

## LAB EXAM

### Concepts of Programming & Operating System

Write a program that creates and initializes a "N" element integer array. Calculate and display the average of its values.

```
package com.lab0s;

import java.util.Scanner;

public class ArrayLab {
    public static void main(String args[]) {
        int count, sum = 0, i;
        int[] inputArray = new int[500];

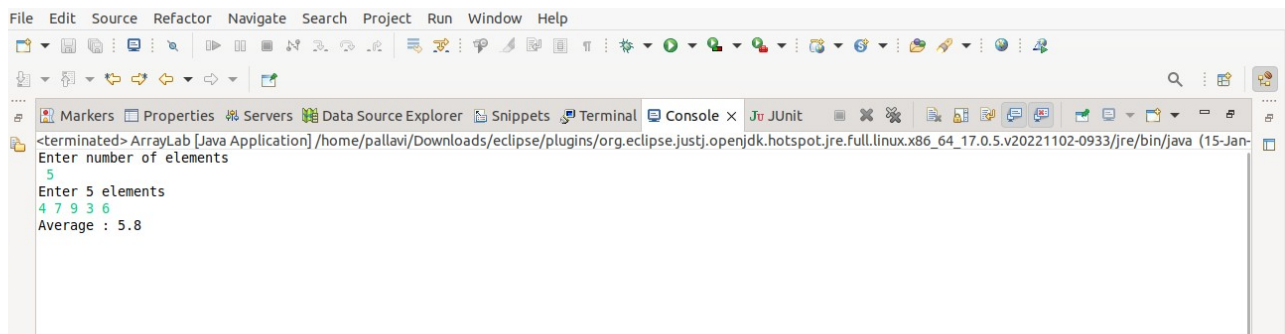
        Scanner in = new Scanner(System.in);

        System.out.println("Enter number of
elements");
        count = in.nextInt();
        System.out.println("Enter " + count + "
elements");

        for(i = 0; i < count; i++) {
            inputArray[i] = in.nextInt();
            sum = sum + inputArray[i];
        }

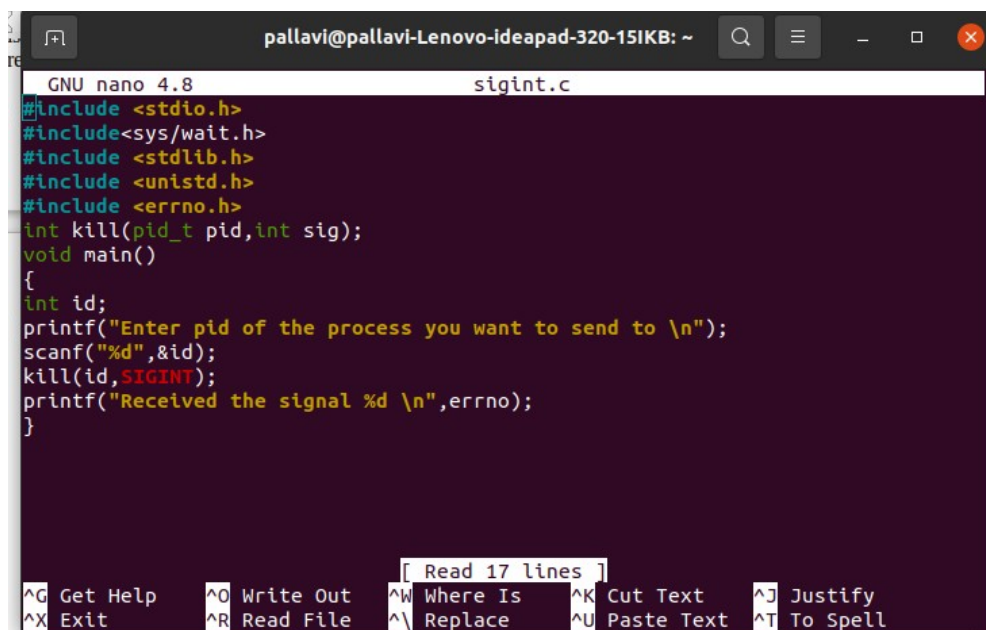
        System.out.println("Average : " +
(double)sum/count);
    }
}
```

## Output:



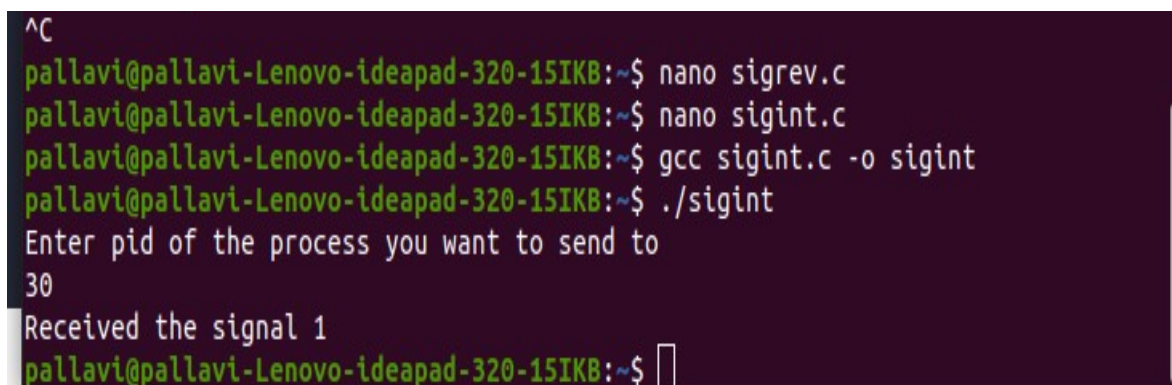
```
File Edit Source Refactor Navigate Search Project Run Window Help
<terminated> ArrayLab [Java Application] /home/pallavi/Downloads/eclipse/plugins/org.eclipse.justj.openjdk.hotspot.jre.full.linux.x86_64_17.0.5.v20221102-0933/jre/bin/java (15-Jan-
Enter number of elements
5
Enter 5 elements
4 7 9 3 6
Average : 5.8
```

2. Write a C Program which receives a SIGINT Signal and when received SIGINT prints "received the signal", and sets to the default behavior, so that second time if a SIGINT is received to the program, it will terminate.



```
pallavi@pallavi-Lenovo-ideapad-320-15IKB: ~
GNU nano 4.8 sigint.c
#include <stdio.h>
#include<sys/wait.h>
#include <stdlib.h>
#include <unistd.h>
#include <errno.h>
int kill(pid_t pid,int sig);
void main()
{
    int id;
    printf("Enter pid of the process you want to send to \n");
    scanf("%d",&id);
    kill(id,SIGINT);
    printf("Received the signal %d \n",errno);
}

[ Read 17 lines ]
^G Get Help  ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify
^X Exit      ^R Read File  ^\ Replace    ^U Paste Text ^T To Spell
```



```
^C
pallavi@pallavi-Lenovo-ideapad-320-15IKB:~$ nano sigrev.c
pallavi@pallavi-Lenovo-ideapad-320-15IKB:~$ nano sigint.c
pallavi@pallavi-Lenovo-ideapad-320-15IKB:~$ gcc sigint.c -o sigint
pallavi@pallavi-Lenovo-ideapad-320-15IKB:~$ ./sigint
Enter pid of the process you want to send to
30
Received the signal 1
pallavi@pallavi-Lenovo-ideapad-320-15IKB:~$
```

**Submitted By:**

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