Accept a name and print it.

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

str

Raj

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

stack

heap

String str=sc.next();//vidya nidhi

***out***.print(str);//vidya

}

}

import static java.lang.System.out;

import java.util.\*;

public class Main {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

String str=sc.nextLine();// vidya nidhi

out.print(str); //vidya nidhi

}

}

In java string is immutable ie. You can not modify original string.

Public final class sString

{

Public string toUpperCase(){}

}

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

str

raj

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

ss

Scanner sc=**new** Scanner(System.***in***);

RAJ

String str=sc.next();//raj

***out***.print(str);//raj

String ss=str.toUpperCase() //RAJ

***out***.print(ss);//RAJ

str=ss;

New string get created and return reference , since we have not given any handle it is hanging in air

***out***.print(str);//RAJ

}

}

In java string is immutable ie. You can not modify original string.

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

str

raj

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

RAJ

String str=sc.next();//raj

***out***.print(str);

str=str.toUpperCase()

***out***.print(str);

}

}

How to check both string are equal or not ?We can not use == to check value

as it check reference ie [arrow]. To check value use “equals()” method which will return Boolean.

**import** **static** java.lang.System.***out***;

Str1

raj

**import** java.util.\*;

equals check

value

== checks

reference

[Arrow]

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//raj

Str2

raj

String str2=sc.next();//raj

***out***.print(str1.equals(str2));//true(data)

***out***.println(str1==str2);(reference ) //false

}

}

**import** **static** java.lang.System.***out***;

Str1

raj

**import** java.util.\*;

equals check

value

== checks

reference

[Arrow]

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//raj

Str2

raj

String str2=sc.next();//raj

***out***.print(str1.equals(str2));//T

str1=str2;

String pool

It can not have duplicate value

***out***.print(str1.equals(str2));//T

***out***.print(str1== str2);//T

raj

***out***.print(str1==”raj”)//F

s

***String s=”raj”;***

s==ss //t

s.equals(ss)//T

***String ss=”raj”;***

ss

}

}

To solve all logical program without library function we will convert string to Array.

How to convert string to array

Str1

raj

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();

|  |  |  |
| --- | --- | --- |
| r | a | j |

//string to Array

ch

**char**[] ch=str1.toCharArray();

//converting string to array

**for**(**char** c**:**ch)

***out***.println(c);//r a j

//char array to string(static method)

ss

raj

String ss=String.*valueOf*(ch);

***out***.println(ss);

}

}

How to convert string to array using your own logic

import static java.lang.System.out;

import java.util.\*;

Raj

Str1

public class Main {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

String str1=sc.next();//Raj

//string to Array

ch

char[] ch=toCharArraymy(str1);

Raj

for(char c:ch)

ss

out.println(c);

//char array to string(static method)

String ss=String.valueOfmy(ch);

out.println(ss);

Str1

}

|  |  |  |
| --- | --- | --- |
| R | a | j |

public static char[] toCharArraymy(String str1)

{

ch

char[] ch=new char[str1.**length()**];//3

int i;

for(i=0;i<str1.**length()**;i++)

ch[i]=str1.charAt(i);

return ch;

}

}

How to convert Array to string using your own logic

“”

s

public static String valueOfmy(char[] ch)

{ String s="";

“r”

int i;

“ra”

for(i=0;i<ch.length;i++)//3

s=s+ch[i];

“raj”

return s;

}

Copy string

**import** **static** java.lang.System.***out***;

raj

Str1

**import** java.util.\*;

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

ch

|  |  |  |
| --- | --- | --- |
| 0 | 1 | 2 |
| r | a | j |

String str1=sc.next();//raj

**int** j=0;

**char**[] ch=str1.toCharArray();

**char** [] cpy=**new** **char**[ch.length];

cpy

|  |  |  |
| --- | --- | --- |
| 0 | 1 | 2 |
| r | a | j |

**for**(**char** c**:**ch)

cpy[j++]=c;//3

raj

String ss=String.*valueOf*(cpy);

ss

***out***.println(ss);

}

}

string length

**import** **static** java.lang.System.***out***;

Str1

VITA

**import** java.util.\*;

**public** **class** Myclass {

|  |  |  |  |
| --- | --- | --- | --- |
| V | I | T | A |

**public** **static** **void** main(String[] args) {

Ch1

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//vita

**char**[] ch1=str1.toCharArray();

Len=1 2 3 4

**int** len=0;

**for**(**char** c:ch1)

{

len++;

}

***out***.print(len);//4

int l= str1.length();

for(int i=0;i<l; i++)

***out***.print(str1.charAt(i));//VITA

//calling method in loop condition is not a good practice

}

}

|  |  |  |
| --- | --- | --- |
| 0 | 1 | 3 |
|  |  |  |

String str1=”Vidya”;

String str2=”Nidhi”;

**String str3=str1+” “+str2;**

**String str4=str1.concate(str2);**

join two string. Eg. Input1= Vidya input2=nidhi

O/P Vidyanidhi o/p vidya nidhi

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

Ch1

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 |
| **V** | **I** | **D** | **Y** | **a** |

