Japneet Kaur (Group-5)

Q1. Write a program to replace a substring inside a string with other string ?

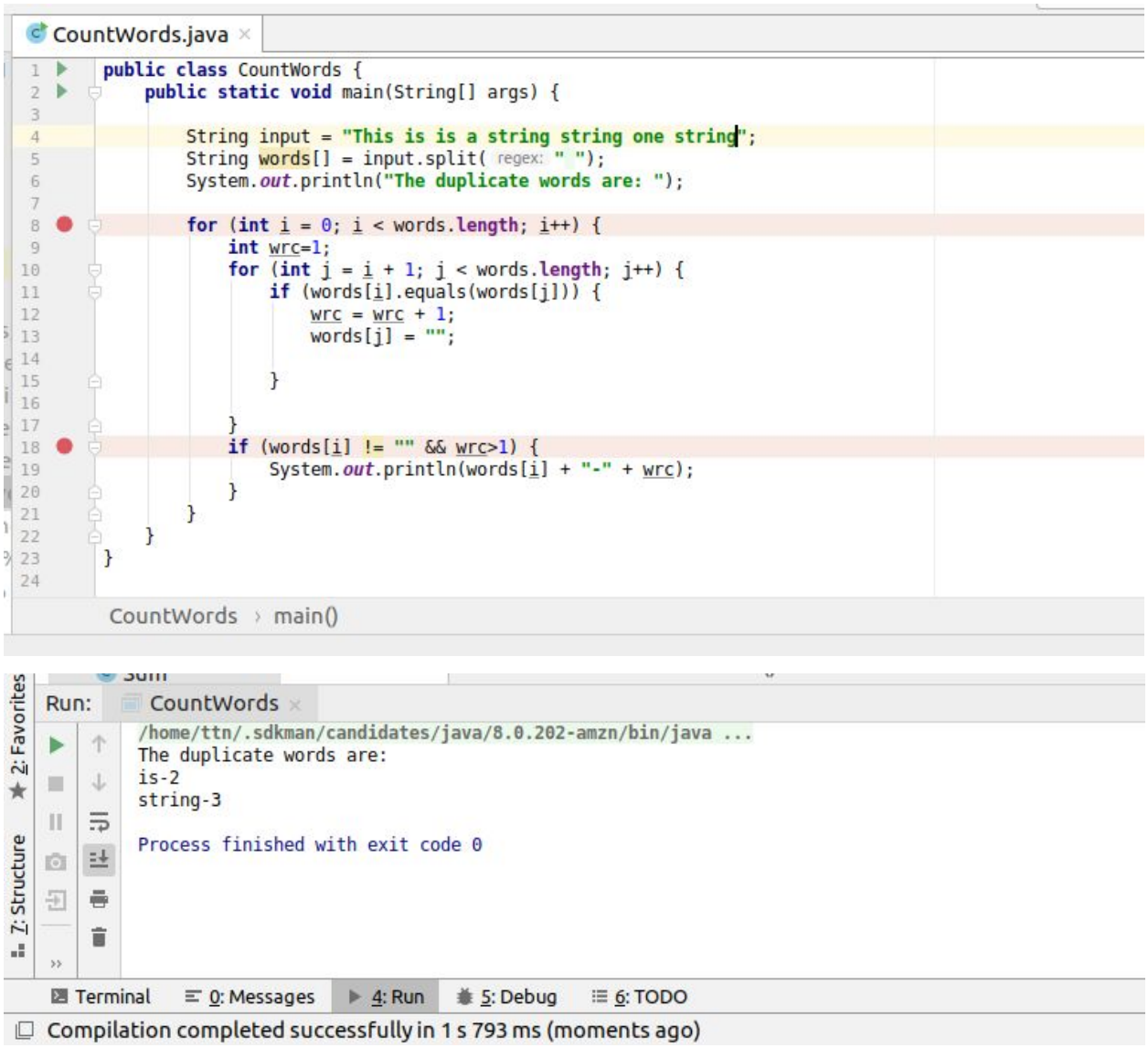
```java
import java.util.*;
public class main {
    public static void main(String[] args) {

        String name = "Japneet";
        String replaced = name.replaceAll( regex: "ee",  replacement: "ii");
        System.out.println("orginal string: " + name);
        System.out.println("replaced string: " + replaced);
    }
}
```

```
Run:  main
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
orginal string: Japneet
replaced string: Japniit

Process finished with exit code 0
```

