

# JAVA

## 1.LCM OF DAY INTERVAL/LUNCH TOGETHER/DINNER TOGETHER

INPUT: Enter the day interval of Tony : 4  
Enter the day interval of Potts: 6

OUTPUT: Tony and Potts will have dinner together on 12th day.

```
import java.util.Scanner;
public class lcm {
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.println("Enter the day interval of Sam:");
int n1 = sc.nextInt();
System.out.println("Enter the day interval of Riya:");
int n2 = sc.nextInt();
if(n1<=0 || n2<=0)
{
System.out.println("Given interval is not valid");
return;
}
int lcm;
lcm = (n1 > n2) ? n1 : n2;
while(true) {
if( lcm % n1 == 0 && lcm % n2 == 0 ) {
System.out.printf("Sam and Riya will have their dinner on day "+lcm);
break;
}
++lcm;
}
}
}
```

## ALTERNATE METHOD

```
import java.util.Scanner;
public class Lunchlcm {
public static void main(String[] args)
{
Scanner sc=new Scanner(System.in);
System.out.println("Enter the day interval of Tony");
int n1=sc.nextInt();
System.out.println("Enter the day interval of Potts");
int n2=sc.nextInt();
if(n1<=0 && n2<=0)
{
System.out.println("Given interval is not valid");
return;
}
int a=n1;
int b=n2;
```

```

while(n2>0)
{
    if (n1 > n2)
    {
        n1 = n1 - n2;
    } else
    {
        n2 = n2 - n1;
    }
}
int gcd = n1;
int lcm = (a * b) / gcd;

System.out.println("Tony and Potts will have lunch together on " + lcm + " day");
}
}

```

```

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*****
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```

## 2.SCORE OF REPEATING WORDS/ WORD REPETITION

INPUT: Enter the String: GOOD  
Enter the sentence: GOOD FOOD GOOD LIFE

OUTPUT: Score is 2

```

import java.util.*;
class PrintMessage
{
    public static void main (String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the string");
        String s=sc.next();
        int count=0;
        int sum=2;
        for(int i=0;i<s.length();i++)
        {
            if(Character.isDigit(s.charAt(i)) || Character.isLetter(s.charAt(i)) || s.charAt(i)==' ')
            {
                continue;
            }
            else
            {
                System.out.println(s+" is not valid String");
                return;
            }
        }
        System.out.println("Enter the sentence");
        sc.nextLine();
        String sentence=sc.nextLine();
        String[] w=sentence.split(" ");
        for(int i=0;i<w.length;i++)

```

```

    {
        if(w[i].equalsIgnoreCase(s))
        {
            count++;
            if(count>2)
            {
                sum=sum*2;
            }
        }
    }
    if(count>2)
    {
        System.out.println("Score is "+sum);
    }
    else
    {
        System.out.println("Score is"+count);
    }
}
}

```

### **\*ALTERNATE METHOD**

```

import java.util.Scanner;
public class CountWords {
public static void main(String[] args) {
Scanner in = new Scanner(System.in);
String word, sentence;
int count = 0;
System.out.println("Enter a word:");
word = in.nextLine();
System.out.println("Enter a sentence");
sentence = in.nextLine();

    if (!(word.matches("[a-z]+"))) {
System.out.println("Invalid Input");
return;
}
String words[] = sentence.toLowerCase().split(" ");
for (int i = 0; i < words.length; i++) {
if (word.equals(words[i])) {
count++;
}
}
System.out.println("Score is:" + ((int) Math.pow(2, count - 1)));
}
}
*****
*****
***

```

### **3)BATTERY CAPACITY**

INPUT: Enter battery capacity :1230

Enter charging current value: 400

OUTPUT: 3.69 Hours

```
import java.util.Scanner;
public class Main {
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.println("Enter battery capacity:");
double capacity = sc.nextDouble();
if(!(capacity>=1000 && capacity<=10000)) {
System.out.println("Invalid battery capacity");
return;
}
System.out.println("Enter charging current value:");
double current = sc.nextDouble();
if(!(current>=300 && current<=2100)) {
System.out.println("Invalid output current");
return;
}
double time=0.0f;
time = (capacity/current)*1.2;
System.out.println(String.format("%.2f",time)+" Hours");
}
}
```

```
*****
*****
***
```

#### 4) COMBINE NUMBERS / STUDENTS WHOSE ROLLNO ARE ODD

INPUT: Entr the set of students :5

Enter the roll number :1

3

4

5

6

OUTPUT: 1 3 5

```
import java.util.*;
public class Main
{
public static void main(String[] args) {
System.out.println("Enter the set of students");
Scanner s=new Scanner(System.in);
int setn=s.nextInt();
if(setn<=0)
{
System.out.println(setn+" is an invalid size");
return;
}
}
```

```

System.out.println("Enter the roll number");
int[] rolls=new int[setn];
int oddflag=0;
for(int i=0;i<setn;i++)
{
    rolls[i]=s.nextInt();
    if(rolls[i]<0)
    {
        System.out.println(rolls[i]+" is an invalid roll number");
        return;
    }
    if(rolls[i]%2!=0)
    {
        oddflag=1;
    }
}
if(oddflag==0)
{
    System.out.println("The "+setn+" numbers are not odd");
    return;
}
String str="";
for(int i=0;i<setn;i++)
{
    if(rolls[i]%2!=0)
    {
        str=str+rolls[i];
    }
}
for(int n=0;n<str.length();n++)
    {
        System.out.println(str.charAt(n)+" ");
    }
}
}

```

```

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**

```

### 5) BIKE RENT / CALCULATING BILL AMOUNT

```

INPUT : Enter your name :      Sam
        Enter the time duration: 13
        List of payment options
        1)Visa card
        2)Rupay card
        3)Master card
        Choose an option :      2

```

OUTPUT: Dear Sam your bill amount is 1294.80

```

import java.util.*;
public class Main

```

```

{
public static void main(String[] args) {
Scanner sc=new Scanner(System.in);
System.out.println("Enter your name");
String s=sc.nextLine();double sal=0;double disc=0;
for(int i=0;i<s.length();++i)
{
if(!Character.isLetter(s.charAt(i)))
{
System.out.println("Invalid Name");
return;
}
}
System.out.println("Enter the time duration");
int n=sc.nextInt();int n1;
if(n<=0 || n>24)
{
System.out.println("Invalid duration");
return;
}
System.out.println("List of payment options");
System.out.println("1)Visa card");
System.out.println("2)Rupay card");
System.out.println("3)Master card");
System.out.println("Chosse an option");
while(true)
{
n1=sc.nextInt();
if(n1<0||n1>3)
{
System.out.println("Try again");
}
else
{
break;
}
}
if( n1==1)
{
if(n>=5)
{
sal=120*n;
disc=(sal*0.25);
sal=sal-disc;
}
else
{
sal=n*120;
}
}
if(n1==2)
{
if(n>=5)
{

```

```

    sal=120*n;
    disc=(sal*0.17);
    sal=(120*n)-disc;
}
else
{
    sal=n*120;
}
}
if(n1==3)
{
    sal=n*120;
}
System.out.print("Dear "+s+" your bill amount is ");
System.out.printf("%.2f", sal);
}
}

```

```

*****
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```

## 6) ODD POSITION CHAR WILL BE IN UPPERCASE & EVEN WILL BE LOWERCASE-

INPUT : school

OUTPUT : sChOol

```

import java.util.Scanner;
public class UPLC{
public static void main(String []args){
    Scanner sc = new Scanner(System.in);
    String str = sc.next();
    int strlen = str.length();
    for(int i = 0 ; i < str.length(); i++){
        char ch = str.charAt(i);
        if(!(ch >= 'a' && ch <='z' || ch >= 'A' && ch <='Z' )){
            System.out.println(str+ " is an invalid input");
            return;
        }
    }

    if(strlen >= 5 && strlen <= 20){
        StringBuffer updateString = new StringBuffer();
        char[] charArr = str.toCharArray();
        for(int i = 0 ; i < charArr.length; i++){
            char ch = charArr[i];
            if(i % 2 != 0){
                ch = Character.toUpperCase(ch);
            }
            updateString.append(ch);
        }
        System.out.println(updateString.toString());
    }
    else {

```

```

        System.out.println(str+ " is an invalid Length");
    }
}
}

```

```

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```

## 7) RATING SCORE

INPUT: ENTER JESSON SCORE

1  
2  
3  
4  
8

ENTER JAMES SCORE

0  
2  
6  
5  
6

OUTPUT: JESSON SCORE : 2  
JAMES SCORE : 2

```

import java.util.Scanner;
public class Ratingscore {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter Jesson Score");
        int[] a1 = new int[5];
        int[] a2 = new int[5];
        int f = 0;
        int t = 0;
        int sum = 0;
        int sum1 = 0;
        for (int i = 0; i < 5; i++) {
            a1[i] = sc.nextInt();
            if (a1[i] < 0) {
                f = 1;
                t = a1[i];
                break;
            }
        }
        if (f == 1) {
            System.out.println(t + " is invalid");
        } else {
            System.out.println("Enter James Score");
            for (int j = 0; j < 5; j++) {
                a2[j] = sc.nextInt();
                if (a2[j] < 0) {
                    f = 1;
                    t = a2[j];
                }
            }
        }
    }
}

```



```

        break;
    }
}
if (f == 1) {
    System.out.println(t + " is invalid");
} else {
    for (int k = 0; k < 5; k++) {
        if (a1[k] > a2[k]) {
            sum++;
        }
        if (a1[k] < a2[k]) {
            sum1++;
        }
    }
    System.out.println("Jesson Score");
    System.out.println(sum);
    System.out.println("James Score");
    System.out.println(sum1);
}
}
}
}
}

```

#### **\*\*ALTERNATE METHOD:**

