

IRC\_JAVA\_COD\_Strings

Test Summary

- No. of Sections: 1
- No. of Questions: 10
- Total Duration: 180 min

Section 1 - Coding

Section Summary

- No. of Questions: 10
- Duration: 180 min

Additional Instructions:

None

Q1. Write a program to count the vowels in the string.

Input Format

First line to get the input string S.

Output Format

Displays the number of vowels

Constraints

S > 0

Sample Input

string

Sample Output

1

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q2. Write a program to display the middle value of the string. If the string is odd then display the single element in the middle, if even then display two elements from the middle.

Input Format

Input to get a string.

Output Format

Display the middle element as shown in the sample output.

Sample Input

carry

Sample Output

r

Sample Input

lemons

Sample Output

mo

Sample Input

-8

Sample Output

-8

Sample Input

Sample Output

###111	#1
--------	----

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q3. Write a program to check whether the given string is a palindrome.

Input Format

Input to get a string S.

Output Format

Output prints whether the string is palindrome or not.

Sample Input

mom

Sample Output

mom :palindrome

Sample Input

norms

Sample Output

norms :not a palindrome

Sample Input

butitwaslateonthatday

Sample Output

butitwaslateonthatday :not a palindrome

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q4. Write a program to remove all the spaces in the given sentence.

Input Format

Input to get a sentence from the user.

Output Format

The output displays the sentence after removing the spaces.

Sample Input

kite in the cloud

Sample Output

kiteinthecloud

Sample Input

networking

Sample Output

networking

Time Limit: 100 ms Memory Limit: 256 kb Code Size: 1024 kb

Q5. Write a program to check whether the string is lexicographically equal to another string

Input Format

Input to get two strings.

Output Format

Display the output as shown in the sample output.

Note :

- if (string1 > string2) it returns a positive value(difference between the characters)
- if both the strings are equal lexicographically i.e.(string1 == string2) it returns 0.
- if (string1 < string2) it returns a negative value((difference between the characters)

Sample Input

harry  
harry

Sample Output

0

Sample Input

john  
mini

Sample Output

-3

Sample Input

tiger  
lion

Sample Output

8

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q6. Write a program to remove consecutive vowels from a string.

Input Format

Input to get a string.

Output Format

the output displays the string after removing consecutive vowels from it.

Sample Input

cool

Sample Output

col

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q7. **toLowerCase()**  
When we get the usernames for the user in their profiles, some may enter in uppercase, some in lowercase, some in mixed cases. Now we don't want that, we want uniformity in the usernames if we are gonna present a legible report. So let's write a program that converts all the letters of the username into lowercase.

Input Format

Input consist of a string

Output Format

Output prints the string in lowercase

Sample Input

WELCOME COIMBATORE

Sample Output

welcome coimbatore

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q8. **toCharArray()**  
This method converts the given string into a character array i.e first it will calculate the length of the given Java String including spaces and then create an array of char type Create a main class and obtain a string, convert it into an character array and print the same.

Input Format

Input consist of a string

Output Format

Output prints the string

Sample Input

Sample Output

hello	hello
-------	-------

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q9. **Using contains() and trim() method**  
Having finished most of our application for the fair, it's time to focus on minor details that went wrong during a test run of our application in this module. Accidentally some gibberish text with leading and trailing got copied to the clipboard and got pasted in the some of your text documents. Don't worry, still, we have the gibberish text with us, you can manually load each document, and find the text and delete it. Think it will take ages, no we can think of a time saver. Using your programming skills, load each document in a program and find in which files the text got copied. Assume text of the document is given as the input to the program. write a program to find whether the gibberish text is present in the string.

Create a driver class called Main. In the Main method, obtain the inputs from the console (Refer I/O) and prompt whether the gibberish text is present in the main text.

Input Format

First line of the input consist of a sentence  
Second line of the input consist of a string in the sentence

Output Format

Output prints whether the string is found in the sentence or not

Sample Input	Sample Output
One fine morning, a minister from Emperor Akbar's court stolen	String is found in the sentence

Sample Input	Sample Output
One fine morning, a minister from Emperor Akbar's court stolen	String is found in the sentence

Sample Input	Sample Output
One fine morning, a minister from Emperor Akbar's court account	String is not found in the sentence

Sample Input	Sample Output
One fine morning, a minister from Emperor Akbar's court account	String is not found in the sentence

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Q10. Write a program to validate domain names of the email address. The fair organizers have listed the accepted domains as "com", "in", "net", and "org". Write a program to validate email addresses that have the above listed domain names.  
Create a driver class called Main. In the Main method, obtain the inputs from the console and validate the email address.

Input Format

Input consist of the email address

Output Format

Output prints the email address and in next line whether the email address is valid or not.  
Refer sample input and output for formatting specifications.