Terminal 0: Messages 4: Run 6: TODO

Compilation completed successfully in 3 s 994 ms (2 minutes ago)

Q2. Write a program to find the number of occurrences of the duplicate words in a string and print them ?



Q3. Write a program to find the number of occurrences of a character in a string without using loop?

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

    public static void main(String[] args) {
        String str = "This is a string having many characters";
        char ch = 'a';
        int frequency = 0;

        for(int i = 0; i < str.length(); i++) {
            if(ch == str.charAt(i)) {
                ++frequency;
            }
        }

        System.out.println("Frequency of " + ch + " = " + frequency);
    }
}
```

```
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
Frequency of a = 5

Process finished with exit code 0
```

Terminal | 0: Messages | 4: Run | 6: TODO

Compilation completed successfully in 1 s 791 ms (moments ago)

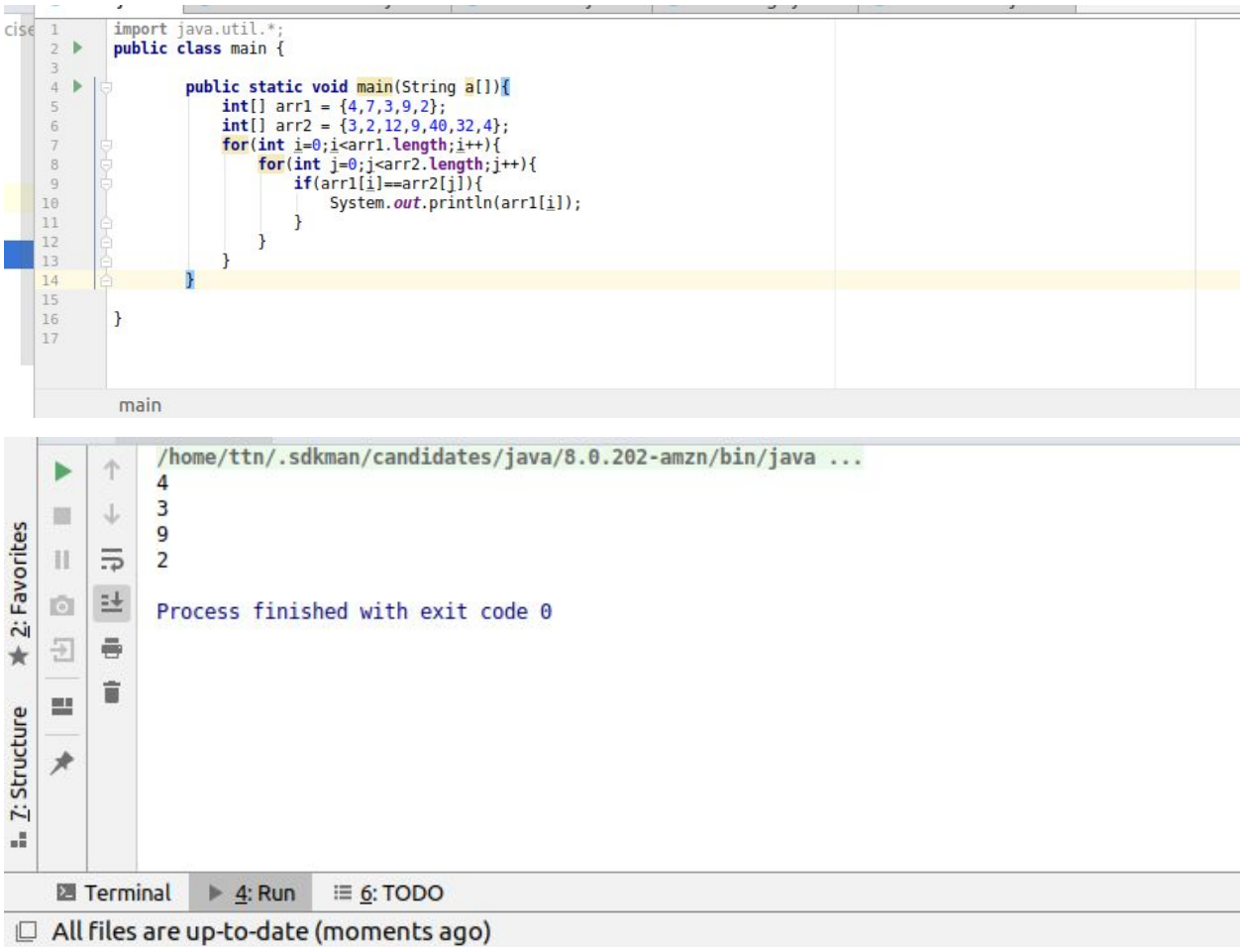
Q4. Calculate the number & Percentage Of Lowercase Letters,Uppercase Letters, Digits And Other Special Characters In A String

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

        public static void main(String args[]) {
            String data = "Hello HOW are you MR 51";
            char [] charArray = data.toCharArray();
            int upper = 0;
            int lower = 0;
            int digit = 0;
            int others = 0;

            int totalChars = data.length();
            for(int i=0; i<data.length(); i++) {
                if (Character.isUpperCase(charArray[i])) {
                    upper++;
                } else if(Character.isLowerCase(charArray[i])) {
                    lower++;
                } else if(Character.isDigit(charArray[i])){
                    digit++;
                } else {
                    others++;
                }
            }
            System.out.println("Total length of the string :"+totalChars);
            System.out.println("Upper case :"+upper);
            System.out.println("Percentage of upper case letters: "+(upper*100)/totalChars+"%");
            System.out.println("Lower case :"+lower);
            System.out.println("Percentage of lower case letters:"+(lower*100)/totalChars+"%");
            System.out.println("Digit :"+digit);
            System.out.println("Percentage of digits :"+(digit*100)/totalChars+"%");
            System.out.println("Others :"+others);
            System.out.println("Percentage of other characters :"+(others*100)/totalChars+"%");
        }
    }

