
-");
                        divClass objdiv = new divClass();
                        System.out.println("Enter two numbers: ");
                        x1=sc.nextInt();
                        x2=sc.nextInt();
                        System.out.println("Enter 1 to obatin Quotient and 2 to obtain
Remainder");
                        int i=sc.nextInt();

                        try{
                                if(i==1) {
                                        int divRes=objdiv.div(x1, x2);
                                        System.out.println("Quotient: "+divRes+"\n\n");

                                }
                                else if(i==2){
                                        int divRes=objdiv.remainder(x1, x2);
                                        System.out.println("Remainder:
"+divRes+"\n\n");
                                }
                                else {
                                        System.out.println("Wrong choice selected!!!");
                                        System.out.println("Try again.\n\n");
                                        flag=true;
                                        break;
                                }
                        }
                        catch(java.lang.ArithmeticException e) {
                                System.out.println("Cannot divide by zero!!!");
                        }
                        finally {
                                System.out.println("---------------------------------
----------------\n\n");
                                System.out.println("Do you want to try again? \n Enter
1 for Yes and 0 for No");
                                c=sc.nextInt();
                                if(c==1) {
                                        flag=true;
                                        break;
                                }
                                else {
                                        System.out.println("******************
TERMINATED ******************");
                                        System.out.println("****************** THANK
YOU ******************");
                                        flag=false;
                                        break;
                                }
                        }
```

```
                    case 5 :
                           System.out.println("****************** TERMINATED
******************");
                           System.out.println("******************* THANK YOU
******************");
                           flag=false;
                           break;

                    default :
                           System.out.println("Wrong choice selected!!!");
                           System.out.println("Try again.");
                           System.out.println("Do you want to try again? \n Enter 1 for
Yes and 0 for No");
                           c=sc.nextInt();
                           if(c==1) {
                                  flag=true;
                                  break;
                           }
                           else {
                                  System.out.println("****************** TERMINATED
******************");
                                  System.out.println("******************* THANK YOU
******************");
                                  flag=false;
                                  break;
                           }

                    }
             }


             while(flag==true);

      }
}
```

Class sumClass :

```
package package1;

public class sumClass {

       public int sum(int a, int b){
        return (a+b);
    }

    // Overloaded sum(). This takes three int parameters
    public int sum(int a, int b, int c){
       return (a+b+c);
    }

}
```

Class diffClass :

```
package package1;

public class diffClass {

	public int diff(int a, int b){
	 return (a-b);
    }

}
```

Class productClass :

```
package package1;

public class productClass {

	public static int pro(int a, int b){
		return (a*b);
	}

}
```

Class divClass :

```
package package1;

public class divClass {
	public int div(int a, int b){
	 return (a/b);
    }

    public int remainder(int a, int b){
	 return (a%b);
    }

}
```