```

import java.util.Scanner;
public class minmax {
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        int jesson=0,james=0,c=0;
        int a[]=new int[5];
        int b[]=new int[5];
        System.out.println("Enter Jesson Score");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
            if(a[i]<0)
            {
                System.out.println("Invalid");
                Runtime.getRuntime().halt(0);
            }
        }
        System.out.println("Enter James Score");
        for(int i=0;i<b.length;i++)
        {
            b[i]=sc.nextInt();
            if(b[i]<0)
            {
                System.out.println("Invalid");
                Runtime.getRuntime().halt(0);
            }
        }
        if(a.length==b.length)
    }
}

```

```

    {
        for(int i=0;i<a.length;i++)
        {
            if(a[i]>b[i])
            {
                jesson++;
            }
            else if(a[i]<b[i])
            {
                james++;
            }
            else if(a[i]==b[i])
            {
                c++;
            }
        }
        System.out.println("Jesson Score: "+jesson);
        System.out.println("James Score: "+james);
    }
    else{
        System.out.println("Length not same");
    }
}
}

```

\*\*\*\*\*  
\*\*\*\*\*

## 8.COUNT OF UPPERCASE AND COUNT OF LOWERCASE & OUTPUT WILL BE IN THE FORM OF (UP-LC)

INPUT : HosTEL

OUTPUT: 4-2=2

```

import java.util.Scanner;

public class ContNext {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the string");
        String str=sc.nextLine();
        int uc=0,lc=0;
        if(str.matches("[A-Za-z ]+")&&str.length()<10) {
            for(int i=0;i<str.length();i++)
            if(Character.isUpperCase(str.charAt(i))) {
                uc++;
            }
            else if(Character.isLowerCase(str.charAt(i))){
                lc++;
            }
            System.out.println(uc-lc);
        }
    }
}

```

```
}
*****
*****
```

### 9) PRODUCT of COUNT of UPPERcase

and LOWERcase letters

INPUT: ABsdEr

OUTPUT: 6 (3\*3)

```
import java.util.Scanner;
public class minmax {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the String");
        String s = sc.nextLine();
        int upper = 0;
        int lower = 0;
        int i;
        if (s.matches("[a-zA-Z]+")) {
            for (i = 0; i < s.length(); i++) {
                char c = s.charAt(i);
                if (c >= 'A' && c <= 'Z') {
                    upper++;
                }
                if (c >= 'a' && c <= 'z') {
                    lower++;
                }
            }
            System.out.println(upper * lower);
        }
        else
        {
            System.out.println("Invalid String");
        }
    }
}
```

```
*****
*****
```

## 10.Count of UPPERcase and LOWERcase and their difference

Enter the String:        ColLEgE  
Count of uppercase is : 4  
Count of lowercase is : 3  
Hence the ans is :        1

```
import java.util.Scanner;
public class MyClass {
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the String ");
        String str = sc.next();
        int strlen = str.length();
```

```

for(int i=0; i < str.length() ; i++)
{ char ch = str.charAt(i);
  if(!(ch >='a' && ch <= 'z' || ch >= 'A' && ch <= 'Z')){
    System.out.println(str + " is an invalid String");
    return;
  }
}

```

```

if(strlen > 0 && strlen <= 10){
  int upper = 0, lower = 0, ans = 0;

  for(int i = 0; i < str.length(); i++)
  {
    char ch = str.charAt(i);
    if (ch >= 'A' && ch <= 'Z')
      upper++;
    else if(ch >= 'a' && ch <= 'z')
      lower++;
  }
  ans = upper - lower;
  System.out.println("count of uppercase is :"+ upper);
  System.out.println("count of lowercase is :"+ lower);
  System.out.println("Hence the ans is :"+ ans);
}
else {
  System.out.println(str + " is an invalid String");
}
}

```

```

*****
*****

```

## 11.PUBLIC DISTRIBUTION

INPUT : OKR

OUTPUT : 90

```

import java.util.*;
public class Main
{
  public static void main(String[] args)
  {
    Scanner in = new Scanner(System.in);
    String str = in.nextLine();
    int l=str.length();
    if(l>5 || l<2)
    {
      System.out.println("Invalid Input");
    }
    else
    {
      int sum=0,flag=0;
      for(int i=0;i<l;i++)
      {

```

```

char c=str.charAt(i);
if(c=='O')
{
    sum=sum+24;
}
else if(c=='K')
{
    sum=sum+36;
}
else if(c=='S')
{
    sum=sum+42;
}
else if(c=='R')
{
    sum=sum+30;
}
else if(c=='W')
{
    sum=sum+44;
}
else
{
    flag=1;
}
}
if(flag==1)
{
    System.out.println("Invalid Input");
}
else
{
    System.out.println(sum);
}
}
}

```

```

*****
*****

```

## 12.LOTTERY TICKETS

INPUT: Enter the Starting range  
23467  
Enter the Ending range  
23477

OUTPUT: 23469  
23472

```

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

```

```

{
int i,c,n,sum,count;
sum=0;count=0;n=0;c=0;i=0;
Scanner sc = new Scanner(System.in);
System.out.println("Enter the Starting range");
int a = sc.nextInt();
String str = Integer.toString(a);
if(str.length()!=5)
{
System.out.println(str + " is an invalid input");
System.exit(0);
}

System.out.println("Enter the Ending range");
int b = sc.nextInt();
String str1 = Integer.toString(b);
if(str1.length()!=5)
{
System.out.println(str1 + "is an invalid input");
System.exit(0);
}

if(a>b)
{
System.out.println(a+" and "+b+" are invalid serial numbers");
System.exit(0);
}

for(i=a;i<=b;i++)
{
n=i;
while(n!=0)
{
c=n%10;
sum=sum+c;
n=n/10;
}
if((sum%3==0)&&((sum/3)%2==0))
{
System.out.println(i + " ");
count++;
}
sum=0;
}
if(count==0)
{
System.out.println("Eligible tickets are not available from "+a+" to "+b);
System.exit(0);
}
}
}

```

```

*****
*****

```

### 13.COFFEE STALL NUMEROLOGY

INPUT : Enter the Staff Name

Coffee Bar

OUTPUT : Coffee Bar satisfies the numerology logic

```
import java.util.*;
public class Main{
    public static void main (String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the Staff Name");
        String name = sc.nextLine();
        int count=0;
        for(int i=0;i<name.length();i++){
            if(Character.isAlphabetic(name.charAt(i)) || name.charAt(i)==' '){
                count++;
            }
        }
        if(count==name.length()){
            String str = name.replace(" ", "");
            int sum=0;
            for(int i=0;i<str.length();i++){
                sum += i;
            }
            if(sum%2==0){
                System.out.println(name+" satisfies the numerology logic");
            }else{
                System.out.println(name+" does not satisfy the numerology logic");
            }
        }else{
            System.out.println("Invalid Input");
        }
    }
}
```

**\*ALTERNATE METHOD USING -matches for same question**

```
import java.util.*;
public class Main{
    public static void main (String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the Staff Name");
        String name = sc.nextLine();
        if(name.matches("[a-zA-Z ]+")){
            String str = name.replace(" ", "");
            int sum=0;
            for(int i=0;i<str.length();i++){
                sum += i;
            }
            if(sum%2==0){
                System.out.println(name+" satisfies the numerology logic");
            }else{
                System.out.println(name+" does not satisfy the numerology logic");
            }
        }else{
            System.out.println("Invalid Input");
        }
    }
}
```



```

        System.out.println(name+" does not satisfy the numerology logic");
    }
    }else{
        System.out.println("Invalid Input");
    }
}
}

```

### **\*ALTERNATE METHOD**

```

import java.util.Scanner;
public class CoffeeHouse {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the Stall Name");
        String name = sc.nextLine();
        if (name.matches("[A-Za-z ]*$")) {
            int sum = 0;
            String fName = name.replaceAll(" ", "");
            for (int i = 0; i < fName.length(); i++)
                sum = sum + i;
            if (sum % 2 == 0) {
                System.out.println(name + " satisfies the numerology logic");
            } else {
                System.out.println(name + " not satisfies the numerology logic");
            }
        } else
            System.out.println("Invalid Input");
    }
}

```

```

*****
*****

```

### **14.ANAGRAM OR TWO WORDS OF SAME LETTER**

INPUT : cat  
act

OUTPUT: Same

```

import java.util.Arrays;
import java.util.Scanner;
public class minmax {
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter sentence 1");
        String s1=sc.next();
        s1=s1.toLowerCase();
        System.out.println("Enter sentence 2");
        String s2=sc.next();
        s2=s2.toLowerCase();
        if(s1.length()!=s2.length())

```

```

    {
        System.out.println("Invalid");
    }
    if(s1.matches("[a-zA-Z]*")){
        char c1[] = s1.toLowerCase().toCharArray();
        char c2[] = s2.toLowerCase().toCharArray();
        Arrays.sort(c1);
        Arrays.sort(c2);
        if (Arrays.equals(c1, c2)) {
            System.out.println(s1 + " and " + s2 + " contain the same characters");
        } else {
            System.out.println(s1 + " and " + s2 + " contain the different characters");
        }
    }
    else
    {
        System.out.println("Invalid");
    }
}
}

```

### ALTERNATE METHOD:

```

import java.util.*;
public class Main{
    public static void main (String[] args) {
        Scanner sc = new Scanner(System.in);
        String first=sc.next();
        String secound=sc.next();
        String word1=Main.checker(first);
        String word2=Main.checker(secound);
        if(word1.equals(word2)){
            System.out.println("Same");
        }else{
            System.out.println("Different");
        }
    }
    public static String checker(String word){
        char arr[]=word.toCharArray();
        Arrays.sort(arr);
        int index=0;
        for(int i=0;i<arr.length;i++){
            int j;
            for(j=0;j<i;j++){
                if(arr[j]==arr[i]){
                    break;
                }
            }
            if(i==j){
                arr[index++]=arr[i];
            }
        }
        char arr1[]=Arrays.copyOf(arr,index);
        String newword= new String(arr1);
    }
}

```

