

WEEK-6

ROLL NO:230701235

1) Given a String input1, which contains many number of words separated by : and each word contains exactly two lower case alphabets, generate an output based upon the below 2 cases.

Note:

1. All the characters in input 1 are lowercase alphabets.
2. input 1 will always contain more than one word separated by :
3. Output should be returned in uppercase.

Case 1:

Check whether the two alphabets are same.

If yes, then take one alphabet from it and add it to the output.

Example 1:input1 = ww:ii:pp:rr:oo output =

WIPRO Expanation: wod1 is ww, both are same hence take w
word2 is ii, both are same hence take i

word3 is pp, both are same hence take p
word4 is rr, both are same hence take r
word5 is oo, both are same hence take o

Hence the output is WIPRO
Case 2:
If the two alphabets are not same, then find the position value of them and find maximum value – minimum value.

Take the alphabet which comes at this (maximum value - minimum value) position in the alphabet series. Example 2" input1 = zx:za:ee output = BYE

For example:

Input	Result
ww:ii:pp:rr:oo	WIPRO
zx:za:ee	BYE

Code:

```
import java.util.*; class
diff{
    char different(char a, char b){
        if ((int)a != (int)b)
            return (char)((int)'a' + ((int)a-(int)b) - 1);
        return a;
    }
}
```

```

    }
}
public class Main{    public static void
main(String[] args){    Scanner scan = new
Scanner(System.in);
    diff z = new diff();
    String q = scan.nextLine();
    StringBuffer ans = new StringBuffer();
StringBuffer temp = new StringBuffer();
    for(int i = 0;i < q.length();i++){
        if(q.charAt(i) == ':'){
temp.append(" ");
        }
    else{
        temp.append(Character.toString(q.charAt(i)));
    }
    }
    String h = temp.toString();
for(int i = 0;i < temp.length();i++){
if(i%3 == 0){
    ans.append(Character.toString(z.different(h.charAt(i),h.charAt(i+1))));
    }
    }
    System.out.print(ans.toString().toUpperCase());
}
}

```

Output:

	Input	Expected	Got	
✓	ww:ii:pp:rr:oo	WIPRO	WIPRO	✓
✓	zx:za:ee	BYE	BYE	✓

Passed all tests! ✓

2) Given 2 strings input1 & input2.

- Concatenate both the strings.
- Remove duplicate alphabets & white spaces.
- Arrange the alphabets in descending order.

Assumption 1:

There will either be alphabets, white spaces or null in both the inputs.

Assumption 2:

Both inputs will be in lower case.

For example:

Test	Input	Result
1	apple orange	rponlgea
2	fruits are good	utsroigfeda

Code:

```
import java.util.*;
```

```
public class HelloWorld {  
    public static void main(String[] args) {  
        Scanner scan = new Scanner(System.in);  
        String a = scan.nextLine();  
        String b = scan.nextLine();  
        StringBuffer ab = new StringBuffer();  
        if(a.trim().isEmpty() && b.trim().isEmpty()){  
            System.out.print("null");  
        }  
        else{  
            for(int i = 0;i < a.length();i++){  
                if (a.charAt(i) != ' ') {  
                    ab.append(Character.toString(a.charAt(i)));  
                }  
            }  
            for(int i = 0;i < b.length();i++){  
                if (b.charAt(i) != ' '){  
                    ab.append(Character.toString(b.charAt(i)));  
                }  
            }  
            char[] d = ab.toString().toCharArray();  
            Arrays.sort(d);  
            for(int i = d.length - 1;i >= 1;i--){  
                if(d[i] != d[i-1])  
                    System.out.print(d[i]);  
            }  
            System.out.print(d[0]);  
        }  
    }  
}
```

```
}
}
```

Output:

	Test	Input	Expected	Got	
✓	1	apple orange	rponlgea	rponlgea	✓
✓	2	fruits are good	utsroigfeda	utsroigfeda	✓
✓	3		null	null	✓

Passed all tests! ✓

3) You are provided a string of words and a 2-digit number. The two digits of the number represent the two words that are to be processed.

For example:

If the string is "Today is a Nice Day" and the 2-digit number is 41, then you are expected to process the 4th word ("Nice") and the 1st word ("Today").

The processing of each word is to be done as follows:

Extract the Middle-to-Begin part: Starting from the middle of the word, extract the characters till the beginning of the word.

Extract the Middle-to-End part: Starting from the middle of the word, extract the characters till the end of the word.

If the word to be processed is "Nice":

Its Middle-to-Begin part will be "iN".

Its Middle-to-End part will be "ce".

So, merged together these two parts would form "iNce".

Similarly, if the word to be processed is "Today":

Its Middle-to-Begin part will be "doT".

Its Middle-to-End part will be "day".

So, merged together these two parts would form "doTday".

For example:

Input	Result
Today is a Nice Day 41	iNce doTday
Fruits like Mango and Apple are common but Grapes are rare 39	naMngo arGpes

Code:

```
import java.util.*; public class mix{    public
static void main(String[] args){    Scanner
scan = new Scanner(System.in);    String g =
scan.nextLine();    int n =
scan.nextInt(),ones,flag = 0;    StringBuffer
temp = new StringBuffer();    StringBuffer
temp1 = new StringBuffer();    int space = 0;
while (n > 0){    ones = (n %10) - 1;
for(int i = 0; i < g.length();i++){
    if (g.charAt(i) == ' '){
        space = space + 1;
    }
    else if(space == ones && flag == 0){
        temp.append(Character.toString(g.charAt(i)));
    }
    else if(space == ones && flag == 1){
        temp1.append(Character.toString(g.charAt(i)));
    }
}
    space = 0 ;
flag = 1;    n
= n /10;
}
    rew m = new rew();
    System.out.println(m.r(temp1.toString()) + " " + m.r(temp.toString()));
}
}
class rew{
    String r(String a){
int le = a.length(),n,q;
        StringBuffer temp3 = new StringBuffer();
if(le % 2 == 1){    n = ((int)(le/2));    q
= ((int)(le/2));
    }
    else{    n =
((int)(le/2)) - 1;
        q = ((int)(le/2));
    }
    for(int i = n;i >= 0;i--){
```

```

        temp3.append(Character.toString(a.charAt(i)));
    }
    for(int i = q; i < le; i++){
        temp3.append(Character.toString(a.charAt(i)));
    }
    return temp3.toString();
}
}

```

Output:

	Input	Expected	Got	
✓	Today is a Nice Day 41	iNce doTday	iNce doTday	✓
✓	Fruits like Mango and Apple are common but Grapes are rare 39	naMngo arGpes	naMngo arGpes	✓

Passed all tests! ✓