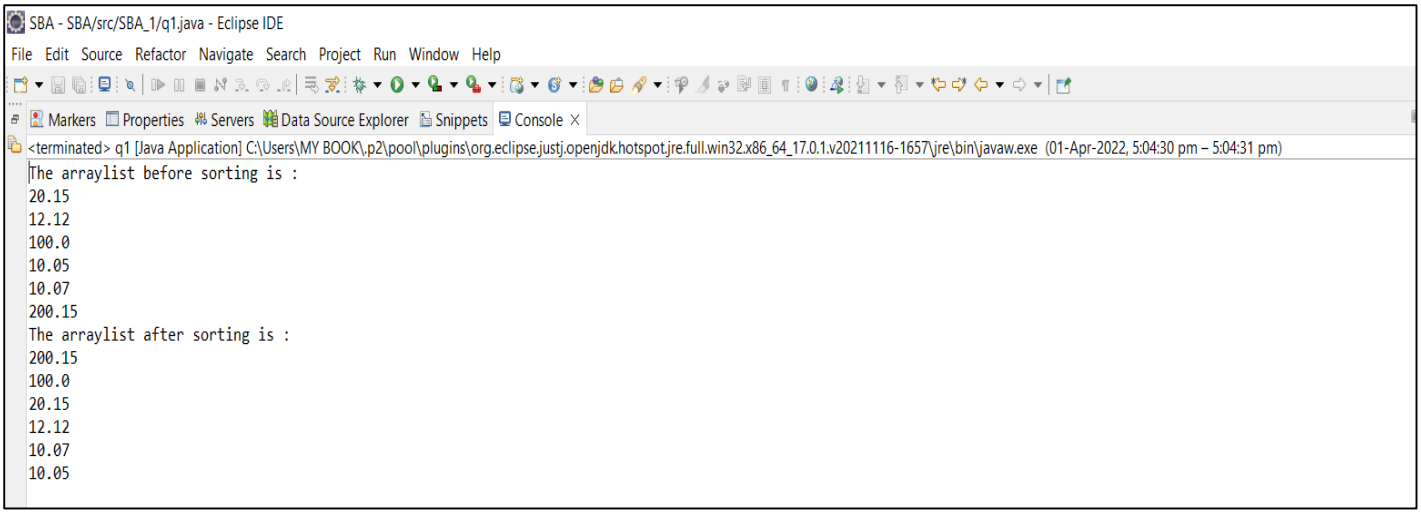
1.Write a program to create a arraylist of double element and add the elements. sort the elements in descending order and print it.

```
package SBA_1;
import java.util.ArrayList;
import java.util.Collections;

public class q1 {

public static void main(String[] args) {
ArrayList<Double> list=new ArrayList<Double>();
list.add(20.15);
list.add(12.12);
list.add(100.0);
list.add(10.05);
list.add(10.07);
list.add(200.15);
System.out.println("The arraylist before sorting is : ");
for(double newlist:list)
{
System.out.println(newlist);
}
Collections.sort(list, Collections.reverseOrder());
System.out.println("The arraylist after sorting is : ");
for(double newlist:list)
{
System.out.println(newlist);
}
}
}
```