```

        return newword;
    }
}

```

## ALTERNATE METHOD

```

import java.util.*;
public class arraysquare {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int f1=0,f2=0;
        String s1=sc.nextLine();
        char c1[]=s1.toCharArray();
        String s2=sc.nextLine();
        char c2[]=s2.toCharArray();
        for(int i=0;i<c1.length;i++)
        {
            f1=0;
            for(int j=0;j<c2.length;j++)
            {
                if(c1[i]==c2[j])
                {
                    f1=1;
                    break;
                }
            }
            if(f1==0)
            {
                break;
            }
        }
        for(int i=0;i<c2.length;i++)
        {
            f2=0;
            for(int j=0;j<c1.length;j++)
            {
                if(c2[i]==c1[j])
                {
                    f2=1;
                    break;
                }
            }
            if(f2==0)
            {
                break;
            }
        }
        if(f1==1 && f2==1)
        {
            System.out.println("Same Char");
        }
        else{
            System.out.println("Different char");
        }
    }
}

```

```
}  
}
```

```
*****  
*****
```

## 15.SUMMATION OF EVEN NUMBERS IN THE ARRAY

INPUT : Enter array size

4

Enter array elements in 1st array

2

4

6

8

Enter array elements in 2nd array

1

2

5

2

OUTPUT: 0

6

0

10

```
import java.util.*;  
public class Main  
{  
    public static void main(String[] args) {  
        Scanner sc=new Scanner(System.in);  
        System.out.println("Enter array size");  
        int n=sc.nextInt();  
        if(n>=10 || n<1)  
        {  
            System.out.println(n+" is an invalid input");  
            Runtime.getRuntime().halt(0);  
        }  
        int arr1[]=new int[n];  
        int arr2[]=new int[n];  
        int result[]=new int[n];  
        System.out.println("Enter array elements in 1st array");  
        for(int i=0;i<n;i++)  
        {  
            arr1[i]=sc.nextInt();  
        }  
        System.out.println("Enter array elements in 2nd array");  
        for(int i=0;i<n;i++)  
        {  
            arr2[i]=sc.nextInt();  
        }  
        //PROGRAM LOGIC  
        int count=0;  
        for(int i=0;i<n;i++)
```

```

{
    if((arr1[i]%2==0 || arr1[i]==0) && (arr2[i]%2==0 || arr2[i]==0))
    {
        result[i]=arr1[i]+arr2[i];
        count++;
    }
    else
    {
        result[i]=0;
    }
}
if(count==0)
{
    System.out.println("No even number is present in an Array");
}
for(int i=0;i<n;i++)
{
    System.out.println(result[i]);
}
}
}

```

\*\*\*\*\*  
\*\*\*\*\*

## 16.RUNNERS COMPETITION

INPUT :Enter the number of runners

5

Enter the runner details

Robert,9.38

Richard,9.35

Christiano,9.35

Williams,9.36

Vinix,9.35

OUTPUT: Richard

Christiano

Vinix

```

import java.util.*;
public class Main{
    public static void main (String[] args) {
        Scanner sc = new Scanner(System.in);
        sc.useDelimiter("\n");
        System.out.println("Enter the number of runners");
        int n = sc.nextInt();
        if(n<=0 || n>10){
            System.out.println(n+" is an invalid number of runners");
            Runtime.getRuntime().halt(0);
        }
        String temp = "";
        String name[] = new String[n];
    }
}

```

```

float time[] = new float[n];
System.out.println("Enter the runner details");
for(int i=0;i<n;i++){
    temp = sc.next();
    String temparr[] = temp.split(",");
    name[i] = temparr[0];
    time[i] = Float.parseFloat(temparr[1]);
    if(time[i]>12 || time[i]<8){
        System.out.println(time[i]+" is an invalid input");
        Runtime.getRuntime().halt(0);
    }
}
int maxcount = 0;
float maxrep = 0;
for(int i=0;i<n;i++){
    int count = 0;
    for(int j=i+1;j<n;j++){
        if(time[i]==time[j]){
            count++;
        }
    }
    if(count>=maxcount){
        maxcount = count;
        maxrep = time[i];
    }
}
if(maxcount==n){
    System.out.println(n+" runners have same timing");
}
else if(maxcount==0){
    System.out.println("No runners with same time.");
}
else{
    for(int i=0;i<n;i++){
        if(maxrep == time[i]){
            System.out.println(name[i]);
        }
    }
}
}
}

```

**\*\*\*\*ALTERNATE METHOD\*\*\*\***

```

public static void main(String[] args) {
    // TODO code application logic here
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the no of students");
    int n=sc.nextInt();
    if(n>10)
    {
        System.out.println(n+" is an invalid nuber of runners");
        return;
    }
}

```

```

String input;
String name[]=new String[n]; //name array
Double time[]=new Double[n]; //another time array
System.out.println("Enter the details");
for(int i=0;i<n;i++)
{
    input=sc.next();
    String[] a=input.split(","); // a[0] stores name a[1] stores time
    name[i]=a[0]; //string->string
    time[i]=Double.parseDouble(a[1]); //double<-string
    if(time[i]<8 || time[i]>12)
    {
        System.out.println(time[i]+" is an invalid input");
        return;
    }

}

boolean flag = true;

double min=time[0];
int index=0;

for(int i=0;i<n;i++)
{
    if(time[i]<min)
    {
        min=time[i];
        //index=i;
    }

}

if(min!=time[i])
{
    flag=false;
    System.out.println(name[i-1]);
}

}
if (flag) System.out.println(n+" runners have same timing");
}

}
*****
*****

```

## **17.REEDME**

INPUT : Enter the customer name

Abi

Enter the category

History

Enter the quantity of books ordered

2900

OUTPUT : Total cost is 334080.0



```

import java.util.*;
public class Main{
    public static void main (String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the customer name");
        String name = sc.nextLine();
        System.out.println("Enter the category");
        String category = sc.nextLine();
        category = category.toLowerCase();

        if(!category.equals("adventure") && !category.equals("comics") && !category.equals("history") && !category.equals("thriller")){
            System.out.println(category+" is invalid category");
            Runtime.getRuntime().halt(0);
        }
        System.out.println("Enter the quantity of books ordered");
        int quantity = sc.nextInt();
        if(quantity <= 0){
            System.out.println(quantity+" is an invalid quantity");
            Runtime.getRuntime().halt(0);
        }
        int discount = 0;
        int price = 0;
        if(category.equals("adventure")){
            price = 150;
            if(quantity>=1700)
                discount = 5;
        }
        else if(category.equals("comics")){
            price = 230;
            if(quantity>=1950)
                discount = 5;
        }
        else if(category.equals("history")){
            price = 120;
            if(quantity>=2600)
                discount = 4;
        }
        else if(category.equals("thriller") && quantity>=1700){
            price = 190;
            if(quantity>=6300)
                discount = 3;
        }
        float totalcost = (price*quantity) - (price*quantity*discount/100);
        System.out.println("Total cost is "+totalcost);
    }
}

```

```

*****
*****

```

## 18) HARSHAD NUMBER (Sum of digit completely divide that

**number)** For example:  $18 = 1 + 8 = 9$  and in  $18/9$  remainder is 0

INPUT: Enter array size: 5

Enter array elements : 18 14 12 24 13

OUTPUT: 18 12 24

```
import java.util.Scanner;
public class Harshad {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of values");
        int n = sc.nextInt();
        int i;
        System.out.println("Enter the numbers");
        int[] a = new int[n];
        if (n > 0)
        {
            int flag = 0;
            int k = 0;
            for (i = 0; i < n; i++)
            {
                k = sc.nextInt();
                if (k > 9)
                    a[i] = k;
                else
                {
                    flag = 1;
                    break;
                }
            }
        }
        if (flag != 1)
        {
            int c = 0;
            for (i = 0; i < n; i++)
            {
                int x = a[i];
                int sum = 0;
                do {
                    int r = x % 10;
                    sum = sum + r;
                    x = x / 10;
                }
                while (x != 0);
                if (a[i] % sum == 0)
                {
                    c++;
                    System.out.println(a[i]);
                }
            }
        }
        if (c == 0)
```

```
        System.out.println("The " + n + " values are not harshad number");
    }
    else
    System.out.println("Provided " + k + " is not valid");
} else
    System.out.println(n + " is an invalid input");
}
}
```

\*\*\*\*ALTERNATE METHOD\*\*\*\*

```
import java.util.Scanner;
class Main
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number of values");
        int n=sc.nextInt();
        System.out.println("Enter the numbers");
        int a[]=new int[n];
        if(n>0)
        {
            int flag=0;
            int k=0;
            for(int i=0;i<n;i++)
            {
                k=sc.nextInt();
                if(k>9) a[i]=k; else
                {
                    flag=1;
                    break;
                }
            }
            if(flag!=1)
            {
                int c=0;
                for(int i=0;i<n;i++)
                {
                    int x=a[i];
                    int sum=0;
                    do
                    {
                        int r=x%10; sum=sum+r; x=x/10;
                    }while(x!=0);
                    if(a[i]%sum==0)
                    { c++;
                        System.out.println(a[i]);
                    }
                }
                if(c==0)
                    System.out.println("The "+n+" values are not harshad number");
            }else
                System.out.println("Provided "+k+" is not valid");
        }else
            System.out.println(n+" is an invalid input");
    }
}
```

\*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

## 19) VIDEO GAME PLAYER (PS1)

INPUT : Enter the amount

18000

Enter the Video Game Player Type

PS4

OUTPUT: You can buy PS4

