SQA class 3 & 4

Assignee	
Status	Done
Summary	The document contains Java code for basic arithmetic operations and input/output using the Scanner and BufferedReader classes. The code includes examples of adding, subtracting, multiplying, and dividing two numbers, as well as taking user input and concatenating it with a result. The document also includes homework assignments for practicing these concepts.
Due	
Project	
Sub-tasks	SQA
Parent-task	
Priority	
Tags	

09/06/2023

- “function return value” call in the main function.

```
public class Main {

    int x = 4;
    float y = 5.23f;
    float z = 10.74f;
    public void value () {

        System.out.println(" value of x: " + x);
        System.out.println(" value of y: " + y);
        System.out.println(" value of z: " + z);
    }
    public void sum () {

        float summation = x + y + z;
        System.out.println(" value of summation is: " + summation);
    }
    public void sub () {

        float subtract =  z -x - y;
        System.out.println(" value of subtraction is: " + subtract);
    }
    public void mul () {

        float multiplication = x * y * z;
        System.out.println(" value of multiplication is: " + multiplication);
    }
    public void div () {

        float division = z / y / x ;
        System.out.println(" value of division is: " + division);
    }

    public float jekonokisu () {

        float division = z / y / x ;
```

```
       return division ;
    }

    public void function () {

        value();
        sum();
        sub();
        mul();
       div();



    }

    public static void main(String[] args) {

        Main anything = new Main();
        /*
        anything.value();
        anything.sum();
        anything.sub();
        anything.mul();
        anything.div();
        */
        float h = anything.jekonokisu();
        System.out.println("value of h : " + h); // ekhne h er value print hbe and eta akta functon er moddhe call kore hoyeche

        anything.function();


    }
}
```

parametrial concept:

```
public class Main {
public void test(int rest){
        System.out.println(rest);
    }
public static void main(String[] args) {

        Main anything = new Main();
        anything.test(rest: 500);
}
}
```

parametrial string:

```
public void test4(String g, String h){
        System.out.println(g+ " " + h);
    }

public static void main(String[] args) {
        anything.test4("anik" ,"hasan" );
    }
```

parameter add and sub:

```
public class Main {
public int test(int rest, int y){
    int sum = rest + y;
  //  System.out.println(rest);
    return sum;
}

    public int test2(int rest, int y) {
        int sub = rest - y;
        //  System.out.println(rest);
        return sub;
```

```
    }
    public void sub () {



    }
    public static void main(String[] args) {
       Main t = new Main();
      int k =  t.test(10,5);

        int l = t.test2(7,5);

        System.out.println(k+" \n "+l );
    }
}
```

▼ constructor:

```
public class Main {
int x;
public Main() {
    x = 5;

}

    public static void main(String[] args) {
       Main t = new Main();
        System.out.println(t.x);
    }
}
```

```
public class constractor {
    public constractor(){
        System.out.println("car will start when object is being called");

    }

    public static void main(String[] args) {
        constractor c = new constractor();

    }
}
```

function call na korleo sathe sathei call hoye jbe…

out put :

car will start when object is being called

HW…

make a constructor which will return sub, sum, div , mul

10/06/2023

HW codes for making a constructor which will run sum, sub, mul, div at a time:

```
public class Main {

    int x = 4;
    float y = 5.23f;
    float z = 10.74f;
```

```
    public Main () {
        System.out.println(" value of x: " + x);
        System.out.println(" value of y: " + y);
        System.out.println(" value of z: " + z);
        float summation = x + y + z;
        System.out.println(" value of summation is: " + summation);
        float subtract =  z -x - y;
        System.out.println(" value of subtraction is: " + subtract);
        float multiplication = x * y * z;
        System.out.println(" value of multiplication is: " + multiplication);
        float division = z / y / x ;
        System.out.println(" value of division is: " + division);
    }

    public static void main(String[] args) {

        Main anything = new Main();

    }
}
```