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//Vidya

String str2=sc.next();//Nidhi

**int** i,j,k;

j=k=0;

Str1.length()+str2.length()

Ch2

**char**[] ch3=**new** **char**[20];

**char**[] ch1=str1.toCharArray();

**char** [] ch2=str2.toCharArray();

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 |
| **N** | **I** | **D** | **H** | **i** |

**for**(i=0;i<ch1.length;i++)

ch3[k++]=ch1[i];

K🡺 11 i🡺5

J🡺5

ch3[k++]=’ ‘;

**for**(j=0;j<ch2.length;j++)

Ch3

ch3[k++]=ch2[j];

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| **V** | **I** | **D** | **Y** | **a** |  | **N** | **I** | **D** | **H** | **i** |

String ss=String.*valueOf*(ch3);

***out***.println(ss);

}

**Compare two string and check both are same or not.**

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

**public** **class** Myclass {

Vita Vina

str1.equals(str2)🡺true

str1.compareTo(str2)🡺 ( 0,1,-1 )

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//Vita

String str2=sc.next();//Vito

**int** i,j,flag=0;

|  |  |  |  |
| --- | --- | --- | --- |
| **V** | **i** | **t** | **a** |

**char**[] ch1=str1.toCharArray();

**char** [] ch2=str2.toCharArray();

|  |  |  |  |
| --- | --- | --- | --- |
| **V** | **i** | **t** | **o** |

**if**(ch1.length==ch2.length)

{ **for**(i=0;i<ch1.length;i++)

{ **if**(ch1[i]!=ch2[i])

{

flag=1;

**break**;

}

}

**if**(flag==1)

***out***.println("string are not same");

**else**

***out***.println("string == same");

}

**else**

***out***.println("string ---are not same");

}

}

Reverse string 🡺 Vita O/p atiV

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

Str1

Vita

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//Vita

String str2;

Ch

|  |  |  |  |
| --- | --- | --- | --- |
| 0 | 1 | 2 | 3 |
| V a | i t | t i | a V |

**int** i;

**char** t;

**char**[] ch1=str1.toCharArray();

**int** l=ch1.length;//4

**for**(i=0;i<l/2;i++)4/2🡺2 (012)

i

{

t=ch1[i];

ch1[i]=ch1[l-1-i];4-1-1

String s=””; 0123

**char**[] ch1=str1.toCharArray();// Vita

**int** l=ch1.length;//4

for(i=l-1; i>=0;i--)

s=s+ch[i];//atiV VIDYA

ch1[l-1-i]=t;

}

str2=String.*valueOf*(ch1);

***out***.print(str2);

}

}

**Accept a string and check if it is palindrome or not**

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//NITIN

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 |
| N | I | T | T | N |

**int** i,flag=0;;

**char**[] ch1=str1.toCharArray();//5

**int** l=ch1.length;

**for**(i=0;i<l/2;i++)//5/2🡺2

{

**if**(ch1[i]!=ch1[l-1-i])

{ flag=1;

**break**;

}

}

**if**(flag==1) ***out***.print("not a palindrome");

**else** ***out***.print("palindrome string");

}

}

**Q🡺Accept 3 words from user [“Truck”,”CAR”,”Train”]**

**String[] s={“Truck”, “Car”,”train”}**

**Accept a paragraph having these words and count occurrence of each word.**

**Q🡺 Accept a sentence from user , accept a word from user and count occurrence of that word**

**Test1 welcome to VITA. VITA is CDAC centre. Savitama’m is director🡺Vita 3 time**

**Q🡺 Accept a word from user accept a character from user and count occurrence of that character**

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//vinit

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 |
| v | i | n | i | t |

**int** i,c=0;

char ch= sc.next().charAt(0);//i

**char**[] ch1=str1.toCharArray();

**int** l=ch1.length;//5

ch=>i

**for**(i=0;i<l;i++)

{

**if**(ch1[i]==ch)

++c;//1 2

}

S.o.p(ch+”occurred ”+c+ times);

}

}

**Q🡺 Accept a word , accept a character and delete all occurrence of that character**

**Eg. Input Vidyanidhi**

**Input ‘i’**

**Output🡺Vdyandh**

ch

**Q🡺 Accept a word from user accept a character from user and delete occurrence of that character**

**Input vidyanidhi 🡺i O/P vdyandh**

**import** **static** java.lang.System.***out***;

**import** java.util.\*;

**public** **class** Myclass {

**public** **static** **void** main(String[] args) {

Scanner sc=**new** Scanner(System.***in***);

String str1=sc.next();//vinii

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 |
| v | i | n | i | t |
| v | n | i | t | t |
| v | n | t | t | t |

**int** i,k,flag=0;;

char ch= sc.next().charAt(0);//i

**char**[] ch1=str1.toCharArray();

**int** l=ch1.length;//5

Ch=>i

**for**(i=0;i<l;i++) l🡺5🡺4

{ 1

Char[] fdata=new Char[str1.length()];

**char**[] ch1=str1.toCharArray();

K=0;

**for**(i=0;i<l;i++)

**if**(ch1[i]!=ch)

fdata[k++]=ch1[i];

String ss=String.valueOf(fdata);

