1.

import java.util.Scanner;

class StudentMarks

{

static int[] mark = new int[6];

static char grade;

static float per;

public static void calculate()

{

int total=0;

for (int i=0; i<6; i++)

total += mark[i];

per = (float) total/6;

if (per > 85.0f)

grade = 'A';

else if (per > 75.0f)

grade = 'B';

else if (per > 65.0f)

grade = 'C';

else if (per > 50.0f)

grade = 'D';

else if (per > 35.0f)

grade = 'E';

else

grade = 'F';

}

public static void display()

{

System.out.println("Percentage : "+per+"%");

System.out.println("Grade : "+grade);

}

}

public class Practical\_1

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

StudentMarks st = new StudentMarks();

System.out.print("Enter Marks of 6 Subjects : ");

for (int i=0; i<6; i++)

st.mark[i] = sc.nextInt();

st.calculate();

st.display();

}

}

2.

import java.util.Scanner;

class Math

{

static double a, b;

public static double add ()

{

return (a+b);

}

public static double subtract ()

{

return (a-b);

}

public static double divide ()

{

return (a/b);

}

public static double multiply ()

{

return (a\*b);

}

}

public class Practical\_2

{

public static void main (String[] args)

{

Scanner sc = new Scanner (System.in);

Math m = new Math();

System.out.println("Enter a : ");

m.a = sc.nextDouble();

System.out.println("Enter b : ");

m.b = sc.nextDouble();

System.out.println("Addition : "+m.add());

System.out.println("Subtraction : "+m.subtract());

System.out.println("Division : "+m.divide());

System.out.println("Multiplication : "+m.multiply());

}

}

2 Practical

1.

import java.util.\*;

class Practical\_2\_1

{

public static void main(String a[])

{

int b[]=new int[a.length];

int n=a.length,temp;

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

b[i]=Integer.parseInt(a[i]);

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

{

for(int j=0;j<n;j++)

{

if(b[i]<b[j])

{

temp=b[i];

b[i]=b[j];

b[j]=temp;

}

}

}

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

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

}

}

2.

import java.util.\*;

import java.lang.\*;

class Practical\_2\_2

{

public static void main(String arg[])

{

Scanner s=new Scanner(System.in);

String data=s.nextLine();

int l=data.length();

System.out.println("Length is : "+l);

for(int i=l/2;i<l;i++)

System.out.print(data.charAt(i));

//System.out.println(data.substring(l/2));

}

}

3.

import java.util.\*;

import java.lang.\*;

class Practical\_2\_3

{

public static void main(String arg[])

{

Scanner s=new Scanner(System.in);

String data=s.nextLine();

int a=0,b=0;

data=data.toLowerCase();

data=data.trim();

int l=data.length();

System.out.println("Length is : "+l);

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

{

char c=data.charAt(i);

if(c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u')

a++;

}

System.out.println("vowels is : "+a+" consonants is : "+(l-a));

}

}

4.

import java.util.\*;

import java.lang.\*;

class Practical\_2\_4

{

public static void main(String arg[])

{

Scanner s=new Scanner(System.in);

String data=s.nextLine();

int a=0;

if(Character.isUpperCase(data.charAt(0)))

a++;

int k=0;

for(int i=1;i<data.length();i++)

{

char c=data.charAt(i);

if( c == ' ')

{

k=i+1;

c=data.charAt(k);

if(Character.isUpperCase(c))

a++;

}

}

System.out.println("Word Are : "+a);

}

}

5.

import java.util.\*;

import java.lang.\*;

class Practical\_2\_5

{

public static void main(String arg[])

{

Scanner s=new Scanner(System.in);

String data=s.nextLine();

int l=data.length();

//System.out.println("Length is : "+(l%2));

if((l%2)==0)

{

String data1=data.substring(l/2);

String data2=data.substring(0,l/2);

data2=new StringBuffer(data2).reverse().toString();

if(data1.equals(data2))

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

else

System.out.println("String is Not Palindrome");

}else

{

String data1=data.substring((l/2)+1);

String data2=data.substring(0,(l/2));

data2=new StringBuffer(data2).reverse().toString();

if(data1.equals(data2))

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

else

System.out.println("String is Not Palindrome");

}

}

}

6.

import java.util.\*;

import java.\*;

class Practical\_2\_6{

public static void main(String ard[])

{

Scanner s=new Scanner(System.in);

//System.out.println(data);

int a=0,b=0,f=0,d=0,e=0,k=1,aa,bb,ff,dd,ee;

//System.out.println("Length is : "+l);

aa=bb=ff=dd=ee=0;

while(true)

{

String data=s.nextLine();

data=data.toLowerCase();

int l=data.length();

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

{

char c=data.charAt(i);

if(c == 'a')

a++;

else if(c == 'e')

b++;

else if(c == 'i')

f++;

else if(c == 'o')

d++;

else if(c == 'u')

e++;

}

int index=data.indexOf("quit");

if(index!=-1)

break;

System.out.println("Line "+k+" vowels are \n a : "+a+"\n e : "+b+"\n i : "+f+"\n o : "+d+"\n u : "+e);

aa+=a;bb+=b;ff+=f;dd+=d;ee+=e;

a=b=f=d=e=0;k++;

}

System.out.println("Total vowels are \n a : "+aa+"\n e : "+bb+"\n i : "+ff+"\n o : "+dd+"\n u : "+ee);