```
public class PS {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the amount");
        int amount = sc.nextInt();
        if (amount >= 3000) {
            System.out.println("Enter the Video Game Player Type");
            String type = sc.next();
            if (type.matches("[P][S][1-5]")) {
                if (type.equals("PS1")) {
                    if (amount >= 5000) {
                        System.out.println("You can buy PS1");
                    } else {
                        System.out.println("You need more money to buy a PS1");
                    }
                } else if (type.equals("PS2")) {
                    if (amount >= 7800) {
                        System.out.println("You can buy PS2");
                    } else {
                        System.out.println("You need more money to buy a PS2");
                    }
                } else if (type.equals("PS3")) {
                    if (amount >= 9500) {
                        System.out.println("You can buy PS3");
                    } else {
                        System.out.println("You need more money to buy a PS3");
                    }
                } else if (type.equals("PS4")) {
                    if (amount >= 12000) {
                        System.out.println("You can buy PS4");
                    } else {
                        System.out.println("You need more money to buy a PS4");
                    }
                } else if (type.equals("PS5")) {
                    if (amount >= 15000) {
                        System.out.println("You can buy PS5");
                    } else {
                        System.out.println("You need more money to buy a PS5");
                    }
                }
            } else {
                System.out.println(type + " is Invalid Type");
            }
        }
    }
}
```

```

    }
    } else {
        System.out.println(amount + " is too less");
    }
}
}
}

```

\*\*\*\*\*  
 \*\*\*\*\*  
 \*\*\*\*\*

## 20) ABSOLUTE DIFFERENCE / ALTERNATE SUM DIFFERENCE

INPUT :Enter number

6

Enter values

12

13

6

8

9

7

(((( logic: (12-7=a

13-9=b

6-8=c

a+b+c=ans))))))

OUTPUT 2

3

4

5

5-2=3

4-3=1

So 3+1= 4

\*/

```

import java.util.*;
public class AltDiff {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int sum=0;
        int n=sc.nextInt();
        int a[]=new int[n];
        for(int i=0;i<n;i++)
        {
            a[i]=sc.nextInt();
        }
        for(int i=0;i<n/2;i++)
        {
            sum+=Math.abs(a[i]-a[n-i-1]);
        }
        System.out.println(sum);
    }
}

```

```
*****
*****
*****
```

## 21.CHARACTER ADDITION

```
INPUT : Enter : 3
        Enter the sentences:
        ks436
        Agh73
        7222
```

```
OUTPUT: 222
        240
        0
```

```
import java.util.*;
public class arraysquare{
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int sum=0;
        System.out.println("Enter:");
        int n=sc.nextInt();
        if(n<=0)
        {
            System.out.println("The number of sentences "+n+" is invalid");
            return;
        }
        System.out.println("Enter the sentences:");
        String str[]=new String[n];
        for(int i=0;i<n;i++)
        {
            str[i]=sc.next();
        }
        for(int i=0;i<str.length;i++)
        {
            String s=str[i].replaceAll("[0-9]","");
            for(int j=0;j<s.length();j++)
            {
                char c=s.charAt(j);
                int ascii=c;
                sum+=ascii;
            }
            System.out.println(sum);
            sum=0;
        }
    }
}
```

```
*****
*****
```

## 22. REVERSE FIRST HALF/MIDDLE LETTER of the string if string length is ODD

Input:

if length of string is even, the reverse the string:

Ex: Food

Output:

dooF

Input:

If length of the string is odd, then find the middle char and then ,reverse the string till mid char and print remain characters as it is.

Ex: Samsung

Output:

maSsung

```
package FinalAss;
import java.util.*;
public class MidLett {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        String str=sc.nextLine();//rahul
        int len=str.length();
        if(len%2==0)
        {
            StringBuilder sb=new StringBuilder(str);
            sb.reverse();
            System.out.println(sb.toString());
        }
        else if(len%2!=0)
        {
            System.out.println("Length of string is " +len);
            int mid=len/2;
            mid++;
            System.out.println("Substring of string is "+mid);
            String substr=str.substring(0,mid-1);
            String remainSub=str.substring(mid-1,len);
            StringBuilder sb=new StringBuilder(substr);
            sb.reverse();
            System.out.println(sb.toString()+remainSub);
        }
    }
}
```

### ALTERNATE METHOD:::

```
import java.util.Scanner;
import java.util.regex.Pattern;
public class minmax {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        String str=sc.nextLine();//rahul
```



```

if(!Pattern.matches("[A-Za-z]+",str))
{
    System.out.println(str+" is not a valid string");
    return;
}
else if(str.length()<2)
{
    System.out.println("Size of string "+str.length()+" is too small");
    return;
}
int len=str.length();
if(len%2==0)
{
    StringBuilder sb=new StringBuilder(str);
    sb.reverse();
    System.out.println(sb.toString());
}
else if(len%2!=0)
{
    int mid=len/2;
    String substr=str.substring(0,mid);
    String remainSub=str.substring(mid,len);
    StringBuilder sb=new StringBuilder(substr);
    sb.reverse();
    System.out.println(sb.toString()+remainSub);
}
}
}

```

```

*****
*****
*****

```

## 23 .ONLINE SHOPPING

```

input:
enter the product
laptop
Actual price
45000
exchange?
yes
bill amount:
27000.00

```

```

import java.util.*;
public class arraysquare {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the Product:");
        String prod=sc.nextLine();
        int ed=0,pd=0;
        if(prod.equals("Mobile"))

```

```

    {
        ed=15;
        pd=15;
    }
else if(prod.equals("Laptop"))
{
    ed=20;
    pd=20;
}
else if(prod.equals("Headset"))
{
    ed=0;
    pd=10;
}
else if(prod.equals("Charger"))
{
    ed=0;
    pd=5;
}
else{
    System.out.println("Not available");
    return;
}
System.out.println("Enter the actual Price: ");
int price=sc.nextInt();
if(price<100)
{
    System.out.println("Invalid Price");
    return;
}
System.out.println("Do u want to Exchange?");
String exc=sc.next();
if(exc.equals("Yes") || exc.equals("yes"))
{
    double ap=price-(price*pd)/100;
    double ev=(price*ed)/100;
    double total=ap-ev;
    System.out.printf("Total=%.2f",total);
}
else if(exc.equals("No") || exc.equals("no"))
{
    double total=price-(price*pd)/100;
    System.out.printf("Total=%.2f",total);
}
else
{
    System.out.println("Invalid Option");
}
}
}

```

```

*****
*****

```

## 24 .OPERATOR FOUND

input:

45

23

22

output

45-23=22

```
import java.util.*;
public class arraysquare {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter n1 and n2:");
        int n1=sc.nextInt();
        if(n1>0)
        {
            int n2=sc.nextInt();
            if(n2>0)
            {
                System.out.println("Enter n3:");
                int n3=sc.nextInt();
                if(n3>0)
                {
                    if(n1+n2==n3)
                    {
                        System.out.println(n1+"+"+n2+"="+n3);
                    }
                    else if(n1-n2==n3)
                    {
                        System.out.println(n1+"-"+n2+"="+n3);
                    }
                    else if(n1*n2==n3)
                    {
                        System.out.println(n1+"*"+n2+"="+n3);
                    }
                    else if(n1/n2==n3)
                    {
                        System.out.println(n1+"/"+n2+"="+n3);
                    }
                    else
                    {
                        System.out.println(n3+" is an invalid answer");
                    }
                }
            }
        }
        else{
            System.out.println("Invalid");
        }
    }
    else{
        System.out.println("Invalid");
    }
}
```

```

    }
}
else{
    System.out.println("Invalid");
}
}
}
}

```

**\*\*\*ALNERNATE METHOD\*\*\***

```

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

        System.out.println("Enter the n1 and n2");
        int n1 = sc.nextInt();
        if(n1<=0){
            System.out.println(n1+" is an invalid number");
            return;
        }
        int n2 = sc.nextInt();
        if(n2<0){
            System.out.println(n2+" is an invalid number");
            return;
        }
        boolean b = false;
        System.out.println("Function answer n3");
        int n3 = sc.nextInt();

        if((n1+n2)==n3){
            System.out.println(n1+"+"+n2+"="+n3);
            b=true;
        }
        if((n1-n2)==n3){
            System.out.println(n1+"-"+n2+"="+n3);
            b=true;
        }
        if((n1*n2)==n3){
            System.out.println(n1+"*"+n2+"="+n3);
            b=true;
        }
        if((n1/n2)==n3){
            System.out.println(n1+"/"+n2+"="+n3);
            b=true;
        }
        if(b== false){
            System.out.println(n3+" is an invalid number");
        }
    }
}

```

\*\*\*\*\*  
\*\*\*\*\*

\*\*\*\*

## 25 .PRODUCT EQUAL SUM

INPUT : Enter the array size

4

Enter the elements of the first array

12

35

56

34

Enter the elements of the second array

261

195

112

813

OUTPUT: 35,195

34,813

```
import java.util.*;
public class arraysquare
{
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array size");
        int n=sc.nextInt();
        if(n<=0)
        {
            System.out.println("Invalid array size");
            return;
        }
        int a[]=new int[n];
        System.out.println("Enter the elements of the firstarray");
        for(int i=0;i<n;i++)
        {
            a[i]=sc.nextInt();
        }
        System.out.println("Enter the elements of the second array");
        int b[]=new int[n];
        for(int i=0;i<n;i++)
        {
```

```

    b[i]=sc.nextInt();
}
int x[]=new int[n];
int y[]=new int[n];
for(int i=0;i<n;i++)
{
    int c=a[i];
    int prod=1;
    while(c!=0)
    {
        prod*=(c%10);
        c/=10;
    }
    x[i]=prod;
    prod=0;
}
for(int i=0;i<n;i++)
{
    int s=b[i];
    int sum=0;
    while(s!=0)
    {
        sum+=(s%10);
        s/=10;
    }
    y[i]=sum;
    sum=0;
}
for(int i=0;i<n;i++)
{
    if(x[i]==y[i])
    {
        System.out.println(a[i]+" "+b[i]);
    }
}
}
}

```