**if**(ch1[i]==ch) n ==i

{

**for**(k=i;k<l-1;k++) l-1(4-1)

{

ch1[k]= ch1[k+1];

}

i--

l--;

}

}

String result="";

for(i=0;i<l;i++)

result=result+ch1[i];

}

}

**Q🡺 Accept a word and print unique character**

**Input vidyanidhi🡺vidyanh**

**Q🡺 Accept a sentences from user and count the words.**

public class Myclass {

    public static void main(String[] args) {

        int a,b;

        a=5;

        b=2;

     float c=( float)a/b;

        System.out.println(c);//2.5

        System.out.println(count("welcome to  DAC DBDA"));

    }

public static int count(String word)

 {

    if (word == null || word.isEmpty())

    { return 0;

    }

    int wordCount = 0;

    boolean isWord = false;

    int endOfLine = word.length() - 1;

     char[] characters = word.toCharArray();

      for (int i = 0; i < characters.length; i++)

       { // if the char is a letter, word = true.

         if (Character.isLetter(characters[i]) && i != endOfLine)

          { isWord = true;

            // if char isn't a letter and there have been letters before, // counter goes up.

         }

         else if (!Character.isLetter(characters[i]) && isWord)

          { wordCount++; isWord = false;

             // last word of String; if it doesn't end with a non letter, it // wouldn't count without this.

            }

            else if (Character.isLetter(characters[i]) && i == endOfLine)

            { wordCount++;

            }

        }

        return wordCount;

    }

}

**Accept a sentence and print longest word**

char arr[]="You are at Vidyanidhi";

void main()

{

int cnt=0,max=0,i=0,l,lw;

//puts(arr);

//gets(arr);

//puts(arr);

while(arr[i]!='\0')

{

printf("%c",arr[i]);

cnt=0;

l=i;

while(arr[i]!=' '&&arr[i]!='\0')

{ printf("%c",arr[i]);

cnt++;

i++;

}

printf("%d",cnt);

if(cnt>max)

{

max=cnt;

lw=l;

}

i++;

}

printf("%d",cnt);

printf("%d",lw);

for(i=lw;i<lw+max;i++)

printf("%c",arr[i]);

getch();

}\*/

Occurance of substring eg. Input =>

welcome to SMvita, SMvita is a CDAC centre, Savita ma’am is director (vita occurred 🡺3)

string[] str={“DAC” ,“DBDA”, “CDAC”} ; 🡺SMvita has DAC and DBDA course and it is CDAC ATC with DAC- 120 and DBDA 60 capacity

#include<stdio.h>

#include<string.h>

int instring(char \*,char \*);

int main()

{

char str1[80],str2[15];

int pos;

scanf("%s %s",str1,str2);

pos=instring(str1,str2);

if(pos)

printf("\n\nWord occurs %d times.",pos);

else

printf("\n\nWord not found");

return 0;

}

instring(char \*str1,char \*str2)

{

int i,j,k,cnt=0;

int l1=strlen(str1);

int l2=strlen(str2);

for(i=0;i<=l1-l2;i++)

{

j=0;

k=i;

while((str1[k]==str2[j])&&(j<l2))

{ k++;

j++;

}

if(j==l2)

{ printf("\nWord \'%s\' Found at position %d to %d",str2,i,i+(l2-1));

cnt++;

}

}

return cnt;

}

**Write a complete program to find the length of maximum subsequence of '1' in the given string as '0' & '1'**

**if there is no subsequence of '1' print '-1'**

**import java.util.\*;**

**public class Main**

**{**

**public static void main(String[] args) {**

**int n=0, t;**

**int currcount = 0;**

**int maxcount=0;**

**Scanner sc=new Scanner(System.in);**

**String s=sc.next();**

**int len =s.length();**

**char[] ch=s.toCharArray();**

**while(n<len)**

**{**

**currcount=0;**

**if (ch[n]=='1'&&n<len-1)**

**{**

**currcount++;**

**t=n+1;**

**while(ch[t]=='1'&&t<len-1)**

**{**

**currcount++;**

**t++;**

**}**

**if**

**(currcount > maxcount)**

**maxcount=currcount;**

**}**

**n++;**

**}**

**if(maxcount!=0)**

**System.out.println(maxcount);**

**else**

**System.out.println("-1");**

**}**

**}**

**#include<stdio.h>**

**#include<stdlib.h>**

**#include<string.h>**

**int main()**

**{**

**int n=0, len ,t;**

**int currcount = 0;**

**int maxcount=0;**

**char \*ch=(char\*)malloc(sizeof(char)\*100);**

**scanf("%s",ch);**

**len=strlen(ch);**

**while(n<len)**

**{**

**currcount=0;**

**if (ch[n]=='1')**

**{**

**currcount++;**

**t=n+1;**

**while(ch[t]=='1')**

**{**

**currcount++;**

**t++;**

**}**

**if**

**(currcount > maxcount)**

**maxcount=currcount;**

**}**

**n++;**

**}**

**if(maxcount!=0)**

**printf("%d \n",maxcount);**

**else**

**printf("-1");**

**free(ch);**

**return 0;**

**}**