1. Write a java program to display current Date and Time.

import java.time.LocalDate;

import java.time.LocalTime;

public class dateTime {

  public static void main(String[] args) {

    LocalDate date=LocalDate.now();

    LocalTime time=LocalTime.now();

    System.out.println("Date : "+date);

    System.out.println("Time : "+time);

  }

}

 2. Write a java program to calculate the volume of the cylinder.

import java.util.\*;

public class volume {

public static void main(String args[])

{

  int r, h;

     Scanner in = new Scanner(System.in);

     System.out.print("Enter your radius: ");

     r = in.nextInt();

     System.out.print("Enter your height: ");

     h = in.nextInt();

     double V= (3.14)\*(r\*r\*h);

     System.out.print("Volume is "+V);

}

}

> Task :volume.main()

Enter your radius: 5

Enter your height: 4

Volume is 314.0

 3. A pen costs 50$ and it is been sold at a discount of 12%, Write a program to display discount amount and selling price of the pen?

public class discountAmt {

public static void main(String[] args) {

double discount=0.12\*50;

    double price = 50-discount;

    System.out.println("The discount amount : "+discount);

    System.out.println("The Selling Price : "+price);

}

}

 4. Write a java program to find the ASCII value of the character.

import java.util.\*;

public class volume {

public static void main(String args[])

{

     Scanner sc = new Scanner(System.in);

     System.out.print("Enter your character: ");

     char c = sc.next().charAt(0);

     int a = c;

     System.out.println("The ASCII value of " + c + " is: " + a);

}

}

Enter your character: a

The ASCII value of a is: 97

5. Write a java program to check if given number is a perfect square.

import java.util.\*;

public class perfectSquare {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

double n=sc.nextDouble();

double s= Math.sqrt(n);

sc.close();

if((s-Math.floor(s))==0)

{

System.out.println("Perfect Square");

}

else

{

System.out.println("Not a Perfect Square");

}

}

}

 6. Write a java program to check if input year is leap year or not.

import java.util.\*;

public class volume {

public static void main(String args[])

{

     Scanner sc = new Scanner(System.in);

     System.out.print("Enter your year: ");

     int y = sc.nextInt();

     if(y%4==0)

     {

         System.out.println(y+" is a leap year");

     }

     else

     {

         System.out.println(y+" is not a leap year");

     }

}

}

> Task :volume.main()

Enter your year: 2001

2001 is not a leap year

7. Write a java program to calculate the average value of the array elements.

import java.util.\*;

public class average {

public static void main(String[] args) {

System.out.print("Enter the number of elements : ");

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

int i;

double sum=0;

    int[] a=new int[n];

    System.out.print("Enter the array elements : ");

     for(i=0;i<n;i++)

     {

     a[i]=sc.nextInt();

     }

     for(i=0;i<n;i++)

     {

     sum=a[i]+sum;

     }

     double avg=sum/n;

     System.out.println("The average : "+avg);

}

}

8. Write a java program to create a file in java.

import java.io.File;

import java.io.IOException;

public class CreateFile {

public static void main(String[] args) {

     try {

         File myObj = new File("filename.txt");

         if (myObj.createNewFile()) {

             System.out.println("File created: " + myObj.getName());

         } else {

             System.out.println("File already exists.");

         }

     } catch (IOException e) {

         System.out.println("An error occurred.");

         e.printStackTrace();

     }

}

}

Task :CreateFile.main()

File already exists.

9. Write a java program to write a data to the file using FileOutputStream.

import java.io.FileOutputStream;

public class fileoutputStream {

public static void main(String[] args) {

try {

FileOutputStream ft=new FileOutputStream("C:\\Users\\USER\\Desktop\\text.txt");

ft.write(76);

ft.close();

} catch ( Exception e) {

e.printStackTrace();

}

}

}

10. Write a java program to copy data from one file to another file.

import java.io.\*;

import java.util.\*;

class CreateFile {

public static void main(String arg[]) throws Exception {

     Scanner sc = new Scanner(System.in);

     System.out.print("Provide source file name :");

     String sfile = sc.next();

     System.out.print("Provide destination file name :");

     String dfile = sc.next();

     FileReader fin = new FileReader(sfile);

     FileWriter fout = new FileWriter(dfile, true);

     int c;

     while ((c = fin.read()) != -1) {

         fout.write(c);

     }

     System.out.println("Copy finish...");

     fin.close();

     fout.close();

}

}

Task :compileJava

> Task :processResources NO-SOURCE

> Task :classes

> Task :CreateFile.main()

Provide source file name :

 11. Write a java program to convert the string totally to uppercase.

import java.util.\*;

public class uppercase {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter the string :");

String s=sc.nextLine();

String upper=s.toUpperCase();

System.out.print("String in Uppercase :");

System.out.println(upper);

  }

}

12. Write a java program to concatenate two strings.

import java.util.\*;

class Strcon

{

public static void main(String args[])

{

     String str1,str2;

     Scanner sc = new Scanner(System.in);

     System.out.println("Enter the 1st string");

     str1=sc.nextLine();

     System.out.println("Enter the 2nd string");

     str2=sc.nextLine();

     System.out.println("Concatenated String is ");

     System.out.println(str1.concat(str2));

}

}

Task :Strcon.main()

Enter the 1st string

Chris

Enter the 2nd string

Rock

Concatenated String is

ChrisRock

13. Write a java program to count the number words in a string.

import java.util.\*;

public class countWords {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter the string :");

String s=sc.nextLine();

String[] words=s.split(" ");

System.out.println("The number of words is : "+words.length);