```

*****
*****
*

```

## 26. UNIQUE CHAR

input:  
Life is inherently risky

output:  
life is ihrtly risky

```

package FinalAss;
import java.util.*;

```

```

public class nonuniquetwo {
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        String sentence = sc.nextLine();
        String[] words = sentence.split(" ");
        for(String word : words)
        {
            System.out.print(getUnique(word) + " ");
        }
        sc.close();
    }
    public static String getUnique(String str)
    {
        StringBuffer sb = new StringBuffer();
        for(int i = 0; i<str.length(); i++)
        {
            if(countFrequency(str.charAt(i), str) == 1)
            {
                sb.append(str.charAt(i));
            }
        }
        String result = sb.toString();
        return result;
    }
    public static int countFrequency(char c, String str)
    {
        int count = 0 ;
        for(int i = 0; i<str.length(); i++)
        {
            if(str.charAt(i) == c)
            {
                count++;
            }
        }
        return count;
    }
}

```

**\*\*\*ALTERNATE METHOD\*\*\*\*\***

```

import java.util.*;
public class Main
{
    public static void main(String[] args)
    {
        System.out.println("Enter the String");
        Scanner sc=new Scanner(System. in);
        String str=sc.nextLine();
        String output="";
        String[] word=str.split(" ");
        for(int i=0;i<word.length;i++)
        {
            for(int j=0;j<word[i].length();j++)

```

```
{
  int count=0;
  char c=word[i].charAt(j);
  for(int k=0;k<word[i].length();k++)
  {
    if(c==word[i].charAt(k))
      count++;
  }
  if(count==1)
  {
    output+=Character.toLowerCase(c);
  }
}
output+=" ";
}
System.out.println(output);
}
}
```

```
*****
*****
*
```

## 27. BOX SIZE

INPUT : Enter the box size

6

Enter the numbers

5

55

3

59

42

8



OUTPUT: 32 is even its a valid box

```
import java.util.Scanner;
public class minmax {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the box size");
        int a=sc.nextInt();
        if(a<=0)
        {
            System.out.println(a+" is an invalid box size");
            return;
        }
        int b[]=new int[a];
        int c=0,sum=0,temp=0;
        System.out.println("Enter the numbers");
        for(int i=0;i<a;i++)
        {
            b[i]=sc.nextInt();
            if(b[i]<=0)
            {
                System.out.println(b[i]+" is an invalid input");
                return;
            }
        }
        for(int i=0;i<a;i++)
        {
            c=b[i]%10;
            sum+=c;
            c=0;
        }
        if(sum%2==0)
        {
            System.out.println(sum+" is even its a valid box");
            return;
        }
        else
        {
            System.out.println(sum+" is odd its an invalid box");
            return;
        }
    }
}
```

\*\*\*\*ALTERNATE METHOD\*\*\*\*\*

Box consists of n numbers and  $n > 0$

Enter the numbers and numbers should be greater than 0 and add all the last digits of the numbers.If the sum is even print valid box else invalid box

Input:

Enter size:5

Enter numbers:

2

34  
456  
67  
123

22 is even it's a valid box

Explanation:

$22=(2+4+6+7+3)$

Similarly for invalid box also

```
public class BoxGame {  
  
    public static void main(String[] args) {  
        Scanner sc = new Scanner(System.in);  
        System.out.println("Enter the box size");  
        int size = sc.nextInt();  
        int n=0;  
        int sum=0;  
        if(size<=0) {  
            System.out.println(size+" is an invalid box size");  
            return;  
        } else {  
            System.out.println("Enter the numbers");  
            int [] arr = new int [size];  
            for(int i=0;i<size;i++) {  
                arr[i] = sc.nextInt();  
            }  
            for(int i=0;i<size;i++) {  
                if(arr[i]<=0) {  
                    System.out.println(arr[i]+" is an invalid input");  
                    return;  
                }  
            }  
            for(int i=0;i<size;i++) {  
                n = arr[i]%10;  
                sum = sum+n;  
            }  
            if(sum%2==0) {  
                System.out.println(sum+" is even its a valid box");  
            }else {  
                System.out.println(sum+" is odd its an invalid box");  
            }  
        }  
    }  
}
```

```
}  
*****  
*****  
.....  
.....
```

## 28. ORDER IDENTIFICATION:(check where elements are in ascending

**order)** INPUT : Enter the array size : 5

Enter the elements: 32

44

55

66

77

OUTPUT : 32 44 55 66 77 are in ascending order

```
import java.util.Arrays;
```

```
import java.util.Scanner;
```

```
public class orderidentification {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array size");
        int a=sc.nextInt();
        if(a<2 || a>10)
        {
            System.out.println(a+" is not a valid array size");
            return;
        }
        int b[]=new int[a];
        int count=0;
        System.out.println("Enter the elements");
        for(int i=0;i<a;i++)
        {
            b[i]=sc.nextInt();
        }
        int d[]= Arrays.copyOf(b,b.length);
        Arrays.sort(d);

        if(Arrays.equals(b,d))
        {
            count++;
        }
        if(count>0)
        {
            for(int i=0;i<b.length;i++)
            {
                System.out.print(b[i]+" ");

            }
            System.out.print("are in ascending order");
            return;
        }
        else
        {
            for(int i=0;i<a;i++)
```

```

    {
        System.out.print(b[i]+" ");
    }
    System.out.print("are not in ascending order");
    return;
}
}

```

\*\*\*ALTERNATE METHOD\*\*\*

```

public class ascendingDesceding {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter array size: ");
        int n = sc.nextInt();
        int[] arr = new int[n];
        int[] temp = new int[n];
        if (n < 2 || n > 10) {
            System.out.println("Invalid size");
            return;
        }
        for (int i = 0; i < n; i++) {
            arr[i] = sc.nextInt();
            temp[i]=arr[i];          //store the array elements in temp array for comaparison later
        }
        Arrays.sort(arr);          //sort the original array
        int count=0;
        for(int i=0;i<n;i++) {
            if(arr[i]==temp[i]){          //checking if elements of sorted array is equal to
temp array
                count++;
            } else {
                count=0;
                break;
            }
        }
        if(count!=0) {
            System.out.println("All elements are in ascending order");
        } else {
            System.out.println("Elements are not in ascending order");
        }
    }
}

```

```

*****
*****
*****

```

## 29) DATE ,MONTH AND

YEAR INPUT:13081995

OUTPUT: date: 13  
month: 08  
year: 1998

```
import java.util.Scanner;
public class minmax {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        String str=sc.nextLine();
        int n=str.length();
        for(int i=0;i<str.length() ;i++)
        {
            if(!(str.charAt(i)>='0' && str.charAt(i)<='9'))
            {
                System.out.println("Invalid input");
                return;
            }
            if(n!=8)
            {
                System.out.println("Enter valid date");
                return;
            }
        }
        String date=str.substring(0,2);
        String mon=str.substring(2,4);
        String year=str.substring(4,8);

        System.out.println("date:"+date);
        System.out.println("Month:"+mon);
        System.out.print("Year:"+year);

    }
}
```

```
*****
*****
*
```

## 30) MEGA MART CUSTOMER IDENTIFICATION(String and SUBSTRING)

```
import java.util.*;
public class arraysquare{
    public static void main (String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the customer id");
        String cid = sc.next();
        String shop = cid.substring(0,4);
```

```

//System.out.println("shop");
if(!shop.equals("Mega")){
    System.out.println("Invalid Shop Name");
    Runtime.getRuntime().halt(0);
}
String type = cid.substring(4,cid.length()-3);
//System.out.println(type);
if(!type.equals("Silver") && !type.equals("Gold") && !type.equals("Platinum")){
    System.out.println("Invalid Customer Type");
    Runtime.getRuntime().halt(0);
}
int mid = Integer.parseInt(cid.substring(cid.length()-3,cid.length()));
//System.out.println(mid);
if(mid<=99 || mid>=1000){
    System.out.println("Invalid Member id");
    Runtime.getRuntime().halt(0);
}
System.out.println("Welcome Mega Mart "+type+" Customer");
}
}

```

\*\*\*\*\*  
\*\*\*\*\*

### 31) MALE AND FEMALE COUNT

INPUT: MmFMff  
OUTPUT: 3 MALE  
3 FEMALE

```

import java.util.Scanner;
import java.util.regex.*;
public class minmax {
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String s=sc.nextLine();
        int count1=0;
        int count2=0;
        if(Pattern.matches("[MmFf ]+",s)){
            for (int i = 0; i < s.length(); i++) {
                if (s.charAt(i) == 'M' || s.charAt(i) == 'm') {
                    count1++;
                } else if (s.charAt(i) == 'F' || s.charAt(i) == 'f') {
                    count2++;
                }
            }
            System.out.println(count1 + " Male");
            System.out.println(count2 + " Female");
        }
        else
        {
            System.out.println("Invalid Input");
        }
    }
}

```

```

    }
}
*****
*****
***

```

### 32) RAINFALL

INPUT: Enter the length of the roof in meters: 4  
 Enter the breadth of the roof in meters: 3  
 Enter the rainfall level: 3

OUTPUT: 360.00 Litres

```

import java.util.Scanner;
public class minmax {
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the length of the roof in meters");
        double l=sc.nextDouble();
        if(l<=0)
        {
            System.out.println("Invalid Length");
            return;
        }
        System.out.println("Enter the breadth of the roof in meters");
        double b=sc.nextDouble();
        if(b<=0)
        {
            System.out.println("Invalid breadth");
            return;
        }
        System.out.println("Enter the rainfall level");
        double r=sc.nextDouble();
        if(r<=0)
        {
            System.out.println("Invalid rainfall");
            return;
        }
        double h;
        h=(l*b) *(r*10);
        System.out.println(String.format("%.2f",h)+"Litres");
    }
}

```

