JAVA PROGRAM

CODE : prime number

import java.util.Scanner;

public class PrimeNumbers {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int count=1;

int i=1;

System.out.println("First 50 Prime number:");

while(count<=50)

{

int x=0;

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

{

if(i%j==0)

{

x=1;

break;

}

}

if(x==0)

{

System.out.println(i);

count++;

}

i++;

}

}

}

**Factorial=**

import java.util.Scanner;

public class Factorial

{

public static void main(String[] args)

{

Scanner sc=new Scanner(System.in);

int fact=1;

System.out.println("Enter Number For Factorial: ");

int n=sc.nextInt();

for(int i=1;i<=n;i++)

{

fact=fact\*i;

}

System.out.println("Factorial is "+fact);

}

}

**Sum and avg**

import java.util.Scanner;

public class SumAndAvg

{

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

double no,sum =0, avg;

int n;

System.out.print("How many numbers you want to enter: ");

n = in.nextInt();

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

{

System.out.print("Enter the "+(i+1)+" No: ");

no = in.nextDouble();

sum = sum+ no;

}

avg = sum/n;

System.out.println("Sum of "+ n+" numbers is "+sum);

System.out.println("Avg of " + n + " numbers is "+ avg);

}

}

Calculation

import java.util.Scanner;  
class calculation {  
int no1,no2,result;  
void setValues(int no1,int no2)  
{  
this.no1=no1;  
this.no2=no2;  
}  
int add()  
{  
return no1+no2;  
}  
int substract()  
{  
return no1-no2;  
}  
int multiply()  
{  
return no1\*no2;  
}  
int divide()  
{  
return no1/no2;  
}  
int factorial()  
{  
int i;  
result=1;  
for(i=1;i<=no1;++i)  
{  
result \*=i;  
}  
return result;  
}  
}

Main method

import java.util.Scanner;  
  
public class CalculationMescoeMain  
{  
public static void main(String[] args)  
{  
Scanner in=new Scanner(System.in);  
int choice;  
int no1,no2,result;  
Calculator obj=new Calculator();  
do  
{  
System.out.println("1.Add");  
System.out.println("2.Substract");  
System.out.println("3.Multiply");  
System.out.println("4.Divide");  
System.out.println("5.Factorial");  
System.out.println("6.Exit");  
System.out.println("Enter your choice :");  
choice=in.nextInt();  
}  
switch (choice)  
{  
case 1:  
System.out.println("Enter first number");  
no1=in.nextInt();  
  
System.out.println("Enter Second Number");  
no2=in.nextInt();  
  
obj.setValues(no1,no2);  
result=obj.add();  
System.out.println("Addition :"+result);  
break;  
case 2:  
System.out.println("Enter first number");  
no1=in.nextInt();  
  
System.out.println("Enter Second Number");  
no2=in.nextInt();  
  
obj.setValues(no1,no2);  
result=obj.substract();  
System.out.println("Substraction :"+result);  
break;  
case 3:  
System.out.println("Enter first number");  
no1=in.nextInt();  
  
System.out.println("Enter Second Number");  
no2=in.nextInt();  
  
obj.setValues(no1,no2);  
result=obj.multiply();  
System.out.println("Multiplication :"+result);  
break;  
case 4:  
System.out.println("Enter first number");  
no1=in.nextInt();  
  
System.out.println("Enter Second Number");  
no2=in.nextInt();  
  
obj.setValues(no1,no2);  
result=obj.divide();  
System.out.println("Division :"+result);  
break;  
case 5:  
System.out.println("Enter first number");  
no1=in.nextInt();  
  
obj.setValues(no1,no2);  
result=obj.factorial();  
System.out.println("Factorial of :"+no1+"is"+result);  
break;  
case 6:  
System.out.println("Terminating");  
break;  
default:  
System.out.println("Wrong choice");  
break;  
}while(choice !=6);  
}  
  
}

**Java program using method= Rectangle and widh,length,ara,colour**

public class rect {

int,width,lenth;

String color;

void set\_length(int a)

{

length=a;

}

void set\_width(int a)

{

width=a;

}

void set\_color(String a)

{

color=a;

}

int area()

{

return(width\*length);

}

String getcolor()

