

# **Bangladesh Open University**

#### **School of Science and Technology**

#### Bsc in Computer Science and Engineering

Lab report no. : Assignment-01.

Report on : Stack

Course title : Data Structure Lab

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## Implement Calculator Using java

```
import java.util.*;
import java.util.ArrayList;
class calculator_main{
    static void add()
        Scanner input = new Scanner(System.in);
        System.out.print("\n====Addition Sectior======\n");
        System.out.print("[+] input How many intiger you want sum ===>");
        int data = input.nextInt();
        //ArrayList<Integer> dataList = new ArrayList<Integer>();
       // List<Integer> dataList = Arrays.asList(data);
        //int sum = MathUtils.sum(dataList);
      int[] array = new int[100];
      int sum = 0;
      for (int i=0; i<data; i++)</pre>
      {
          String formate = String.format("[-] Enter the Element[%x] ==>",i);
          System.out.print(formate);
          array[i] = input.nextInt();
      for( int num : array) {
          sum = sum + num;
      System.out.println("[+] Sum of array elements is:===>"+sum);
    }
     static void sub()
      int c = 0;
      while(c<100)</pre>
      {
        Scanner input = new Scanner(System.in);
        System.out.print("\n====Subtract Sectior======\n");
        System.out.print("[+] Input 1st number ===>");
        int data = input.nextInt();
        System.out.print("[+] input 2nd number===>");
        int data2 = input.nextInt();
        int result = data-data2;
```

```
System.out.print("\n\t[+] Sum Result is ==>"+result);
        System.out.print("\n[-
Do you want more Operation(for Yes press 1)===> ");
        int yes_no = input.nextInt();
        if (yes no==1)
        {
            calculator_main m = new calculator_main();
            m.sub();
        }
        else{
            break;
        }
    }
    }
   static void multiple()
    {
        int c = 0;
      while(c<100)</pre>
      {
        Scanner input = new Scanner(System.in);
        System.out.print("\n=====multiplication Sectior======\n");
        System.out.print("[+] Input 1st number ===>");
        int data = input.nextInt();
        System.out.print("[+] input 2nd number===>");
        int data2 = input.nextInt();
        int result = data*data2;
        System.out.print("\n\t[+] Sum Result is ==>"+result);
        System.out.print("\n[-
]Do you want more Operation(for Yes press 1)===> ");
        int yes_no = input.nextInt();
        if (yes_no==1)
        {
            calculator_main m = new calculator_main();
            m.sub();
        }
        else{
            break;
        }
    }
}
static void division()
{
```

```
int c = 0;
      while(c<100)
        Scanner input = new Scanner(System.in);
        System.out.print("\n=====Division Sectior=======\n");
        System.out.print("[+] Input 1st number ===>");
        int data = input.nextInt();
        System.out.print("[+] input 2nd number===>");
        float data2 = input.nextInt();
        float result = data/data2;
        System.out.print("\n\t[+] Sum Result is ==>"+result);
        System.out.print("\n[-
]Do you want more Operation(for Yes press 1)===> ");
        int yes_no = input.nextInt();
        if (yes no==1)
        {
            calculator_main m = new calculator_main();
            m.sub();
        }
        else{
            break;
        }
    }
}
static void trigono()
{
     int c = 0;
     while(c<100)</pre>
         Scanner input = new Scanner(System.in);
         System.out.print("\n======Trigonomiti Sector=======\n");
         System.out.print("[+] input one number for See all Trigonomiti Value
There===>");
         float data = input.nextFloat();
         System.out.println("======");
         String sign = String.format("[-
Sign value for your (%f) number is==> %2f",data,Math.sin(data));
         String cos = String.format("[-
[] Cos value for your (%f) number is==>%2f",data, Math.cos(data));
         String tan = String.format("[-
Tan vlaue for your (%f) number is==>%f",data,Math.tan(data));
         System.out.println(sign);
         System.out.println(cos);
         System.out.println(tan);
         if (yes_no==1)
        {
```

```
calculator_main m = new calculator_main();
           m.trigono();
        }
       else{
           break;
        }
     }
}
public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        int i = 0;
       while(i<554)</pre>
        {
        System.out.println("\n=====calculator======");
        System.out.println("1) input one for Addition ");
        System.out.println("2) input tow For subtract ");
        System.out.println("3) input three for Multiplication");
        System.out.println("4) input four for division");
        System.out.println("5) input five for Go Trigono Martic Sector");
        System.out.println("=======");
        System.out.print("[+] input your Chose===>");
         int chooise = input.nextInt();
        if (chooise ==1)
        {
           try {add();}
           catch(Exception e)
            {
                System.out.print("\n[+] Some this Went Wrong in Adding ... Try
Again\n");
               System.out.print(e);
           }
        else if (chooise==2)
           try{sub();}
           catch(Exception e)
                System.out.print("\n[+] Some this Went Wrong in subtracting ..
. Try Again\n");
           }
        else if (chooise == 3)
           try{multiple();}
```

```
catch(Exception e)
                System.out.print("\n[+] Some this Went Wrong in Multiplication
 ... Try Again\n");
            }
         }
         else if (chooise ==4)
            try{division();}
            catch(Exception e)
                System.out.print("\n[+] Some this Went Wrong in Division ... T
ry Again\n");
         else if(chooise==5)
             try{trigono();}
             catch(Exception e)
             {
                System.out.print("\n[+] Some this Went Wrong in Division ... T
ry Again\n");
         }
    }
    }
}
```