```

*****
*****

```

### 33) NUMEROLOGY NAME CHECKING

```

import java.util.*;
import java.util.regex.Pattern;

public class arraysquare{
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);

```

```
System.out.println("Enter the name");
String a=sc.next();
if(!Pattern.matches("[A-Za-z]+",a))
{
    System.out.println(a+" is an Invalid name");
    return;
}
int sum=0;
char b[]=a.toCharArray();
for(int i=0;i<b.length;i++)
{
    if(b[i]=='A'||b[i]=='a')
    {
        sum+=1;
    }
    else if(b[i]=='B'||b[i]=='b')
    {
        sum+=2;
    }
    else if(b[i]=='C'||b[i]=='c')
    {
        sum+=3;
    }
    else if(b[i]=='D'||b[i]=='d')
    {
        sum+=4;
    }
    else if(b[i]=='E'||b[i]=='e')
    {
        sum+=5;
    }
    else if(b[i]=='F'||b[i]=='f')
    {
        sum+=6;
    }
    else if(b[i]=='G'||b[i]=='g')
    {
        sum+=7;
    }
    else if(b[i]=='H'||b[i]=='h')
    {
        sum+=8;
    }
    else if(b[i]=='I'||b[i]=='i')
    {
        sum+=9;
    }
    else if(b[i]=='J'||b[i]=='j')
    {
        sum+=10;
    }
    else if(b[i]=='K'||b[i]=='k')
    {
        sum+=11;
    }
}
```



```
}
else if(b[i]=='L'||b[i]=='l')
{
    sum+=12;
}
else if(b[i]=='M'||b[i]=='m')
{
    sum+=13;
}
if(b[i]=='N'||b[i]=='n')
{
    sum+=14;
}
if(b[i]=='O'||b[i]=='o')
{
    sum+=15;
}
if(b[i]=='P'||b[i]=='p')
{
    sum+=16;
}
if(b[i]=='Q'||b[i]=='q')
{
    sum+=17;
}
if(b[i]=='R'||b[i]=='r')
{
    sum+=18;
}
if(b[i]=='S'||b[i]=='s')
{
    sum+=19;
}
if(b[i]=='T'||b[i]=='t')
{
    sum+=20;
}
if(b[i]=='U'||b[i]=='u')
{
    sum+=21;
}
if(b[i]=='V'||b[i]=='v')
{
    sum+=22;
}
if(b[i]=='W'||b[i]=='w')
{
    sum+=23;
}
if(b[i]=='X'||b[i]=='x')
{
    sum+=24;
}
if(b[i]=='Y'||b[i]=='y')
```

```

    {
        sum+=25;
    }
    if(b[i]=='Z'||b[i]=='z')
    {
        sum+=26;
    }
}
System.out.println(sum);
if(sum%3==0 && sum%2==0)
{
    System.out.println(a+" is a numerology name");
}
else
{
    System.out.println(a+" is not a numerology name");
}
}
}

```

\*\*\*\*\*

### 34) OMR

```

import java.util.Scanner;
public class arraysquare{
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int i;
        System.out.println("Enter the No of questions");
        int a=sc.nextInt();
        if(a<0)
        {
            System.out.println("Invalid Number");
            return;
        }
        int count=0;
        int mark=0;
        char b[]=new char[a];
        System.out.println("Enter the answer key");
        for (i=0;i<a;i++) {
            b[i] = sc.next().charAt(0);

            if ((b[i] >= 'a' && b[i] <= 'e') || (b[i] > 'E')) {
                System.out.println("Invalid Answers");
                return;
            }
        }
        char c[]=new char[a];
        System.out.println("Enter the student answers");
        for (i=0;i<a;i++)
        {
            c[i]=sc.next().charAt(0);

```

```

        if ((c[i] >= 'a' && c[i] <= 'e') || (b[i] > 'E')) {
            System.out.println("Invalid Answers");
            return;
        }
    }

    for(i=0;i<a;i++)
    {
        if(b[i]==c[i])
        {
            count++;
        }
    }
    if(count>0)
        System.out.println("Correct answers are "+count);
    mark=(count*100)/a;
    if(count<1)
        System.out.println("All answers are wrong");
    System.out.println("Mark is "+mark);

}
}

```

**\*\*\*\*ALTERNATE METHOD\*\*\*\***

```

import java.util.*;
public class OMREvaluation {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the No of questions");
        int no = sc.nextInt();
        if (no <= 0) {
            System.out.println("Invalid Number");
            return;
        } else {
            char anskey[] = new char[no];
            System.out.println("Enter the answer key");
            for (int i = 0; i < no; i++) {
                char x = sc.next().charAt(0);
                if (x >= 'A' && x <= 'E')
                    anskey[i] = x;
                else {
                    System.out.println("Invalid Answers");
                    return;
                }
            }
            char studanskey[] = new char[no];
            System.out.println("Enter the student answers");
            for (int i = 0; i < no; i++) {
                char y = sc.next().charAt(0);
                if (y >= 'A' && y <= 'E')
                    studanskey[i] = y;
                else {
                    System.out.println("Invalid Answers");
                }
            }
        }
    }
}

```

```

        return;
    }
}
int count = 0;
for (int i = 0; i < no; i++) {
    if (anskey[i] == studanskey[i])
        count++;
}
if (count == 0)
    System.out.println("All answers are wrong \nMark is 0");
else {
    System.out.println("Correct answers are " + count);
    System.out.println("Mark is " + ((count * 100) / no));
}
}
}
}
}

```

```

*****
*****

```

### 35)MULTIPLY WITH POSITION

INPUT:

Enter the array size

5

Enter the elements

12

3

7

9

4

Sample Output:

12

6

21

36

20

Logic:

12\*1=12

3\*2=6

7\*3=21

9\*4=36

4\*5=20

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

```
public class Main
```

```
{
```

```
    public static void main(String[] args)
```

```
    {
```

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

```

System.out.println("Enter the array size:");
int n=sc.nextInt();
int res=0;
if(n<1 || n>10)
{
    System.out.println("Invalid Array Size");
    return;
}
int a[]=new int[n];
for(int i=0;i<n;i++)
{
    a[i]=sc.nextInt();
}

for(int i=0;i<n;i++)
{
    res=a[i]*(i+1);
    System.out.println(res);
}
}
}

```

```

*****
*****

```

### 36) CAR PARKING

Sample Input:

Enter the car number  
ap 37 1498

Sample Output

Park the car in 3<sup>rd</sup> floor

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

```

public class CarPrking {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the car number");
        String num = sc.nextLine();
        if (num.length() != 10) {
            System.out.println("Invlid State Code");
            return;
        }
        String floor;
        String code = num.substring(0, 2);
        if (code.equals("TN")) {
            floor = "ground";
        } else if (code.equals("KA")) {
            floor = "1st";
        } else if (code.equals("KL")) {
            floor = "2st";
        } else if (code.equals("AP")) {
            floor = "3st";
        }
    }
}

```

```

    } else {
        System.out.println("Invalid State Code");
        return;
    }
    System.out.println("Park the car in " + floor + " floor");
}
}

```

#### ALTERNATE METHOD:

```

import java.util.*;
public class PrintMessage{

public static void main(String args[])
{
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter the car no");
    String s=sc.nextLine();
    if(s.length()==10)
    {
        String arr[]=s.split(" ");
        if(arr[0].equals("TN"))
            System.out.println("Park the car on ground floor");
        else if(arr[0].equals("KA"))
            System.out.println("Park the car on 1st floor");
        else if(arr[0].equals("KL"))
            System.out.println("Park the car on 2nd floor");
        else if(arr[0].equals("AP"))
            System.out.println("Park the car on 3rd floor");
        else
            System.out.println("Invalid state code");
    }
    else
    {
        System.out.println("Invalid state code");
    }
}
}

```

#### 37) DIGIT COUNT

Sample Input:

Enter the number

56164

Enter the digit

6

Sample output

6 appears in 56164 is 2

Explanation:

Digit 6 appears 2 times in the number 56164

```
package accenture;
```

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

```
public class digitcount {
```

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

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

```
        int count=0;
```

```
        System.out.println("Enter the number:");
```

```
        int n=sc.nextInt();
```

```
        String str=String.valueOf(n);
```

```
        if(n>0)
```

```
        {
```

```
            System.out.println("Enter the digit:");
```

```
            char d=sc.next().charAt(0);
```

```
            char ch[]=str.toCharArray();
```

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

```
            {
```

```
                if(ch[i]==d)
```

```
                {
```

```
                    count++;
```

```
                }
```

```
            }
```

```
            if(count>1)
```

```
            {
```

```
                System.out.println(d+" appears "+n+" is "+count);
```

```
            }
```

```
        }
```

```
    }
```

```
}
```

### 38) WORD FINDING (repeated words)

Sample input:

Enter the number of words

5

Enter the words in set1:

good  
bad  
hello  
Nothing  
North

Enter the words in set2:

Bad  
world  
word  
north  
hello

```
package practice;
import java.util.*;
public class RepeatedWords {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of words");
        int n = sc.nextInt();
        if(n<=0){
            System.out.println(n+" is less than the desired limit");
            return;
        }