{

return(color);

}

}

import java.util.Scanner; public class RectangleMain {

public static void main(String[] args) {

int l,w;

String color;

rect rect1=new rect();

Scanner sc= new Scanner(System.*in*); System.*out*.println("Enter the length: "); l=sc.nextInt();

rect1.set\_length(l);

System.*out*.println("Enter the width: ");

w=sc.nextInt();

rect1.set\_width(w);

System.out.println("Enter the colour: ");

color=sc.next();

rect1.set\_color(color);

rect rect2=new rect();

System.out.println("Enter the length: ");

l=sc.nextInt();

rect2.set\_length(l);

System.out.println("Enter the width: ");

w=sc.nextInt();

rect2.set\_width(w);

System.out.println("Enter the colour: ");

color=sc.next();

rect2.set\_color(color);

if(rect1.area()==rect2.area()&& rect1.getcolor().equals(rect2.getcolor())) System.out.println("Matching Rectangle");

else

System.out.println("Non Matching Rectangle");

**Method and constructor overloading program**

public class CONSTRUCTOR { double width, height, depth;

CONSTRUCTOR(double w, double h, double d)

{

width = w;

height = h;

depth = d

}

CONSTRUCTOR()

{

width = height = depth = 0;

}

CONSTRUCTOR(double len)

{

width = height = depth = len;

}

double volume()

{

return width \* height \* depth;

}

}

public class ConstructorMain {

public static void main(String[] args) {

CONSTRUCTOR mybox1 = new CONSTRUCTOR(10, 20, 15); CONSTRUCTOR mybox2 = new CONSTRUCTOR(); CONSTRUCTOR mycube = new CONSTRUCTOR(7);

double vol;

vol = mybox1.volume();

System.***out***.println(" Volume of mybox1 is " + vol);

vol = mybox2.volume();

System.***out***.println(" Volume of mybox2 is " + vol);

vol = mycube.volume();

System.***out***.println(" Volume of mycube is " + vol);

}

}

**Sorting of integer and string element= 1)list of integer 2)list of names**

**Sorting a list of Numbers**

**class** PartB {

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

{

**int** number []= {55,40,80,65,71};

**int** n=number.length; System.***out***.println("Given list : "); **for**(**int** i=0;i<n;i++)

{

System.***out***.println(" "+number[i]);

}

System.***out***.println("\n");

//Sorting Begins

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

{

**for**(**int** j=i+1;j<n;j++)

{

**if**(number[i]<number[j])

{

//interchange values **int** temp=number[i]; number[i]=number[j]; number[j]=temp;

}

}

}//Sorting ends System.***out***.println("Sorted List"); **for**(**int** i=0;i<n;i++)

{

System.***out***.println(" "+number[i]);

}

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

}

}

# Alphabetical Ordering of String

**class** PartA

## {

**static** String *name*[]=

## {"Madras","Delhi","Ahmedabad","Calcutta","Bombay"};

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

## {

**int** size=*name*.length; String temp=**null**; **for**(**int** i=0;i<size;i++)

## {

**for**(**int** j=i+1;j<size;j++)

## {

**if**(*name*[j].compareTo(*name*[i])<0)

## {

//swap the strings temp=*name*[i]; *name*[i]=*name*[j]; *name*[j]=temp;

## }

}

## }

**for**(**int** i=0;i<size;i++)

## {

System.***out***.println(*name*[i]);

## }

}

**Addition of two matrices**

**import** java.util.Scanner;

**public class** ArrayMatrix {

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

**int** row, col,i,j;

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

System.***out***.println("Enter the number of rows"); row = in.nextInt();

System.***out***.println("Enter the number columns"); col = in.nextInt();

**int** mat1[][] = **new int**[row][col];

**int** mat2[][] = **new int**[row][col];

**int** res[][] = **new int**[row][col]; System.***out***.println("Enter the elements of matrix1");

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

{

**for** ( j= 0 ; j < col ;j++ ) mat1[i][j] = in.nextInt();

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

}

System.***out***.println("Enter the elements of matrix2");

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

{

**for** ( j= 0 ; j < col ;j++ ) mat2[i][j] = in.nextInt();

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

}

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

**for** ( j= 0 ; j < col ;j++ )

res[i][j] = mat1[i][j] + mat2[i][j] ;