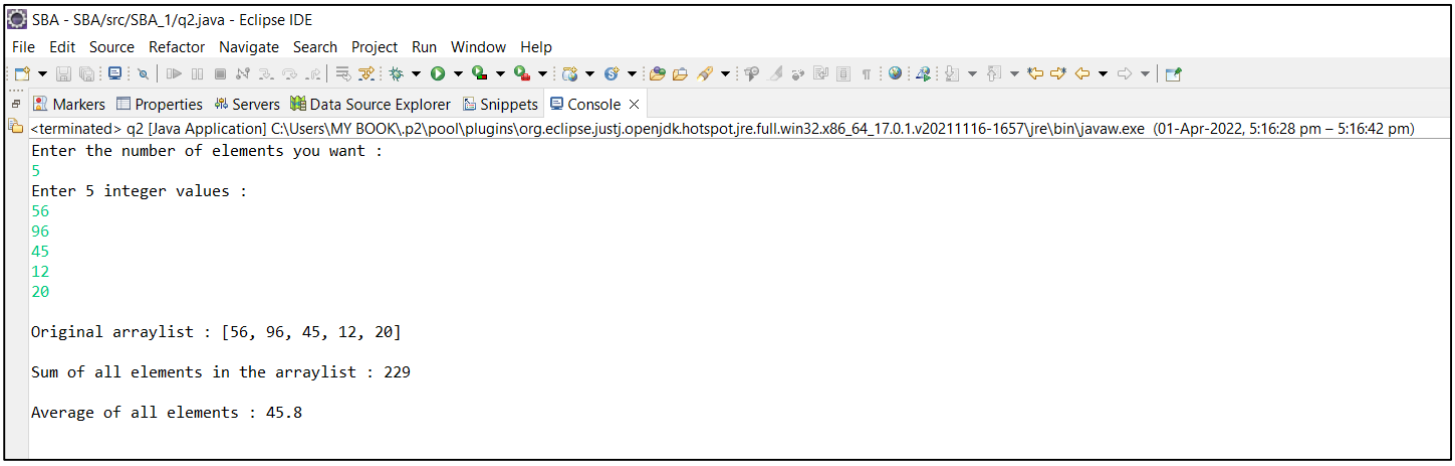
2.Create a arraylist of integers and find the sum and average of the entire list.

```
package SBA_1;
import java.util.ArrayList;
import java.util.Scanner;

public class q2 {

public static void main(String[] args)
{
Scanner sc = new Scanner(System.in);
System.out.println("Enter the number of elements you want :");
int n = sc.nextInt(), sum = 0;
double avg = 0;
System.out.println("Enter " + n + " integer values :");
ArrayList<Integer> list = new ArrayList<Integer>();
for (int i = 0; i < n; i++)
{
list.add(sc.nextInt());
}
System.out.println("\nOriginal arraylist : " + list);
// finding sum
for (int i : list)
{
sum += i;
}
System.out.println("\nSum of all elements in the arraylist : " + sum);
```

```
// finding average
avg = (double) sum / list.size();
System.out.println("\nAverage of all elements : " + avg);
}
}
```



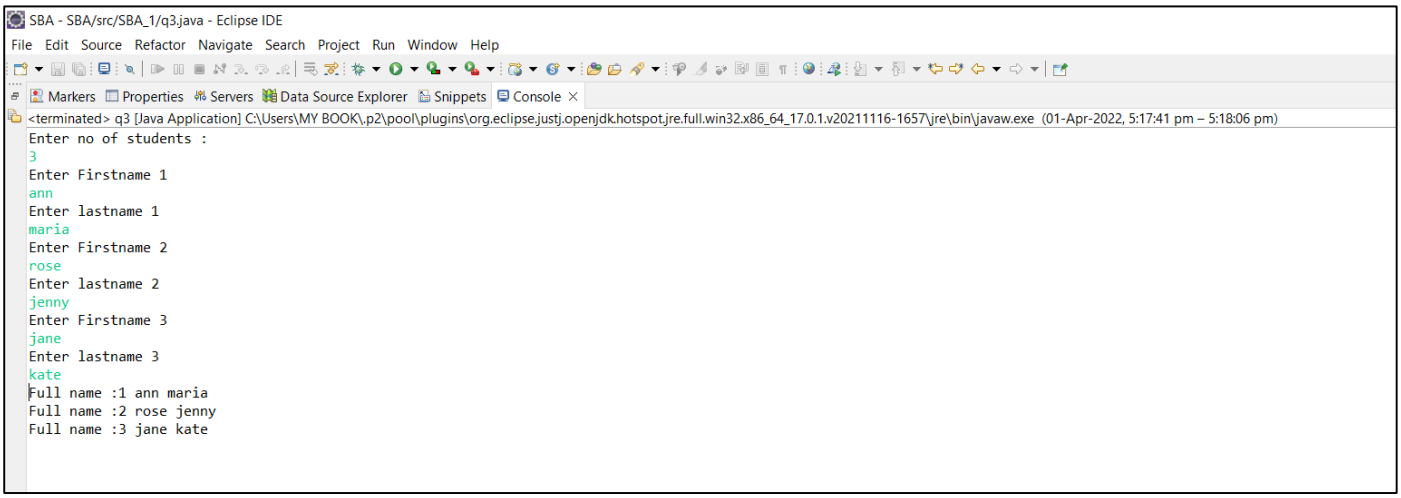
3.Create two arraylist of strings to take First_name and Last_name of the students,and print their whole name.

```
package SBA_1;

import java.util.ArrayList;
import java.util.Scanner;

public class q3 {
public static void main(String[] args) {
ArrayList <String> firstName = new ArrayList <String>();
ArrayList <String> lastName = new ArrayList <String>();
Scanner sc = new Scanner(System.in);
System.out.println("Enter no of students :");
int n= sc.nextInt();
for(int i=1;i<=n;i++)
{
System.out.println("Enter Firstname "+i);
firstName.add(sc.next());
System.out.println("Enter lastname "+i);
lastName.add(sc.next());
}
for(int i=0;i<n;i++)
{
```

```
System.out.println("Full name :"+(i+1)+" " +firstName.get(i)+" "+lastName.get(i));
}
}
}
```