        String set1[] = new String[n];
        String set2[] = new String[n];
        System.out.println("Enter the words in set1:");
        for(int i = 0;i<n;i++){
            set1[i] = sc.next().toLowerCase();
        }
        System.out.println("Enter the words in set2:");
        for(int i = 0;i<n;i++){
            set2[i] = sc.next().toLowerCase();
        }
        String res[] = new String[n];
        int k = 0;
        for(int i = 0;i<n;i++){
            int flag = 0;
            for(int j = 0;j<n;j++){
                if(set1[i].equals(set2[j])){
                    flag = 1;
                    break;
                }
            }
            if(flag != 1){
                res[k++] = set1[i];
            }
        }
        /*for(int i = 0;i<n;i++){
```



```

        if(set1[i] == set2[i]){
            continue;
        }
        else{
            res[k++] = set1[i];
        }
    }*/
    System.out.println("The uncommon words are:");
    for(int i = 0;i<k;i++){
        System.out.println(res[i]);
    }
}

```

```

}
*****
*****

```

### 39) SUM OF INTEGERS AT EVEN OR ODD PLACES

Enter size: 5  
Enter numbers:  
123(1+3=4)  
2536(5+6=11)  
2(2)  
57(7)  
76542(7+5+2=14)

Output:  
38(4+11+2+7+14)

```

import java.util.*;
public class oddevenindex {
    public static void main(String[] args)
    {
        Scanner sc = new Scanner (System.in);
        System.out.println("Enter the size of the array: ");
        int n = Integer.parseInt(sc.nextLine());
        String[] arr = new String[n];
        int[] fin = new int[n];
        System.out.println("Enter the elements of the array: ");
        for(int i=0;i<n;i++)
        {
            arr[i] = sc.nextLine();
        }
        int sum = 0;
        int total =0;
        if(n%2!=0)
        {
            for(int i=0;i<arr.length;i++) {
                String num = arr[i];
                char[] digi = num.toCharArray();
                sum = 0;
                if (digi.length % 2 == 0) {
                    for (int j = 1; j < digi.length; j += 2) {
                        char x = digi[j];

```

```

        sum = sum + Integer.parseInt(String.valueOf(x));
    }
    fin[i] = sum;
}
else
{
    for (int j = 0; j < digi.length; j += 2) {
        char x = digi[j];
        sum = sum + Integer.parseInt(String.valueOf(x));
    }
    fin[i] = sum;

}
}
for(int x: fin)
    total +=x;
}
else{
for(int i=0;i<arr.length;i++) {
    String num = arr[i];
    char[] digi = num.toCharArray();
    sum = 0;
    if (digi.length % 2 == 0) {
        for (int j = 1; j < digi.length; j += 2) {
            char x = digi[j];
            sum = sum + Integer.parseInt(String.valueOf(x));
        }
        fin[i] = sum;
    }
    else
    {
        for (int j = 0; j < digi.length; j += 2) {
            char x = digi[j];
            sum = sum + Integer.parseInt(String.valueOf(x));
        }
        fin[i] = sum;

    }
}
}
for(int x: fin)
    total +=x;
}

```

```

System.out.println("Output: "+total);

```

```

}
}

```

\*\*\*\*\*ALTERNATE METHOD\*\*\*\*\*

```

package practice;
import java.util.*;
public class SumOfEvenOrOdd {

```

```

public static void main(String[] args) {
    // TODO Auto-generated method stub
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter the size");
    int n = sc.nextInt();
    if(n<=0){
        System.out.println("Invalid size");
        return;
    }
    System.out.println("Enter the elements:");
    int sum = 0;
    String str[] = new String[n];
    for(int i=0;i<n;i++){
        str[i] = sc.next();
    }
    for(int i = 0;i<n;i++){
        String s = str[i];
        if(s.length()%2 == 0){
            for(int j = 1;j<s.length();j+=2){
                sum+=Integer.parseInt(s.substring(j,j+1));
            }
        }else{
            for(int j = 0;j<s.length();j+=2){
                sum+=Integer.parseInt(s.substring(j,j+1));
            }
        }
    }
    System.out.println(sum);
}
}

```

```

}
*****
*****

```

#### 40) SUM OF EVEN ELEMENTS

Here, size of the array should be taken as input, and it should be between 1 and 10 (inclusive)

If it is not in 1 and 10, print it as "invalid"

Now, by the comparing the values at the same indices of both the arrays, if both values are even, then print the sum of the two values, otherwise print "0".

Before performing operation, make sure if no even element is present in both the arrays, then print it as "There are no even elements in both the arrays", otherwise perform the above operation.

For example, see the following inputs and outputs:

1. Sample input:

Enter the size of array: 3

Enter the elements in first array:

2

3

4

Enter the elements in second array:

1

5

8

Sample output:

0  
0  
12

2. Enter the size of array: 3

Enter the elements in first array:

5  
3  
1

Enter the elements in second array:

1  
5  
9

Sample output:

There are no even elements in both the arrays

3. Sample input:

Enter the size of array: 1

Enter the elements in first array:

5

Enter the elements in second array:

1

Sample output:

There are no even elements in both the arrays

```
package practice;
```

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

```
public class SumOfEvenElements {
```

```
    public static void main(String[] args) {  
        // TODO Auto-generated method stub  
        Scanner sc = new Scanner(System.in);  
        System.out.println("Enter the size of the array:");  
        int n = sc.nextInt();  
        if(n<=0 || n>10){  
            System.out.println("Invalid");  
            return;  
        }  
        System.out.println("Enter the elements in the first array:");  
        int arr1[] = new int[n];  
        for(int i = 0;i<n;i++)  
            arr1[i] = sc.nextInt();  
        System.out.println("Enter the elements in the second array:");  
        int arr2[] = new int[n];  
        for(int i = 0;i<n;i++)  
            arr2[i] = sc.nextInt();  
        int count = 0;  
        for(int i = 0;i<n;i++){  
            if(arr1[i]%2 !=0 && arr2[i]%2 != 0){  
                count++;  
            }  
        }  
        if(count == n){  
            System.out.println("There are no even elements in both arrays:");  
            return;  
        }  
    }  
}
```



```
        System.out.println("Invalid String");
    }
}
```

```
}
*****
*****
```

## 42) LARGEST SORTED SUBSTRING FROM INPUT STRING

Find longest sorted substring from input string..

Input : abczgdpqrstug

Output: pqrstu

\*/

```
import java.util.*;
public class Main
{
    public static void main (String[] args)
    {
        Scanner sc=new Scanner(System.in);
        String s=sc.next();
        int firstindex=0,lastindex=0,length=0;
        for(int i=0;i<s.length();i++)
        {
            int asci=s.charAt(i);
            int count=1;
            for(int j=i+1;j<s.length();j++)
            {
                if(s.charAt(j)==++asci)
                {
                    count++;
                    continue;
                }
                else
                {
                    if(count>length)
                    {
                        firstindex=i;
                        lastindex=j;
                        length=count;
                        break;
                    }
                }
            }
        }
        System.out.println(s.substring(firstindex,lastindex));
    }
}
```

```
*****
*****
```

## 43) NON-UNIQUE ELIMINATION

```
package com.company;
```

```

import java.util.Scanner;

public class NonUniqueElimination {
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String name=sc.nextLine(),abc="";
        int count=0;
        for(int i=0;i<name.length();i++)
        {
            for(int j=1;j<name.length()-1;j++)
            {
                if(name.charAt(i)==name.charAt(j))
                {
                    name=name.replace(String.valueOf(name.charAt(j)), "");
                    count+=1;
                }
            }
        }
        if(count==0) {
            System.out.println("All are unique character");
            return;
        }
        else {
            System.out.println(name);
        }
    }
}
*****
*****
**

```

#### 44) THEATER SEAT DETAILS

Sample input 1:  
A2S3D06D13

Sample output 2:  
Seat Number  
D13  
D14  
D15  
D16  
D17

Sample input 2:  
A2S3D02C01

Sample Output2:  
Seat Number  
C1  
C2

```

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

```

```

Scanner sc = new Scanner(System.in);

String str = sc.next();
if(str.length()!=10){
    System.out.println("Invalid Input");
    return;
}

if(Pattern.matches("[0-9]+",str.substring(5,7)) && Integer.parseInt(str.substring(5,7))>=1
&& Integer.parseInt(str.substring(5,7))<=10){
    int seatnumber = Integer.parseInt(str.substring(5,7));
    String eightletter = str.substring(7,8);
    if(Pattern.matches("[A-Za-z]",eightletter) && Pattern.matches("[0-9]+",str.substring(8,10))){
        int n = Integer.parseInt(str.substring(8,10));
        for(int i=0;i<seatnumber;i++){
            System.out.println(eightletter + (n++));
        }
    }
    else{
        System.out.println("Invalid Seat Number");
        return;
    }
}
else{
    System.out.println("Invalid Count");
    return;
}
}
}
*****
*****

```

#### 45) CALCULATE OFFER PRICE (DISCOUNT PRICE)

```

import java.util.Scanner;

public class DiscountPrice {
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        String code=sc.nextLine();
        int len=code.length();
        if(len<6 || len>8)
        {
            System.out.println("Invalid Input");
            return;
        }
        String mrps=code.substring(4);
        int mrp=Integer.parseInt(mrps);
        System.out.println("MRP Price :"+mrp);
        if(mrp>=1 && mrp<=10)
        {
            System.out.println("Offer Price: Rs"+mrp);
        }
        else if(mrp>=11 && mrp<=50)

```



```
{
    System.out.println("Offer Price: Rs"+(mrp-5));
}
else if(mrp>=51 && mrp<=500)
{
    System.out.println("Offer Price: Rs"+(mrp-15));
}
else if(mrp>= 501 && mrp<=5000)
{
    System.out.println("Offer Price: Rs"+(mrp-105));
}
else if(mrp>=5001 && mrp<=9999)
{
    System.out.println("Offer Price: Rs"+(mrp-1005));
}
}
}
}
*****
*****
```

### 46) THREE'S

Sample input:  
Enter the string  
Long live