when input pore nya jay:

```
public class Main {

    public Main (int x, int y, int z) {
        System.out.println(" value of x: " + x);
        System.out.println(" value of y: " + y);
        System.out.println(" value of z: " + z);
        float summation = x + y + z;
        System.out.println(" value of summation is: " + summation);
        float subtract =  z -x - y;
        System.out.println(" value of subtraction is: " + subtract);
        float multiplication = x * y * z;
        System.out.println(" value of multiplication is: " + multiplication);
        float division = z / y / x ;
        System.out.println(" value of division is: " + division);
    }

    public static void main(String[] args) {

        Main anything = new Main(5 , 7, 8);

    }
}
```

system.in : system theke input neyar jnno neya hy…

when input should take from user after run the code:

```
package classwork4;

import java.util.Scanner;

public class classwork4 {

    public void add(int x, int y){
        int sum = x+y;
        System.out.println("the sum is :" +sum);
    }
    public void sub(int x, int y){
        int sum = x-y;
        System.out.println("the subtraction is :" +sum);
    }
    public void mul(int x, int y){
        int sum = x*y;
        System.out.println("the multiplication is :" +sum);
    }
    public void div(int x, int y){
```

```
        float sum = x/y; //float sum = (float)x/y;
        System.out.println("the division :" +sum);
    }

    public static void main(String[] args) {

        classwork4 c = new classwork4();
       // System.out.println("please input  a num");

        Scanner sc = new Scanner(System.in);
        System.out.println("please input  a num:");
        int f = sc.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num:");
        int h = sc.nextInt();
        //System.out.println("your input another num is: " +h);

        c.add(f,h);
        c.sub(f,h);
        c.mul(f,h);
        c.div(f,h);
    }
}
```

▼ 1st add 2 values then div 1 value:

```
package classwork5;
import java.util.Scanner;
public class classwork5 {

    public int add(int x, int y){
        int sum = x+y;
        System.out.println("the sum is :" +sum);
        return(sum);
    }

    public void div(int x, int y){
        double div = (double) x/y;
        System.out.println("the division :" +div);
    }

    public static void main(String[] args) {
        classwork5 c = new classwork5();
        // System.out.println("please input  a num");

        Scanner sc = new Scanner(System.in);
        System.out.println("please input  a num:");
        int f = sc.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num:");
        int h = sc.nextInt();
        //System.out.println("your input another num is: " +h);
         int k = c.add(f, h);


        System.out.println("please input another  a num by which should be divided:");
        int w = sc.nextInt();
        c.div(k,w);
    }
}
```

```
"C:\Program Files\Java\jdk1.8.0_181\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2023.1.2\lib\idea_
please input  a num:
22
please input another  a num:
7
the sum is :29
please input another  a num by which should be divided:
3
the division :9.666666666666666

Process finished with exit code 0
```

hw:

1. system theke input nibe 3 item

   1st 2 item = add korte hbe

   thn 3rd item ta string hbe and oi string + add ak sathe print hbe:

```
package homwork6;
import java.util.Scanner;
public class homwork6 {

    public int add(int x, int y){
        int sum = x+y;
        System.out.println("the sum is :" +sum);
        return(sum);
    }
/*
    public void test4(String g){
        //System.out.println(g+ " " + h);
        String s = g;
    }
*/
    public static void main(String[] args) {
        homwork6 c = new homwork6();
        // System.out.println("please input  a num");

        Scanner sc = new Scanner(System.in);
        System.out.println("please input  a num:");
        int f = sc.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num:");
        int h = sc.nextInt();
        //System.out.println("your input another num is: " +h);
        int k = c.add(f, h);


        System.out.println("please input any string value:");
        String w = sc.next();

        System.out.println( w + " " + k);
    }
}
```

2. function 4 ta hbe sub , sum mul div

   8ta input hbe.

