(Day-13 afternoon session)
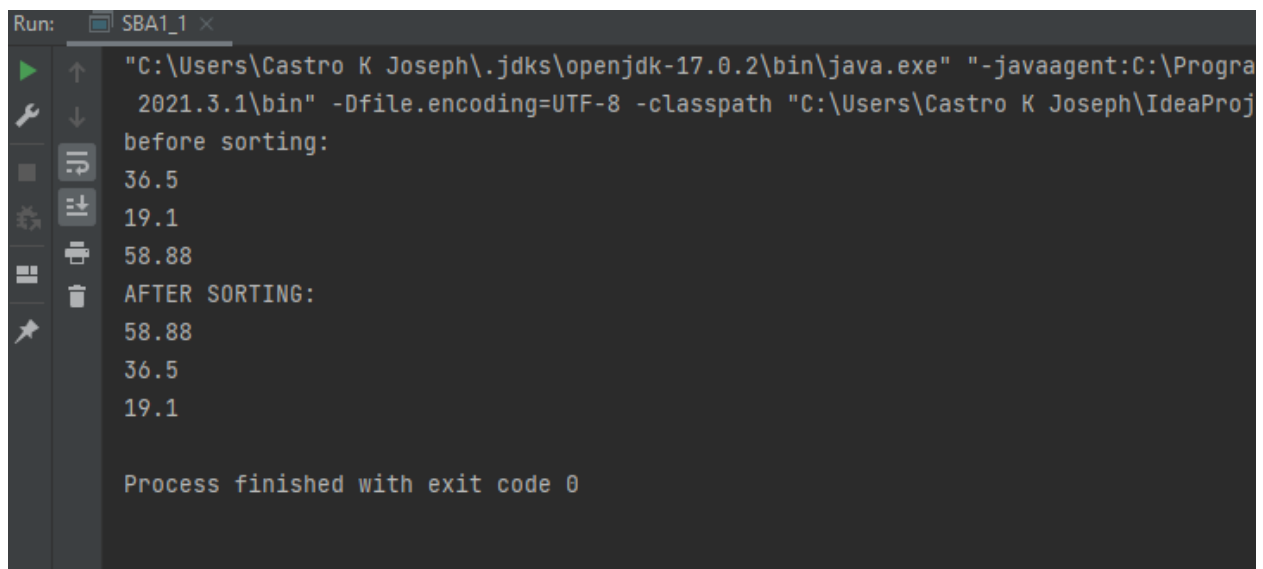1.Write a program to create a arraylist of double element and add the elements.
sort the elements in descending order and print it.
 //code

```java
import java.util.*;
import java.util.Collections;
public class SBA1_1 {
    public static void main(String[] args) {
        ArrayList<Double>list =new ArrayList<Double>();
        list.add(36.50);
        list.add(19.10);
        list.add(58.88);
        System.out.println("before sorting:");

        for(double newlist:list)
        {
            System.out.println(newlist);
        }
        Collections.sort(list,Collections.reverseOrder());
        System.out.println("AFTER SORTING:");
        for(double newlist:list)
        {
            System.out.println(newlist);
        }
    }

}
```

//output

```
Run:    SBA1_1 ×
    "C:\Users\Castro K Joseph\.jdks\openjdk-17.0.2\bin\java.exe" "-javaagent:C:\Progra
     2021.3.1\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\Castro K Joseph\IdeaProj
    before sorting:
    36.5
    19.1
    58.88
    AFTER SORTING:
    58.88
    36.5
    19.1

    Process finished with exit code 0
```

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

//code

```
import java.util.*;

public class SBA1_2 {

   public static void main(String[] args) {

       List < Integer > list = new ArrayList < Integer > ();

       list.add(10);
       list.add(90);
       list.add(30);
       list.add(40);
       list.add(70);
       list.add(100);
       list.add(60);

       System.out.println("Elements in List : " + list);
       Integer a[] = new Integer[list.size()];
       list.toArray(a);
       System.out.print("Elements in List : ");

       for (Integer obj : a) {
           System.out.print(obj + " ");
       }
       int sum = sumOfArray(a, a.length - 1);
       System.out.println();

       // Print the sum returned above
       System.out.println("Sum of elements  : " + sum);
       int avg;
       avg=sum/2;
       System.out.println("Average:"+ avg);
   }

   public static int sumOfArray(Integer[] a, int n) {
       if (n == 0)
           return a[n];
       else
           return a[n]+sumOfArray(a, n - 1);

   }


}
```