}

}

14. Write a java program to read two string user input and check if first contains the second.

import java.util.\*;

public class javachalng {

     public static boolean is\_str\_contains(String str1, String str2) {

         if (str1 == null || str2 == null) {

             throw new IllegalArgumentException("You can't pass null strings as input.");

         }

         boolean ans = false;

         for (int i = 0; i < str1.length() - 1; i++) {

             if (str1.charAt(i) == str2.charAt(0)) {

                 for (int j = 0; j < str2.length(); j++) {

                     if ((i + j) < str1.length() && str2.charAt(j) == str1.charAt(i + j) && j == str2.length() - 1) {

                         ans = true;

                         break;

                     }

                 }

             }

         }

         return ans;

     }

     public static void main(String[] args) {

         Scanner scanner = new Scanner(System.in);

         System.out.print("Input first string: ");

         String str1 = scanner.nextLine();

         System.out.print("Input second string: ");

         String str2 = scanner.nextLine();

         System.out.println("If the first string contains the second one? "+is\_str\_contains(str1, str2));

     }

}

Input first string: I am here

Input second string: am

If the first string contains the second one? True

I love India

 15. Write a java program to print all the permutations of String “GOD”.

public class permutationString {

public static void main(String[] args) {

permutation(" ","GOD");

}

private static void permutation(String string, String string2) {

if(string2.isEmpty())

{

System.out.println(string+string2);

}

else

{

for(int i=0;i<string2.length();i++)

{

permutation(string+string2.charAt(i),string2.substring(0, i)+string2.substring(i+1, string2.length()));

}

}

}

}

 16. Write a java program to print the duplicate characters of the string.

import java.util.\*;

public class javachalng

{

public static void main(String[] args) {

     Scanner sc = new Scanner(System.in);

     String string1=sc.nextLine();

     int count;

      char string[] = string1.toCharArray();

     System.out.println("Duplicate characters in a given string: ");

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

         count = 1;

         for(int j = i+1; j <string.length; j++) {

             if(string[i] == string[j] && string[i] != ' ') {

                 count++;

                 string[j] = '0';

            }

         }

         if(count > 1 && string[i] != '0')

             System.out.println(string[i]);

     }

}

}

> Task :javachalng.main()

Duplicate characters in a given string:

I

 17. Write a java program to print all the leaf nodes of the binary tree

public class Main {

public static void main(String[] args) throws Exception {

TreeNode n10 = new TreeNode(10);

TreeNode n34 = new TreeNode(34);

TreeNode n43 = new TreeNode(43);

TreeNode n78 = new TreeNode(78);

TreeNode n25 = new TreeNode(25, n10, n34);

TreeNode n65 = new TreeNode(65, n43, n78);

TreeNode root = new TreeNode(50, n25, n65);

 System.out .println("Printing all leaf nodes of a binary tree in Java (recursively)"); printLeafNodes(root);

System.out.println();

System.out .println("Printing all leaf nodes of binary tree in Java using stack"); printLeafNodesIteratively(root);

}

private static class TreeNode

 { int value;

TreeNode left;

TreeNode right;

TreeNode(int data)

{ this.value = data; }

TreeNode(int data, TreeNode left, TreeNode right) { this.value = data; this.left = left; this.right = right; }

}

 public static void printLeafNodes(TreeNode node) {

if (node == null)

{ return; }

if (node.left == null && node.right == null)

{ System.out.printf("%d ", node.value); } printLeafNodes(node.left); printLeafNodes(node.right); }

  public static void printLeafNodesIteratively(TreeNode root) {

 if (root == null) { return; }

Stack<TreeNode> stack = new Stack<>();

stack.push(root);

while (!stack.isEmpty())

{

TreeNode node = stack.pop();

if (node.right != null)

{ stack.add(node.right); }

 if (node.left != null)

{ stack.add(node.left); }

 if (node.left == null && node.right == null)

{ System.out.printf("%d ", node.value); }

}

}

}

Output

Printing all leaf nodes of binary tree in Java (recursively) 10 34 43 78

Printing all leaf nodes of binary tree in Java using stack 10 34 43 78

18. Write a java program to calculate the largest number from the given three numbers using ternary operator.

import java.util.Scanner;

public class javachalng

{

public static void main(String[] args)

{

     int a, b, c, d;

     Scanner s = new Scanner(System.in);

     System.out.println("Enter all three numbers:");

     a = s.nextInt();

     b = s.nextInt();

     c = s.nextInt();

     d = c > (a > b ? a : b) ? c : ((a > b) ? a : b);

     System.out.println("Largest Number:"+d);

}

}

Enter all three numbers:

2

9

3

Largest Number:9

19. Write a java program to check whether given number is an ugly number. Note: In number system, ugly numbers are positive numbers whose only prime factors are 2,3,5.

import java.util.\*;

public class uglyNumber {

public static void main(String[] args) {

    System.out.print("Enter the number: ");

    Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

int t=0;

while(n!=1)

{

if(n%5==0)

{

n=n/5;

}

else if(n%3==0)

{

n=n/3;

}

else if(n%2==0)

{

n=n/2;

}

else

{

System.out.println("Not an Ugly Number.");

t=1;

break;

}

}

if(t==0)

{

System.out.println("Ugly Number.");

}

}

}

 20. Write a java program to replace ‘a’ with ‘$’ in the following String “I am always ready to learn although I do not always like being taught.”

public class javachalng{

public static void main(String args[]){

     String s1="I am always ready to learn although I do not always like being taught.";

     String replaceString=s1.replace('a','$');

     System.out.println(replaceString);

}}

Task :javachalng.main()

I $m $lw$ys re$dy to le$rn $lthough I do not $lw$ys like being t$ught.