```

```
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
Total length of the string :23
Upper case :6
Percentage of upper case letters: 26%
Lower case :10
Percentage of lower case letters:43%
Digit :2
Percentage of digits :8%
Others :5
Percentage of other characters :21%

Process finished with exit code 0
```

2: Favorites
7: Structure
Terminal
0: Messages
4: Run
6: TODO
Compilation completed successfully in 1 s 737 ms (moments ago)

Q5. Find common elements between two arrays.



Q6. There is an array with every element repeated twice except one. Find that element

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

        public static void main(String a[]){
            int[] arr1 = {4,7,3,9,2,4,7,9,2};
            Arrays.sort(arr1);
            for(int i=0;i<arr1.length;i+=2){
                int j=i+1;
                    if(arr1[i]!=arr1[j]){
                        System.out.println("The element that is not repeated twice in the array is: "+arr1[i]);
                        break;
                    }
                }
            }
        }
```

```
Run:  main
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
The element that is not repeated twice in the array is: 3

Process finished with exit code 0
```

Terminal 0: Messages 4: Run 6: TODO

Compilation completed successfully in 1 s 912 ms (moments ago)

Q7. Write a program to print your Firstname,LastName & age using static block,static method & static variable respectively

main.java | FIrstName.java | CommonElements.java | CountChar.java | Percer

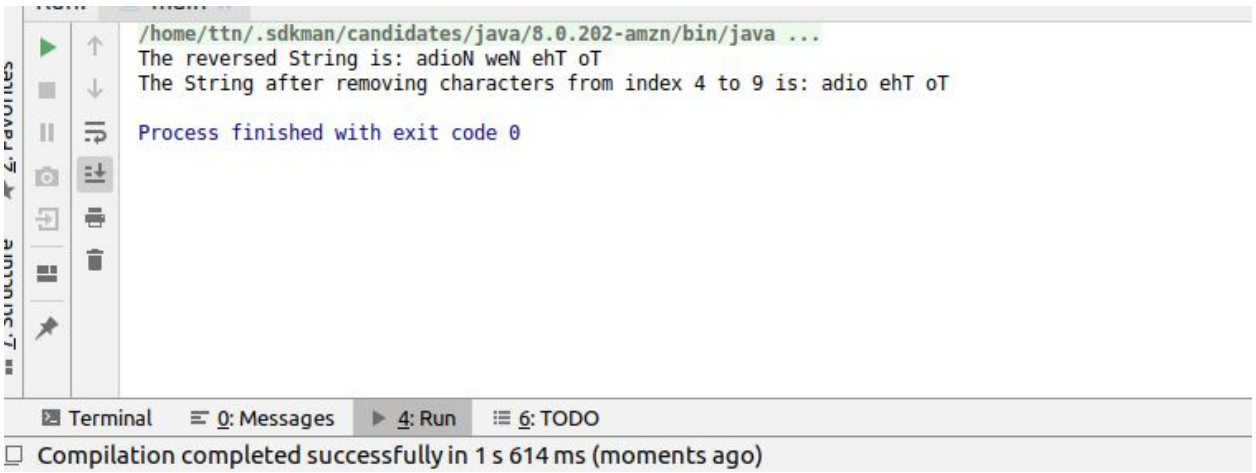
```java
public class FIrstName {
        public static String firstname;
        static{
            firstname="Japneet";
        }
        static String lastname="Kaur";

        static int age=21;
        static void disp(){
        System.out.println("Age is: "+age);
    }

}
```

main.java | FIrstName.java | CommonElements.java | CountChar.java | Percent

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

            public static void main(String args[]) {
                System.out.println("First Name: " + FIrstName.firstname);
                System.out.println("Last Name: " + FIrstName.lastname);
                FIrstName.disp();
            }
}
```

Q8. Write a program to reverse a string and remove character from index 4 to index 9 from the reversed string using String Buffer

```java
import java.util.*;
import java.lang.* ;
import java.io.*;
public class main {

    public static void main(String[] args) {
        StringBuffer input= new StringBuffer("To The New Noida");
        input=input.reverse();
        System.out.println("The reversed String is: "+input);
        input=input.replace( start: 4, end: 9,  str: "");
        System.out.println("The String after removing characters from index 4 to 9 is: "+input);

    }
}
```



Q9.Write a program to display values of enums using a constructor & getPrice() method (Example display house & their prices)

main.java | Enumprac.java | ReverseString.java

```
public class Enumprac {
    enum House{
        E19( p: 86), E20( p: 57), E21( p: 77), E22( p: 92), E23( p: 84);

        public int price;

        House(int p){
            price=p;
        }
        int getPrice(){
            return price;
        }
    }
}
```

main.java | Enumprac.java | ReverseString.java

```
import java.util.*;
import java.lang.* ;
import java.io.*;
public class main {

    public static void main(String args[]) {
        System.out.println("All prices of houses are:");
        for (Enumprac.House p: Enumprac.House.values())
            System.out.println(
                    p + " costs " + p.getPrice() + " lakhs.");
    }
}
```

Run: main

```
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
All prices of houses are:
E19 costs 86 lakhs.
E20 costs 57 lakhs.
E21 costs 77 lakhs.
E22 costs 92 lakhs.
E23 costs 84 lakhs.

Process finished with exit code 0
```

2: Favorites | 7: Structure

Terminal | 4: Run | 6: TODO

All files are up-to-date (moments ago)

Q10.Write a single program for following operation using overloading

A) Adding 2 integer number

B) Adding 2 double

```java
public class Sum {

    public static int sum(int x, int y){
        return(x+y);
    }
    public statid double sum(double x, double y){
        return(x+y);
    }
    public static void main(String[] args) {
        System.out.println(sum( x: 2, y: 4));
        System.out.println(sum( x: 2.3, y: 4.5));
    }
}
```