Sample Input	Sample Output
ram@gmail.com	ram@gmail.com Valid email address

Sample Input	Sample Output
ram@gmail.biz	ram@gmail.biz Invalid email address

Time Limit: - ms Memory Limit: - kb Code Size: - kb

Answer Key & Solution

Section 1 - Coding

Q1

Test Case

Input

Output

lemon

2

Weightage - 20

Input

Output

follow

2

Weightage - 20

Input

Output

member

2

Weightage - 20

Input

Output

tree

2

Weightage - 20

Input

Output

yellow

2

Weightage - 20

Sample Input

Sample Output

string

1

Solution

```
import java.util.Scanner;
class Vow{
    public static void main(String[] args)
    {
        Scanner in = new Scanner(System.in);
        String str = in.nextLine();
```

```
        System.out.print(count_Vowels(str));
    }
    public static int count_Vowels(String str)
    {
        int count = 0;
        for (int i = 0; i < str.length(); i++)
        {
            if (str.charAt(i) == 'a' || str.charAt(i) == 'e' || str.charAt(i) == 'i'
                || str.charAt(i) == 'o' || str.charAt(i) == 'u')
            {
                count++;
            }
        }
        return count;
    }
}
```

Q2 **Test Case**

**Input**

ink

**Output**

n

**Weightage - 10**

**Input**

(\*\*\*)

**Output**

\*

**Weightage - 10**

**Input**

876893

**Output**

68

**Weightage - 20**

**Input**

<<<ni7

**Output**

<n

**Weightage - 20**

**Input**

-3

**Output**

-3

**Weightage - 30**

Input	Output
111ji	1

Weightage - 10

Sample Input	Sample Output
carry	r

Sample Input	Sample Output
lemons	mo

Sample Input	Sample Output
-8	-8

Sample Input	Sample Output
###111	#1

Solution

```
import java.util.Scanner;
class Main{
public static void main(String[] args)
{
    Scanner in = new Scanner(System.in);
    String str = in.nextLine();
    System.out.print(middle(str));
}
public static String middle(String str)
{
    int position;
    int length;
    if (str.length() % 2 == 0)
    {
        position = str.length() / 2 - 1;
        length = 2;
    }
    else
    {
        position = str.length() / 2;
        length = 1;
    }
    return str.substring(position, position + length);
}
}
```



Test Case

Input

Output

noon

noon :palindrome

Weightage - 20

Input

Output

morn

morn :not a palindrome

Weightage - 20

Input

Output

butteritwasbutterlove

butteritwasbutterlove :not a palindrome

Weightage - 30

Input

Output

kik

kik :palindrome

Weightage - 10

Input

Output

late

late :not a palindrome

Weightage - 10

Input

Output

madam

madam :palindrome

Weightage - 10

Sample Input

Sample Output

mom

mom :palindrome

Sample Input

Sample Output

norms	norms :not a palindrome
-------	-------------------------

Sample Input

Sample Output

butitwaslateonthatday	butitwaslateonthatday :not a palindrome
-----------------------	---

Solution

```
import java.util.*;
import java.util.Scanner;
class Main
{
    public static void main(String args[])
    {
        String str, reverse = "";
        Scanner in = new Scanner(System.in);

        str = in.nextLine();

        int length = str.length();
        for (int i = length - 1; i >= 0; i--)
            reverse = reverse + str.charAt(i);
        if (str.equals(reverse))
            System.out.println(str+" :palindrome");
        else
            System.out.println(str+" :not a palindrome");
    }
}
```

Q4

Test Case

Input

Output

rapid fire	rapidfire
------------	-----------

Weightage - 20

Input

Output

skills are developed	skillsaredeveloped
----------------------	--------------------

Weightage - 20

Input

Output

ranging from the begining	rangingfromthebegining
---------------------------	------------------------

Weightage - 20

Input	Output
computer	computer

Weightage - 20

Input	Output
allen harry	allenharry

Weightage - 20

Sample Input	Sample Output
kite in the cloud	kiteinthecloud

Sample Input	Sample Output
networking	networking

Solution

```
import java.util.Scanner;
class Main {
    public static void main(String[] args){
        Scanner in=new Scanner(System.in);
        String str ;
        str=in.nextLine();
        str = str.replaceAll(" ", "");
        System.out.println(str);
    }
}
```

Q5 Test Case

Input	Output
nisha priya	-2

Weightage - 20

Input	Output
richard roy	-6

Weightage - 20

Input	Output
solo minion	6

Weightage - 20

Input	Output
alloy metal	-12

Weightage - 20

Input	Output
unique talent	1

Weightage - 20

Sample Input	Sample Output
harry harry	0

Sample Input	Sample Output
john mini	-3

Sample Input	Sample Output
tiger lion	8

Solution

```
import java.util.Scanner;
class Main{
    public static void main(String args[]) {
        Scanner in=new Scanner(System.in);
        String str1,str2;
        str1=in.nextLine();
        str2=in.nextLine();
        int result = str1.compareTo( str2 );
        System.out.println(result);
    }
}
```

