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Bsc in Computer Science and Engineering

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Report on : Stack

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Submitted By :

Student's name :MD Rafsan Jani.

Student's ID : 18-0-52-020-023.

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Submitted To :

Mr Md. Mahbub Hasan

Assistant Professor,

Department of Computer Science and Engineering

DUET

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Study Center : Dhaka University of Engineering and Technology, Gazipur

Implement Calculator Using java

```
import java.util.*;
import java.util.ArrayList;


class calculator_main{
    public static ArrayList history = new ArrayList();
    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++)
      {
          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);
      history.add("[+]Ans From Addition==> "+sum);

    }

     static void  sub()
    {
      int c = 0;
      while(c<100)
      {
        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);
        history.add("[+]Ans From  Subtract ==>"+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)
      {
        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);
        history.add("[+]Ans From Multiple==>"+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);
        history.add("[+]Ans From Division"+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)
     {
         Scanner input = new Scanner(System.in);
         System.out.print("\n==========Trigonomiti Sector========\n");
         System.out.println("1) Press one for Sign Value for your input ");
         System.out.println("2) Press two for Cos value for your input  ");
         System.out.println("3) Press Three for Tan Value for your input");
         System.out.println("4) Press Four for Squroot For  yout input ");
         System.out.println("5) Press Five for Pi value for your input");
         System.out.println("6) Press SIX for Root Over for your input");
         System.out.println("=======================================");
         System.out.print("[+] input your Choose===>");
         int chooise = input.nextInt();
         if (chooise==1)
         {
             System.out.println("================================");
```

```
            System.out.print("\n[+] Input your Value for Sine=====>");
            float sign = input.nextFloat();
            String sing_format = String.format("\n\t[+] This %2f Sign value i
s ===>%2f\n",sign,Math.sin(sign));
            System.out.print(sing_format);
            history.add("[+] Ans from Trigonomiti Sign "+sing_format);
        }
        else if(chooise==2)
        {
           System.out.println("================================");
           System.out.print("\n[+] Input your Value for Cose=====>");
           float cos = input.nextFloat();
           String cos_format = String.format("\n\t[+] This %2f Cos value is =
==>%2f\n",cos,Math.cos(cos));
           System.out.print(cos_format);
           history.add("[+] Ans from Trigonomiti cos"+cos_format);

        }
        else if (chooise==3)
        {
           System.out.println("================================");
           System.out.print("\n[+] Input your Value for Tan=====>");
           float tan = input.nextFloat();
           String tan_format = String.format("\n\t[+] This %2f Tan value is =
==>%2f\n",tan,Math.sin(tan));
           System.out.print(tan_format);
           history.add("[+]  Ans from Trigonomiti  Tan"+tan_format);

        }
        else if (chooise==4)
        {
           System.out.println("================================");
           System.out.print("\n[+] Input your Value for Sqroot=====>");
           double  sqroot = input.nextDouble();
           String sqroot_format = String.format("\n\t[+] This %2f Sign value
is ===>%2f\n",sqroot,Math.sqrt(sqroot));
           System.out.print(sqroot_format);
           history.add("[+]  Ans from Trigonomiti sqroot "+sqroot_format);

        }
        else if (chooise==5)
        {
           System.out.println("================================");
           System.out.print("\n[+] Input your Value for multiplay with PI ===
==>");
           float pi = input.nextFloat();
           String pi_format = String.format("\n\t[+] This %2f Sign value is =
==>%2f\n",pi,(Math.PI*pi));
```

```
            System.out.print(pi_format);
            history.add("[+]  Ans from Trigonomiti pi "+pi_format);

         }
         else if (chooise==6)
         {
            System.out.println("================================");
            System.out.print("\n[+] Input your Value=====>");
            double data = input.nextDouble();
            System.out.print("\n[+] input Pow value===>");
            double pow = input.nextDouble();
            String pow_format = String.format("\n\t[+] This %2f Sign value is
===>%2f\n",data,Math.pow(data, pow));
            System.out.print(pow_format);
            history.add("[+]  Ans from Trigonomiti pow "+pow_format);
         }

         System.out.print("[!] Do you Want continue This Trigonomiti Sector (P
ress 1 for Yes / No For 2)==>");
         int yes_no = input.nextInt();
         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)
        {
         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("6) Press 6 For see history");
         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");
               System.out.print(e);
           }
        }
        else if (chooise == 3)
        {
           try{multiple();}
           catch(Exception e)
           {
               System.out.print("\n[+] Some this Went Wrong in Multiplication
 ... Try Again\n");
                System.out.print(e);
           }
        }
        else if (chooise ==4)
        {
           try{division();}
           catch(Exception e)
           {
               System.out.print("\n[+] Some this Went Wrong in Division ... T
ry Again\n");
               System.out.print(e);
           }
        }
        else if(chooise==5)
        {
            try{trigono();}
            catch(Exception e)
            {
               System.out.print("\n[+] Some this Went Wrong in Division ... T
ry Again\n");
               System.out.print(e);
```

```
            }
        }

        else if(chooise==6)
        {
            try{
                System.out.println("\n=========Printing History=========\n");
                for (int j=0 ; j<=history.size(); j++)
                {
                    System.out.println(history.get(i));
                }

            }
            catch(Exception e)
            {
                System.out.print("\n[!!] some Think Wrong for \n"+e);
            }
        }

    }


    }
}
```