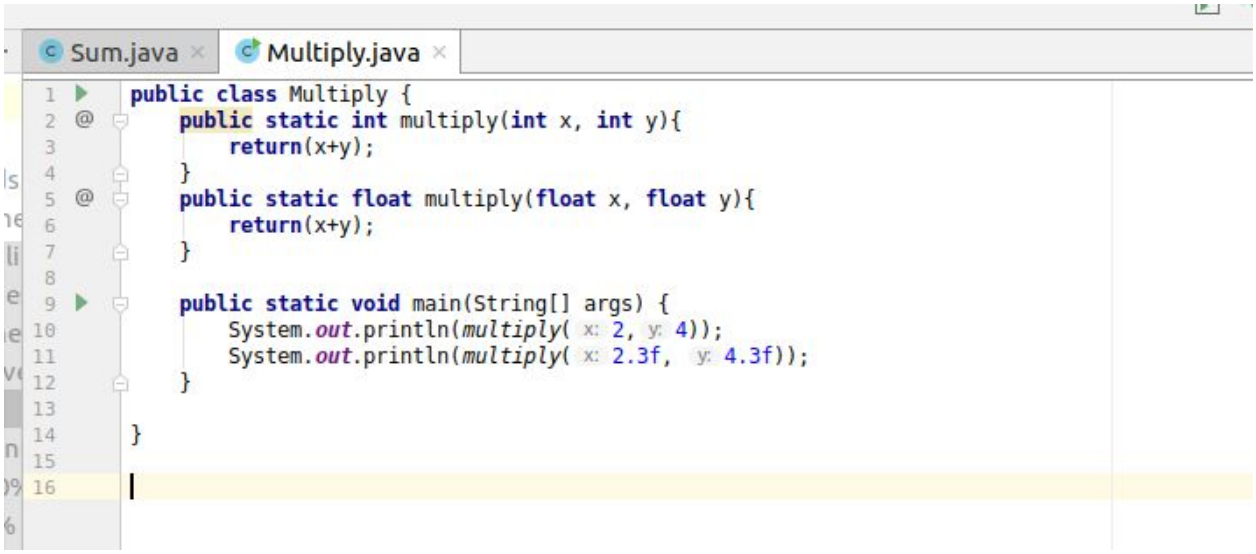
```
Run:  Sum
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
6
6.8

Process finished with exit code 0
```

Terminal | 4: Run | 5: Debug | 6: TODO

All files are up-to-date (moments ago)

C) multiplying 2 float

D) multiplying 2 int



E) concate 2 string

```java
public class Concat {
    public static String s1="String1";
    public static String s2="String2";

    public static String concat()
    {
        return s1 + s2;
    }

    public static void main(String[] args) {
        System.out.println("The concatenated strings are: ");
        System.out.println(concat());
    }


}
```

F) Concate 3 String

```java
public class Concat {
    public static String s1="String1";
    public static String s2="String2";
    public static String s3="String3";

    public static String concat()
    {
        return s1 + s2 + s3;
    }

    public static void main(String[] args) {
        System.out.println("The concatenated strings are: ");
        System.out.println(concat());
    }


}
```

```
Run:  Concat
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
The concatenated strings are:
String1String2String3

Process finished with exit code 0
```

