

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

```
package exampkg;
import java.util.Scanner;

public class Exam {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter the number of elements in
the array: ");
        int n = sc.nextInt();

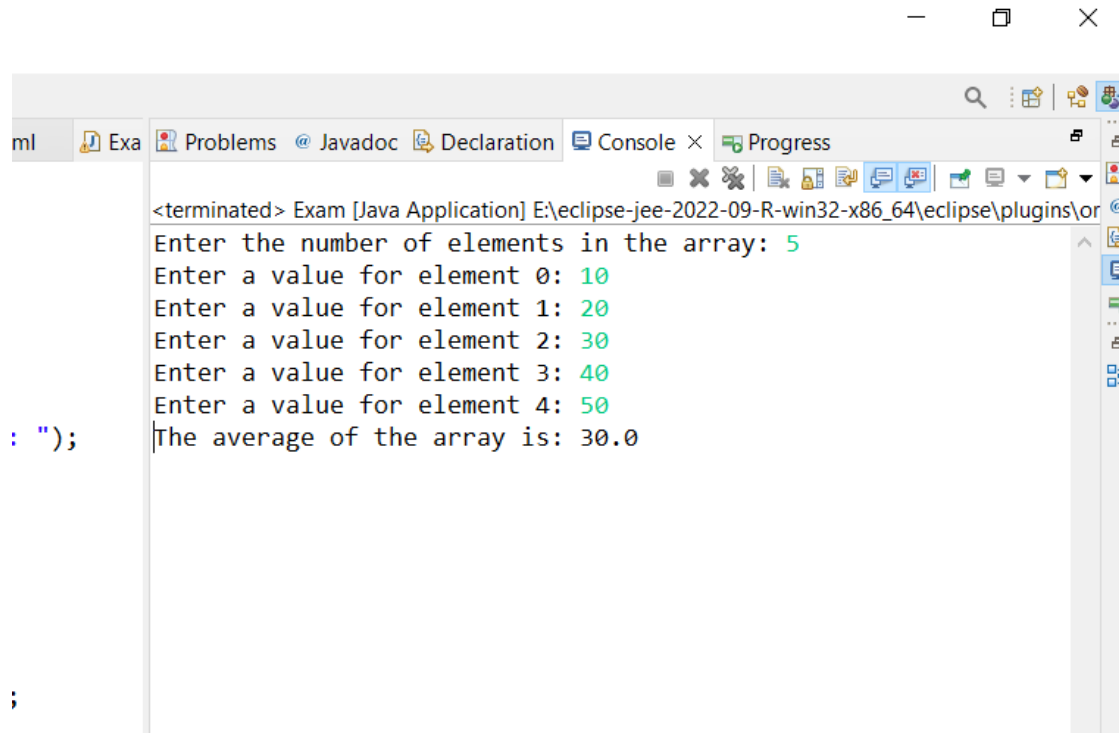
        int[] arr = new int[n];

        for (int i = 0; i < n; i++) {
            System.out.print("Enter a value for element " +
i + ": ");
            arr[i] = sc.nextInt();
        }

        double average = 0;
        for (int i = 0; i < n; i++) {
            average += arr[i];
        }
        average /= n;

        System.out.println("The average of the array is: "
+ average);
    }
}
```

OUTPUT:



```
<terminated> Exam [Java Application] E:\eclipse-jee-2022-09-R-win32-x86_64\eclipse\plugins\or
Enter the number of elements in the array: 5
Enter a value for element 0: 10
Enter a value for element 1: 20
Enter a value for element 2: 30
Enter a value for element 3: 40
Enter a value for element 4: 50
The average of the array is: 30.0
```

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.

```
kali@kali: ~  
File Actions Edit View Help  
GNU nano 6.4 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 receive signal from \n");  
    scanf("%d", &id);  
    kill(id, SIGINT);  
    printf("Received the signal");  
}
```

```
(kali@kali)-[~]  
$ nano sigint.c  
  
(kali@kali)-[~]  
$ gcc sigint.c -o sigint  
  
(kali@kali)-[~]  
$ ./sigint  
Enter pid of the process you want to receive signal from  
7557  
Received the signal
```