4.Write a program to check for the occurrence of a particular character in a string and display how many times it has occurred.

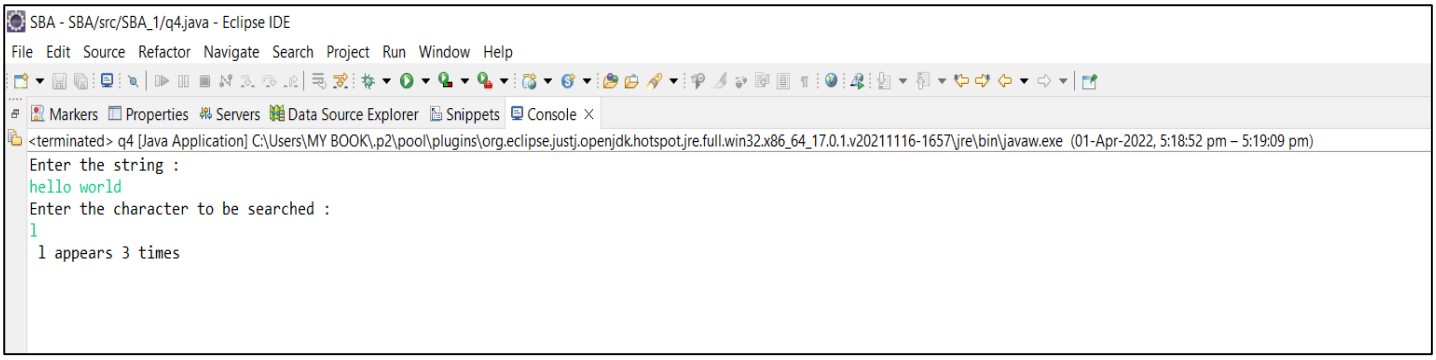
note: take the String and the character to be checked as a input from the user.

```
package SBA_1;

import java.util.Scanner;

public class q4 {
public static void main(String[] args) {
Scanner sc=new Scanner(System.in);
int count=0;
System.out.println("Enter the string : ");
String s1=sc.nextLine();
System.out.println("Enter the character to be searched :");
char c=sc.next().charAt(0);
for(int i=0;i<s1.length();i++)
{
if(s1.charAt(i)==c)
count++;
}
System.out.println(" "+c+" appears "+count+" times");
}

}
```



5.Write a program to take an input of a string with multiple words and convert it into a string array,and check if every element of that array is a Palindrome.

Note: Palindrome is a word which when reversed also is the same.

```
package SBA_1;

import java.util.Scanner;

public class q5 {
public static boolean check(String str)
{
int len=str.length();
for(int i=0;i<len/2;i++)
{
if(str.charAt(i)!=str.charAt((len-i-1)))
return false;
}
return true;
}

public static void main(String[] args) {
Scanner sc=new Scanner(System.in);
System.out.println("Enter a string with multiple words : ");
String str=sc.nextLine();
char[] ch = str.toCharArray();
int len = ch.length;
System.out.println("Character array elements are : ");
for (int i = 0; i < len; i++)
{
System.out.print(ch[i]+" ");
```

```
}
System.out.println("\n");
String[] arr=str.split(" ");
int n=arr.length;
for(int i=0;i<n;i++)
{
if(q5.check(arr[i]))
{
System.out.println(arr[i]+"  is a palindrome");
}
else
{
System.out.println(arr[i]+"  is not a palindrome");
}
}}}
```