   and finally 4type function gulo jog hbe..

```
package homework2;
import java.util.Scanner;
public class homework2 {

    public int add(int x, int y){
        int sum = x+y;
        System.out.println("the sum is :" +sum);
        return(sum);
    }

    public int sub(int x, int y){
        int sum = x-y;
        System.out.println("the sum is :" +sum);
        return(sum);
    }
    public float div(int x, int y){
        float sum = (float)x/y;
        System.out.println("the sum is :" +sum);
        return sum;
    }
    public int mul(int x, int y){
```

```
        int sum = x*y;
        System.out.println("the sum is :" +sum);
        return sum;
    }
public void addd(float x, float y, float z, float w){
float sum= (x+y+z+w);
    System.out.println("the total sumation: " +sum);

}
    public static void main(String[] args) {
        homework2 c = new homework2();
        // System.out.println("please input  a num");

        Scanner sc = new Scanner(System.in);
        System.out.println("please input  a num for add:");
        int f = sc.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num for add:");
        int h = sc.nextInt();
        //System.out.println("your input another num is: " +h);
        int k = c.add(f, h);


        System.out.println("please input  a num for sub:");
        int z = sc.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num for sub:");
        int v = sc.nextInt();
        //System.out.println("your input another num is: " +h);
        int g = c.sub(z, v);


        System.out.println("please input  a num for mul:");
        int n = sc.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num for mul:");
        int m = sc.nextInt();
        //System.out.println("your input another num is: " +h);
        int l = c.mul(n, m);


        System.out.println("please input  a num for div:");
        int p = sc.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num for div:");
        int q = sc.nextInt();
        //System.out.println("your input another num is: " +h);
        float e = c.div(p,q);

        c.addd(k, g, l, e);


    }
}
```

<u>note:</u> ekhne kabol 1ta word e likha jabe string e. but jodi 2ta alada string nya hoy tahole tahole 2ta word nya jbe.

```
package homwork6;
import java.io.IOException;
import java.util.Scanner;
import java.io.BufferedReader;
import java.io.InputStreamReader;
public class homwork6 {

       // private static Scanner scanner;

    public int add(int x, int y){
        int sum = x+y;
        System.out.println("the sum is :" +sum);
        return(sum);
```

```
    }

    public static void main(String[] args) throws IOException {
        homwork6 c = new homwork6();
        // System.out.println("please input  a num");

        Scanner scanner = new Scanner(System.in);
        System.out.println("please input  a num:");
        int f = scanner.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num:");
        int h = scanner.nextInt();
        //System.out.println("your input another num is: " +h);
        int k = c.add(f, h);

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter a line of text: ");
        String line = sc.nextLine();

        System.out.println( line+" "+k);
    }
}
```

You cannot input a line in your code because you are using the `Scanner` class to read input. The `Scanner` class is designed to read tokens, which are individual words or numbers. A line of text is not a token, so the `Scanner` class will not be able to read it.

To input a line of text, you need to use the `BufferedReader` class. The `BufferedReader` class is designed to read lines of text. The following code shows how to use the `BufferedReader` class to read a line of text:

```
package homwork6;
//import java.io.BufferedReader;
//import java.io.InputStreamReader;
import java.io.IOException;
import java.util.Scanner;
import java.io.BufferedReader;
import java.io.InputStreamReader;
public class homwork6 {

   // private static Scanner scanner;

    public int add(int x, int y){
        int sum = x+y;
        System.out.println("the sum is :" +sum);
        return(sum);
    }
/*
    public void test4(String g){
        //System.out.println(g+ " " + h);
        String s = g;
    }
*/
    public static void main(String[] args) throws IOException {
        homwork6 c = new homwork6();
        // System.out.println("please input  a num");

        Scanner scanner = new Scanner(System.in);
       // BufferedReader bufferedReader = new BufferedReader(new InputStreamReader(System.in));
        System.out.println("please input  a num:");
        int f = scanner.nextInt();
        //System.out.println("your input num is: " +f);

        System.out.println("please input another  a num:");
        int h = scanner.nextInt();
        //System.out.println("your input another num is: " +h);
        int k = c.add(f, h);

        BufferedReader bufferedReader = new BufferedReader(new InputStreamReader(System.in));

        System.out.println("Enter a line of text: ");
        String line = bufferedReader.readLine();

      /*  Scanner sc = new Scanner(System.in);
        System.out.println("Enter a line of text: ");
        String line = sc.nextLine();*/
```

```
        System.out.println( line+" "+k);
    }
}
```