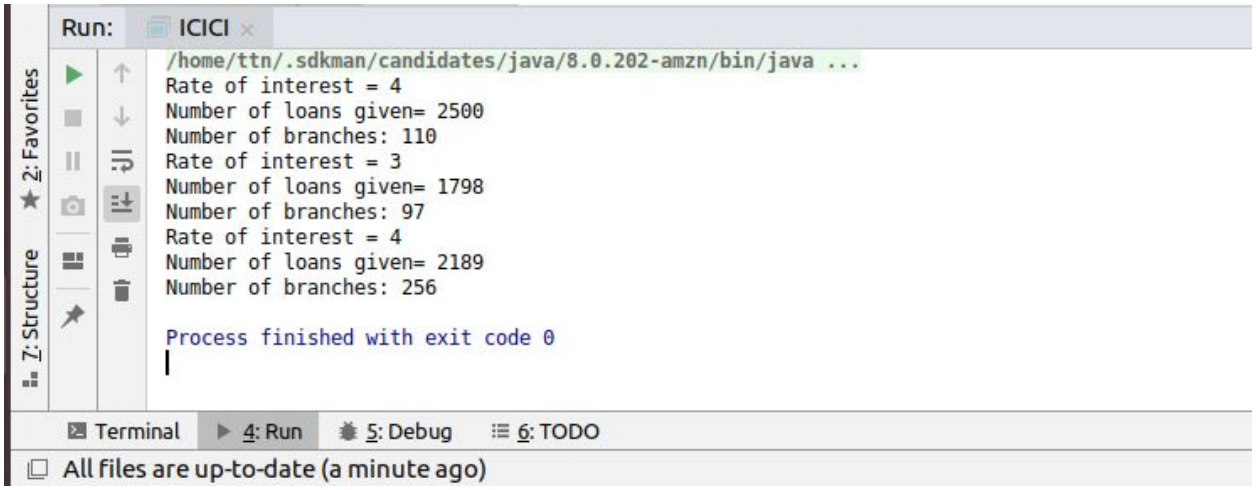
Terminal | 0: Messages | 4: Run | 5: Debug | 6: TODO

Compilation completed successfully in 1 s 769 ms (moments ago)

Q11.Create 3 sub class of bank SBI,BOI,ICICI all 4 should have method called getDetails which provide there specific details like rateofinterest etc,print details of every banks

```java
public class Bank {
    public void getDetails(){
        System.out.println("The details are: ");
    }
}
class SBI extends Bank{
    int rateOfInterest=4;
    int numberofloans=2500;
    int numberofbranches=110;
    public void getDetails(){
        System.out.println("Rate of interest = "+ rateOfInterest);
        System.out.println("Number of loans given= "+ numberofloans);
        System.out.println("Number of branches: "+numberofbranches);
    }
}
class BOI extends Bank {
    int rateOfInterest = 3;
    int numberofloans = 1798;
    int numberofbranches = 97;

    public void getDetails() {
        System.out.println("Rate of interest = " + rateOfInterest);
        System.out.println("Number of loans given= " + numberofloans);
        System.out.println("Number of branches: " + numberofbranches);

    }
}

    class ICICI extends Bank {
        int rateOfInterest = 4;
        int numberofloans = 2189;
        int numberofbranches = 256;

        public void getDetails() {
            System.out.println("Rate of interest = " + rateOfInterest);
```

```java
    public void getDetails() {
        System.out.println("Rate of interest = " + rateOfInterest);
        System.out.println("Number of loans given= " + numberofloans);
        System.out.println("Number of branches: " + numberofbranches);

    }
}

    class ICICI extends Bank {
        int rateOfInterest = 4;
        int numberofloans = 2189;
        int numberofbranches = 256;

        public void getDetails() {
            System.out.println("Rate of interest = " + rateOfInterest);
            System.out.println("Number of loans given= " + numberofloans);
            System.out.println("Number of branches: " + numberofbranches);

        }

        public static void main(String[] args) {
            SBI sbi = new SBI();
            BOI boi = new BOI();
            ICICI icici = new ICICI();
            sbi.getDetails();
            boi.getDetails();
            icici.getDetails();
        }
    }
```


Run:
ICICI
/home/ttn/.sdkman/candidates/java/8.0.202-amzn/bin/java ...
Rate of interest = 4
Number of loans given= 2500
Number of branches: 110
Rate of interest = 3
Number of loans given= 1798
Number of branches: 97
Rate of interest = 4
Number of loans given= 2189
Number of branches: 256
Process finished with exit code 0
2: Favorites
7: Structure
Terminal
4: Run
5: Debug
6: TODO
All files are up-to-date (a minute ago)