Test Case

Input

follow

Output

follow

Weightage - 20

Input

redeem

Output

redem

Weightage - 20

Input

moon

Output

mon

Weightage - 20

Input

next

Output

next

Weightage - 20

Input

piicture

Output

picture

Weightage - 20

Sample Input

cool

Sample Output

col

Solution

```
import java.util.Scanner;
class Main
{
    static boolean is_vow(char c)
    {
        return (c == 'a') || (c == 'e') ||
            (c == 'i') || (c == 'o') ||
            (c == 'u');
```

```
}
static void removeVowels(String str)
{
    System.out.print(str.charAt(0));
    for (int i = 1;i < str.length(); i++)
        if ((!is_vow(str.charAt(i - 1))) ||
            (!is_vow(str.charAt(i))))
            System.out.print(str.charAt(i));
}
public static void main(String[] args)
{
    String str;
    Scanner in=new Scanner(System.in);
    str=in.nextLine();
    removeVowels(str);
}
}
```

Q7

Test Case

Input

WELCOME COImbatore

Output

welcome coimbatore

Weightage - 20

Input

HeLlO WORLD

Output

hello world

Weightage - 20

Input

GOod moRNING

Output

good morning

Weightage - 20

Input

HaPpY

Output

happy

Weightage - 20

Input

HiGHEr STUdieS IN AbROAd Are hIGHLy ExpEnSivE

Output

higher studies in abroad are highly expensive

Weightage - 20

Sample Input

Sample Output

WELCOME COIMBATORE	welcome coimbatore
--------------------	--------------------

Solution

```
import java.io.*;
import java.util.*;
class Main {
    public static void main(String [] args) {
        Scanner sc = new Scanner(System.in);
        String username = sc.nextLine();
        System.out.println(username.toLowerCase());
    }
}
```

Q8

Test Case

Input

Output

welcome bangalore	welcome bangalore
-------------------	-------------------

Weightage - 20

Input

Output

good morning	good morning
--------------	--------------

Weightage - 20

Input

Output

live laugh and work	live laugh and work
---------------------	---------------------

Weightage - 20

Input

Output

actions are priceless	actions are priceless
-----------------------	-----------------------

Weightage - 20

Input

Output

enjoy every moment	enjoy every moment
--------------------	--------------------

Weightage - 20

Sample Input

Sample Output

hello	hello
-------	-------

Solution

```
import java.io.*;
import java.util.*;
class Main {
public static void main(String [] args) {
    Scanner sc = new Scanner(System.in);
    String str = sc.nextLine();
    char ch [] = str.toCharArray();
    for(int i=0;i<ch.length;i++) {
        System.out.print(ch[i]);
    }
}
```

Q9

Test Case

Input

Output

One fine morning, a minister from Emperor Akbar's gathered	String is found in the sentence
--	---------------------------------

Weightage - 20

Input

Output

Child can study at Hogwarts and learn about life Kids	String is not found in the sentence
---	-------------------------------------

Weightage - 20

Input

Output

Each story helps a child enter a completely different world for children	String is not found in the sentence
--	-------------------------------------

Weightage - 20

Input

Output

Our thousands of readers have appreciated our content thousands	String is found in the sentence
---	---------------------------------

Weightage - 20



Input	Output
Our thousands of readers have appreciated our countless efforts	String is found in the sentence

Weightage - 20

Sample Input	Sample Output
One fine morning, a minister from Emperor Akbar's stolen	String is found in the sentence

Sample Input	Sample Output
One fine morning, a minister from Emperor Akbar's stolen	String is found in the sentence

Sample Input	Sample Output
One fine morning, a minister from Emperor Akbar's account	String is not found in the sentence

Sample Input	Sample Output
One fine morning, a minister from Emperor Akbar's account	String is not found in the sentence

Solution

```
import java.io.*;
import java.util.*;
class Main {
public static void main(String [] args) {
    String sentence,search;
    Scanner sc = new Scanner(System.in);
    sentence = sc.nextLine();
    search = sc.nextLine();
    if(sentence.contains(search.trim())) {
        System.out.println("String is found in the sentence");
    }
    else {
        System.out.println("String is not found in the sentence");
    }
}
}
```

Q10 Test Case

Input	Output
ram@gmail.com	ram@gmail.com Valid email address

Weightage - 20

Input	Output
ram@gmail.biz	ram@gmail.biz Invalid email address

Weightage - 20

Input	Output
rayon@yahoo.net	rayon@yahoo.net Valid email address

Weightage - 20

Input	Output
morsh@hotmail.in	morsh@hotmail.in Valid email address

Weightage - 20

Input	Output
stephen@yahoo.us	stephen@yahoo.us Invalid email address

Weightage - 20

Sample Input	Sample Output
ram@gmail.com	ram@gmail.com Valid email address

Sample Input	Sample Output
ram@gmail.biz	ram@gmail.biz Invalid email address

Solution

```
import java.io.*;
import java.util.*;
class Main {
public static void main(String [] args) {
    Scanner sc = new Scanner(System.in);
    String email = sc.nextLine();
    System.out.println(email);
    if(email.contains("com") || email.contains("in") || email.contains("net") || email.contains("org")) {
        System.out.println("Valid email address");
    }
    else {
```

```
System.out.println("Invalid email address");
```

```
}
```

```
}
```

```
}
```