System.***out***.println("Sum of matrices:-");

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

{

**for** ( j= 0 ; j < col ;j++ ) System.***out***.print(res[i][j]+"\t");

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

}

}

}

**Concept of inheritance in java= creat a aplayer class**

**public class** Player { String name;

**int** age;

Player(String n,**int** a)

{name=n; age=a;}

**void** show()

{

System.***out***.println("Player name: "+name); System.***out***.println("Age: "+age);

}

}

**public class** Cricket **extends** Player { String type;

Cricket (String n,String t,**int** a)

{

**super**(n,a); type =t;

}

**public void** show()

{

**super**.show();

System.***out***.println("Player type: "+type);

}

}

public class Football extends Player

{

String type;

Football (String n,String t,int a)

{

super(n,a); type= t;

}

public void show()

{

super.show();

System.*out*.println("Player type: "+type);

}

}

public class Hockey extends Player{ String type;

Hockey (String n,String t,int a)

{

super(n,a);

type=t;

}

public void show()

{

super.show();

System.*out*.println("Player type: "+type);

}

}

public class Demo {

public static void main(String[] args) {

Cricket c=new Cricket ("Ankit","Cricket",20); Football f=new Football ("Namrata",

"Football",21);

Hockey h=new Hockey ("Aditya","Hockey",22);

c.show();

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

f.show();

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

h.show();

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

}

}

**Implement inerface**

**public class** Student {

**int** rollno;

**void** getNumber(**int** n)

{

rollno=n;

}

**void** putNumber()

{

System.***out***.println("Roll No. is: "+rollno);

}

}

**public class** test **extends** Student

{

**int** insem, endsem;

**void** getMarks(**int** m1,**int** m2)

{

insem = m1; endsem = m2;

}

**void** putMarks()

{

System.***out***.println("Marks Obtained: "); System.***out***.println("Part 1 Insem Marks="+insem); System.***out***.println("Part 2 Endsem Marks="+endsem);

}

}

**interface** sports

{

**int *sportsWt***=5;

**void** putWt();

}

public class results extends test implements sports

{

int total; @Override

public void putWt()

{

System.*out*.println("Sports Weight = "+*sportsWt*);

}

void display()

{

total=insem+endsem+*sportsWt*;

if(total>100)

total=100;

putNumber(); putMarks(); putWt();

System.*out*.println("Total Score = "+total);

}

}

import java.util.Scanner;

public class InterfaceDemo {

public static void main(String[] args) { Scanner sc=new Scanner(System.*in*); results r1=new results();

System.*out*.println("Enter the student's roll number: ");

int rollno=sc.nextInt(); r1.getNumber(rollno);

System.*out*.println("Enter the student's INSEM Marks out of 30: ");

int inMarks=sc.nextInt();

System.***out***.println("Enter the student's Endsem Marks out of 70: ");

**int** endMarks=sc.nextInt(); r1.getMarks(inMarks, endMarks); r1.display();

}

}

**Exception Handling**

Import java.util.Scanner;

Class Exe {

Public static void main(String[] args) {

Int a, b, result;

Scanner input = new Scanner(System.in);

System.out.println(“Input two integers”);

A = input.nextInt();

B = input.nextInt();

// try block

Try {

Result = a / b;

System.out.println(“Result = “ + result);

}

// catch block

Catch (ArithmeticException e) {

System.out.println(“Exception caught : Division by zero !! “);

}

}

}

**File Handling**

package practical;

import java.io.File;

import java.io.FileReader;

import java.io.FileWriter;

import java.io.IOException;

public class File1 {

public static void main(String[] args) {

File objinf = new File ("A.txt");

File objout = new File ("B.txt");

FileReader ins = null;

FileWriter outs = null;

try

{

ins = new FileReader(objinf);

outs = new FileWriter(objout);

int ch;

while((ch=ins.read())!=-1)

{

outs.write(ch);

}

}

catch(IOException e)

{

System.out.println(e);

System.exit(-1);

}

finally

{

try

{

ins.close();

outs.close();

}

catch(IOException e){}

}

System.out.println("Filed Copied");

}

}