};

}

3

1.

import java.util.\*;

import java.\*;

class Student

{

int roll\_no;

String name,address,branch;

Student()

{

roll\_no=0;

name=address=branch=null;

}

Student(int roll\_no,String name,String address,String branch)

{

this.roll\_no=roll\_no;

this.name=name;

this.address=address;

this.branch=branch;

}

void showdata()

{

System.out.println(" Student Details\n Name : "+name+"\n Roll No. : "+roll\_no+"\n Address. : "+address+"\n Branch. : "+branch);

}

}

class Practical\_3\_1 {

public static void main(String arg[])

{

Scanner s=new Scanner(System.in);

System.out.println("Enter Number Of Student : ");

int n=s.nextInt();

s.nextLine();

Student student[]=new Student[n];

int roll\_no;

String name,address,branch;

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

{

System.out.println("Student Name : ");

name=s.nextLine();

System.out.println("Roll No : ");

roll\_no=s.nextInt();

s.nextLine();

System.out.println("Address : ");

address=s.nextLine();

System.out.println("Branch : ");

branch=s.nextLine();

student[i]=new Student(roll\_no,name,address,branch);

student[i].showdata();

}

}

}

2.

import java.util.\*;

import java.\*;

class Complex

{

int real,img;

Complex()

{

real=img=0;

}

Complex(int real,int img)

{

this.real=real;

this.img=img;

}

void getNumber()

{

Scanner s=new Scanner(System.in);

System.out.println("Enter Complex Number By Real or Img Number :- ");

real=s.nextInt();

img=s.nextInt();

}

void addTwoNumber(Complex b,Complex a)

{

real=b.real+a.real;

img=b.img+a.img;

}

void addTwoNumber(Complex a)

{

real=real+a.real;

img=img+a.img;

}

void ShowData()

{

System.out.println("Complex Number is : "+real+" + "+img+"i \n");

}

}

class Practical\_3\_2

{

public static void main(String arg[])

{

Scanner s=new Scanner(System.in);

Complex n1,n2,n3;

n3=new Complex();

n1=new Complex(10,20);

n2=new Complex(10,20);

n1.getNumber();

n2.getNumber();

n3.addTwoNumber(n1,n2);

n1.addTwoNumber(n2);

System.out.println("Passing Only One Object");

n1.ShowData();

System.out.println("Passing All Object");

n3.ShowData();

}

}

4

1.

import java.util.\*;

import java.\*;

class Player

{

int age;

String name,nationality,typePlayer;

Player()

{

age=0;

name=nationality=typePlayer=null;

}

void getData()

{

Scanner s=new Scanner(System.in);

name=s.nextLine();

age=s.nextInt();

s.nextLine();

typePlayer=s.nextLine();

if(typePlayer.equals("cricket")||typePlayer.equals("Cricket"))

typePlayer="cricket";

nationality=s.nextLine();

}

void showData()

{

System.out.println("---------------------Player-------------------\nName : "+name+"\nAge : "+age+"\nType : "+typePlayer+"\nNationality : "+nationality);

}

}

class CricketPlayer extends Player

{

String type;

void getData()

{

super.getData();

if((super.typePlayer).equals("cricket"))

{

System.out.println("Type Cricket Player (1-Batsman,2-Bowler): ");

Scanner s=new Scanner(System.in);

int ch;

ch=s.nextInt();

s.nextLine();

if(ch==1)

type="batsman";

else if(ch==2)

type="bowler";

else

System.out.println("Wrong Choice");

}

}

void showData()

{

super.showData();

if((super.typePlayer).equals("cricket"))

System.out.println("\nType Cricket Player : "+type);

}

}

class Batsman extends CricketPlayer

{

int nomatch,runs;

void getData()

{

super.getData();

if((super.type).equals("batsman"))

{

Scanner s=new Scanner(System.in);

System.out.println("No of Match :- ");

nomatch=s.nextInt();

s.nextLine();

System.out.println("Runs :- ");

runs=s.nextInt();

s.nextLine();

}

}

void showData()

{

super.showData();

if((super.type).equals("batsman"))

System.out.println("No of Match : "+nomatch+"\nRuns : "+runs);

}

}

class Bowler extends CricketPlayer

{

int noover,wickets;

void getData()

{

super.getData();

if((super.type).equals("bowler"))

{

Scanner s=new Scanner(System.in);

System.out.println("No of Over :- ");

noover=s.nextInt();

s.nextLine();

System.out.println("Wickets :- ");

wickets=s.nextInt();

s.nextLine();

}

}

void showData()

{

super.showData();

if((super.type).equals("bowler"))

System.out.println("No of Match : "+noover+"\nRuns : "+wickets);

}

}

class Practical\_4\_1

{

public static void main(String arg[])

{

Batsman player1=new Batsman();

Bowler player2=new Bowler();

int ch;

Scanner s=new Scanner(System.in);

System.out.println("Menu\n1:Batsman\n2:Bowler\n0:Exit\n");

ch=s.nextInt();

while(true)

{

if(ch==1)

{

player1.getData();

player1.showData();

}

else if(ch==2)

{

player2.getData();

player2.showData();

}

else if(ch==0)

break;

else

System.out.println("Wrong Choice");

System.out.println("Menu\n1:Batsman\n2:Bowler\n0:Exit\n");

ch=s.nextInt();

}

}

}