//output

```
"C:\Users\Castro K Joseph\.jdks\openjdk-17.0.2\bin\java.
 2021.3.1\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users
Elements in List : [10, 90, 30, 40, 70, 100, 60]
Elements in List : 10 90 30 40 70 100 60
Sum of elements  : 400
Average:200

Process finished with exit code 0
```

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

//code

```java
import java.util.*;
public class SBA1_3 {

    public static void main(String[] args) {

        List<String> firstName = new ArrayList<String>();
        List<String> lastName = new ArrayList<String>();
        String string1 = "CASTRO";
        firstName.add(string1);
        String string2 = "JOSEPH";
        firstName.add(string2);
        // /////inserting last name
        String string3 = "ROCKY";
        lastName.add(string3);
        String string4 = "ROBIN";
        lastName.add(string4);

        Iterator<String> iterator = firstName.iterator();
        Iterator<String> iterator1 = lastName.iterator();
        List<String> name = new ArrayList<String>();


        while (iterator.hasNext()&& iterator1.hasNext() )
        {

            name.add(iterator.next()+" "+iterator1.next());
        }

        Iterator<String> iterator11 = name.iterator();
        while(iterator11.hasNext())
            System.out.println(iterator11.next());
```
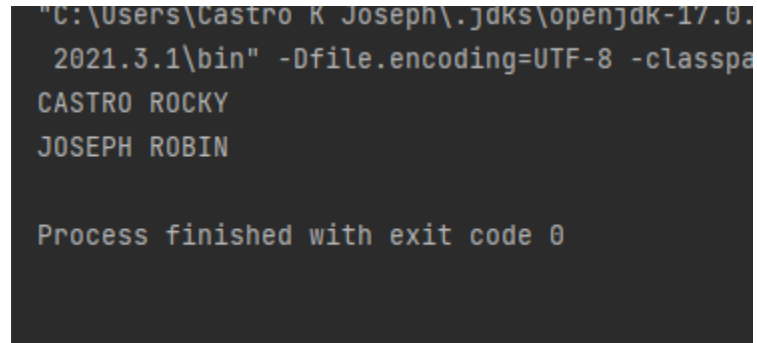
```
    }
}
```

//output

```
 "C:\Users\Castro K Joseph\.jdks\openjdk-17.0.
  2021.3.1\bin" -Dfile.encoding=UTF-8 -classpa
 CASTRO ROCKY
 JOSEPH ROBIN

 Process finished with exit code 0
```

(day-8 assignment)
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.

//code

```java
import java.util.*;
public class SBA1_4 {

    public static void main(String[] args) {

                Scanner sc=new Scanner(System.in);
                String s1;
                int count =0;
                System.out.println(" Enter the string");
                s1=sc.nextLine();
                //s1=s1.replace(" ","");
                System.out.println("Enter the element to be searched with
count");
                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");

        }

    }
```

//output

```
 Enter the string
aabgggcj
Enter the element to be searched with count

g

 g appears 3 times


Process finished with exit code 0
```

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.

//code

```java
import java.util.Scanner;

public class SBA1_5 {
    public static boolean checkpalindrome(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 the sentence");
        String str=sc.nextLine();
        String[] arr=str.split(" ");
        int n=arr.length;
        for(int i=0;i<n;i++)
            if(SBA1_5.checkpalindrome(arr[i])) {
                System.out.println(arr[i]+" is palindrome");
            }
            else
                System.out.println(arr[i]+" is not a palindrome");
    }
```

```
}
```

//output

```
"C:\Users\Castro K Joseph\.jdks\openjdk-17.0.2\bin\ja
 2021.3.1\bin" -Dfile.encoding=UTF-8 -classpath "C:\U
enter the sentence
agag abc aabbaa ccjjjcc is jh
agag is not a palindrome
abc is not a palindrome
aabbaa is palindrome
ccjjjcc is palindrome
is is not a palindrome
jh is not a palindrome


Process finished with exit code 0
```