```
import java.util.*;
import java.lang.*;
public class Main {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the String");
        String str =in.nextLine();
        for(int i=0;i<str.length();i++)
        {
            if((Character.isLetter(str.charAt(i)) || Character.isWhitespace(str.charAt(i))))
                continue;
            else{
                System.out.println(str+" is not a valid string");
                return;
            }
        }
        int sum=0;
        for(int i=0;i<str.length();i++){
            if((i+1)%3==0){
                sum+=(int)str.charAt(i);
            }
        }
        System.out.println("Sum is "+sum);
    }
}
}
*****
*****
```

## 47) EVEN POSITION CAPS (CAPITAL LETTERS)

```
import java.util.Scanner;
import java.util.regex.Pattern;

public class EvenPositionCaps {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Input string");
        String s = sc.nextLine();
        if (!Pattern.matches("[A-Za-z]+", s)) {
            System.out.println(s + " is an invalid input");
            return;
        } else {
            if (s.length() < 5 || s.length() > 20) {
                System.out.println(s + " is an invalid length");
                return;
            }
            String output = s.charAt(0) + "";
            for (int i = 0; i < s.length() - 1; i++) {
                if ((i) % 2 == 0)
                    output += Character.toString(s.charAt(i + 1)).toUpperCase();
                else
                    output += s.charAt(i + 1);
            }
            System.out.println(output);
        }
    }
}
```

### \*\*\*ALTERNATE METHOD\*\*\*

```
import java.util.*;
import java.util.regex.Pattern;
public class Main{
    public static void main(String args[]){
        Scanner sc = new Scanner(System.in);

        System.out.println("Input string");
        String str = sc.next();
        if(Pattern.matches("[A-Za-z]+",str)){

            if(str.length()<5 || str.length()>20){
                System.out.println(str+" is an invalid length");
                return;
            }
            String output = str.charAt(0)+"";
            for(int i=0;i<str.length()-1;i++){
                if(i%2==0){
                    output = output+ Character.toString(str.charAt(i+1)).toUpperCase();
                }
                else
                    output = output + str.charAt(i+1);
            }
        }
    }
}
```



```

}
}
*****
*****

```

#### 49) SPEED ESTIMATION

```

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

        System.out.println("Enter the distance in kilometre");
        int km = sc.nextInt();

        if(km<=0){
            System.out.println("Invalid Input");
            return;
        }

        System.out.println("Enter the time to reach in hours");
        int time = sc.nextInt();
        if(time<=0){
            System.out.println("Invalid Input");
            return;
        }

        int sp = km/time;
        if(sp>30){
            int in_sp = sp-30;
            System.out.println("You want to increase a speed "+in_sp+" km/hr from a normal speed");
        }
        else{
            System.out.println("You drive a car at a normal speed");
        }
    }
}
*****
*****

```

#### 50) SUM OF SQUARES (RE-TEST)

Sample input  
 Enter the number of values  
 4  
 Enter the values  
 2  
 7  
 9  
 8

Sample output  
 130

Explanation  
 Odd numbers are  $7, 9 = 7*7 + 9*9 = 49+81=130$

```

import java.util.*;
public class Main
{
public static void main(String[] args)
{
Scanner sc=new Scanner(System.in);
System.out.println("Enter the number of values");
int n=sc.nextInt();
if(n<=0)
{
System.out.println(n+" is an invalid size");
return;
}
int a[]=new int[n];
int count=0;
int sum=0;
System.out.println("Enter the values");
for(int i=0;i<n;i++)
{
a[i]=sc.nextInt();
if(a[i]%2!=0)
count=count+1;
}
if(count<=0)
{
System.out.println("These "+n+" values are not a odd digit");
return;
}
else
{
for(int i=0;i<n;i++)
{
if(a[i]%2!=0)
{
sum=sum+a[i]*a[i];
}
}
System.out.println(sum);
}
}
}
}

```

**JAVA END**

```

*****
*****
*****

```

**RDBMS IMPORTANT CODES(NOT TESTED)**

1.)Select concat(concat(customer\_name,'has taken a policy on'),date\_of\_policy) as Enrollment\_details from customer JOIN Policy using (customer\_id) order by customer\_name,date\_of\_policy;

2.)select ppolicy\_id,policy\_name,rate\_of\_interest, bonus\_percentage from policy where minimum\_primeium\_amount = 1200 order by policy\_d;

3.)select fine\_range,fine\_amount  
CASE  
When fine\_range=L1  
then 5+fine\_amount  
when fine\_range=L2  
then 10+fine\_amount  
When fine\_range=M1  
then 15+fine\_amount  
when fine\_range=M2  
then 20+fine\_amount  
When fine\_range=H1

```
then 25+fine_amount
when fine_range=H2
then 30+fine_amount
END as NEW_FINE_AMOUNT
```

```
4.)select leave_type,allocated_days
CASE
when leave_type='CASUAL'
then allocated_days+2
when leave_type='SICK'
then allocated_days+5
when leave_type='MATERNITY'
then allocated_days+90
when leave_type='MARRIAGE'
then allocated_days+3
when leave_type='STUDY'
then allocated_days-2
END as NEW_ALLOCATED_TYPES
from table_name
order by leave_type;
```

```
5.) select emp_id,emp_name,department_id,department_name
from Department JOIN Employee using (department_id)
JOIN Leave+Avail_details using (Emp_id)
JOIN Leave using (Leave_type)
where Allocated_days = 0
order by emp_id;
```

```
*****
**
```

```
1.) Account Info - "HDVL002"
select account_type, count(account_id) as TOTAL_ACCOUNTS
from Account_Info where IFC_Code = 'HDVL002'
group by account_type order by account_type;
```

```
2.)select customer_id,customer_name,phone_no,order_date
from Customer_info JOIN Orders using (customer_id)
where order_amount > 500
order by customer_id,order_date;
```

```
3.) select distinct customer_id,customer_name,phone_no,loan_amount as
total_loan_amount from customers JOIN loans_taken using
(customer_id)
order by customer_id;
```

```
4.) select distinct boat_id,seat_capacity,count(ride_id) as ride_count
From Boat_details JOIN Ride_details using (boat_id)
order by boat_id;
```

```
5.) select customer_id,customer_name,contact_no,mail_id
from Coustomer_details where Gender = 'M'
order by customer_id;
```

6.) select customer\_name,total\_amount\_paid  
from Customer\_master JOIN Booking\_details using (customer\_id)  
where total\_amount\_paid < (select max(total\_amount\_paid) from booking\_details  
where total\_amount\_paid < (select max(total\_amount\_paid) from booking\_details))  
order by customer\_name;

7.) select book\_code,book\_title, author,rack\_num  
from book\_details where category = 'JAVA'  
order by book\_code;

8.) select customer\_name,policy\_enrollment as Enrollment\_details  
from customer JOIN policy\_enrollment using (customer\_id)  
order by customer\_name,date\_of\_enrollment;

9.)DECODE QUESTION  
select fine\_range, fine\_amount,  
decode(fine\_range, 'L1',fine\_amount+5,  
'L2',fine\_amount+10,  
'M1',fine\_amount+10,  
'M2',fine\_amount+10,  
'H1',fine\_amount+10,  
'H2',fine\_amount+10)new\_fine\_amount  
from fine\_details;

10.)select customer\_name||" has taken policy on"|| date\_of\_enrollment as  
enrollment\_details form customer  
join policyenrollment using (customer\_id)  
order by customr\_name,date\_of\_enrollment;

11.)select policy\_id,policy\_name,rate\_of\_interest,bonus\_percentage  
from policy where mimum\_premium\_amount = 1200  
order by policy\_id;

12.) select customer\_id,customer\_name, street,phone\_no,email  
from Customers JOIN loan\_taken using (customer\_id)  
where loan\_amount > = 500000 and loan\_amonunt <1500000  
order by customer\_id;

13.)select distinct boat\_id, boat\_name,boat\_type  
from boat\_details JOIN ride\_details using (boat\_id)  
where DOT LIKE '%-AUG-%' and Shift = 'evening'  
order by boat\_id;

14.) select policy\_id,policy\_name,rate\_of\_interest  
from policy where minimum\_ppremium\_amount < 3000 AND bonus\_percent > 85  
order by policy\_id;

## **RDBMS ANSWERS**

1.1) Write a query to display boat\_type and number of boats running under each type. Give an alias name as 'NO\_OF\_BOATS'.

Note: Boat\_type can be 'DELUXE' or 'SUPER DELUXE'.

```
select boat_type,count(Boat_id) as NO_OF_BOATS
```



```
from boat_details
group by Boat_type;
```

```
1.2) select boat_name,boat_type from boat_details
where seat_capacity between 100 and 200
order by boat_name desc;
```

```
2.1) select vehicle_type,count(vehicle_id)
from vehicle_details
group by vehicle_type
order by vehicle_type;
```

```
2.2) select driver_id,driver_name,phone_no,Driver_rating
from driver_details where driver_rating between 3 and 5
order by driver_rating desc;
```

```
3.1) select coursename from course
c join registration r on
c.courseid=r.courseid
having count(studid)>=2
group by coursename
order by coursename;
```

```
3.2) select s.studid,sum(fees) as TOTALFEES
from student s join registration r
on s.studid=r.studid join course c
on r.courseid=c.courseid
group by s.studid
order by s.studid;
```

```
3.3) select studid,count(CourseID) as NOOFCOURSES
from registration
group by Studid
order by NOOFCOURSES desc,Studid;
```

```
3.4) select student.stuid,firstname from student
join registration on registration.stuid=student.stuid
where lower(to_char(doj,'MON'))='jan';
```

```
3.5) select courseid,coursename from
course where duration between 10 and 15;
```

```
3.6) select courseid,registration.stuid from registration
join student on registration.stuid=student.stuid
where lower(to_char(doj,'MON'))=lower(to_char(dob,'MON'));
```

