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Lớp: k10\_ĐH\_CNTT3

**I.Bài tập lab03**

**Bài 1:**

**A.Tạo class Point2D:**

package taoclassPoint2D;

public class Point2D {

private float x;

private float y;

public Point2D() {}

public Point2D(float x, float y) {

this.x=x=0.0f;

this.y=y=0.0f;

}

public float getX() {

return x;

}

public float getY() {

return y;

}

}

package taoclassPoint2D;

public class testPoint2D {

public static void main(String[] args) {

Point2D point1= new Point2D();

System.out.println("toa do X cua point 1 la:"+point1.getX());

System.out.println("toa do y cua point 1 la:"+point1.getY());

}

}

**B.Tạo class Triangle**

package trianglelab03;

public class Triangle\_lab03 {

private float width=0.0f;

private float hegth=0.0f;

public Triangle\_lab03() {}

public Triangle\_lab03(float width, float hegth) {

super();

this.width = width;

this.hegth = hegth;

}

public float getWidth() {

return width;

}

public void setWidth(float width) {

this.width = width;

}

public float getHegth() {

return hegth;

}

public void setHegth(float hegth) {

this.hegth = hegth;

}

public String toString() {

return this.width+","+this.hegth;

}

}

package trianglelab03;

public class Mainnn {

public static void main(String[] args) {

Triangle\_lab03 TG1= new Triangle\_lab03();

System.out.println(TG1);

}

}

**C.Tạo class Fraction**

public class Fraction {

private int numerator;//tu

private int denominator;//mau

public Fraction() {}

public Fraction(int num, int den) {

super();

this.numerator = num;

this.denominator = den;

}

public Fraction(Fraction f) {

}

public int getNumerator() {

return numerator;

}

public void setNumerator(int num) {

this.numerator = num;

}

public int getDenominator() {

return denominator;

}

public void setDenominator(int den) {

this.denominator = den;

}

public Fraction addFraction(Fraction f) {

int num =this.getNumerator()\*f.getDenominator()+this.getDenominator()\*f.getNumerator();

int den =this.getDenominator()\*f.getDenominator();

return new Fraction(num,den);

}

public Fraction subFraction(Fraction f) {

int num =this.getNumerator()\*f.getDenominator()-this.getDenominator()\*f.getNumerator();

int den =this.getDenominator()\*f.getDenominator();

return new Fraction(num,den);

}

public Fraction mulFraction(Fraction f) {

int num =this.getNumerator()\*f.getNumerator();

int den =this.getDenominator()\*f.getDenominator();

return new Fraction(num,den);

}

public Fraction divFraction(Fraction f) {

int num =this.getNumerator()\*f.getDenominator();

int den =this.getDenominator()\*f.getNumerator();

return new Fraction(num,den);

}

@Override

public String toString() {

return ""+this.numerator+"/"+this.denominator;

}

}

import java.util.Scanner;

public class testphansso {

public static void main(String[] args) {

Fraction ps1=new Fraction();

Fraction ps2=new Fraction();

Scanner input= new Scanner(System.in);

System.out.println("nhap phan so 1:");

ps1.setNumerator(input.nextInt());

ps1.setDenominator(input.nextInt());

while (ps1.getDenominator()==0) {

System.out.println("nhap lai");

ps1.setDenominator(input.nextInt());

}

System.out.println("nhap phan so 2:");

ps2.setNumerator(input.nextInt());

ps2.setDenominator(input.nextInt());

while (ps2.getDenominator()==0) {

System.out.println("nhap lai");

ps2.setDenominator(input.nextInt());

}

System.out.println("tong hai phan so:"+ps1.addFraction(ps2));

System.out.println("hieu hai phan so:"+ps1.subFraction(ps2));

System.out.println("tich hai phan so:"+ps1.mulFraction(ps2));

System.out.println("thuong hai phan so:"+ps1.divFraction(ps2));

}}

**Bài 2:**

**A.Tạo class Student**

public class Student {

private String stID;

private String stName;

private String stClass;

public Student() {}

public Student(String stID, String stName, String stClass) {

this.stID = stID;

this.stName = stName;

this.stClass = stClass;

}

public String getStID() {

return stID;

}

public void setStID(String stID) {

this.stID = stID;

}

public String getStName() {

return stName;

}

public void setStName(String stName) {

this.stName = stName;

}

public String getStClass() {

return stClass;

}

public void setStClass(String stClass) {

this.stClass = stClass;

}

@Override

public String toString() {

return "Student [stID=" + stID + ", stName=" + stName + ", stClass=" + stClass + "]";

}

}

import java.util.Scanner;

public class testStudent {

public static void main(String[] args) {

Student st1=new Student();

Student st2=new Student();

Scanner input=new Scanner(System.in);

System.out.println("nhap thong tin sinh vien 1, stID+stName+stClass");

st1.setStID(input.next());

st1.setStName(input.next());input.nextLine();

st1.setStClass(input.next());

System.out.println("nhap thong tin sinh vien 2, stID+stClass+stName");

st2.setStID(input.next());

st2.setStName(input.next());input.nextLine();

st2.setStClass(input.next());

System.out.println("thong tin da nhap cua sv1 la"+st1.toString());

System.out.println("thong tin da nhap cua sv1 la"+st2.toString());

}

}

**B.tạo class Book**

public class Book {

private String boCode;

private String boTitle;

private String boAuthor;

public Book(String boCode, String boTitle, String boAuthor) {

super();

this.boCode = boCode;

this.boTitle = boTitle;

this.boAuthor = boAuthor;

}

public Book() {

}

public Book( Book bo) {}

public String getBoCode() {

return boCode;

}

public void setBoCode(String boCode) {

this.boCode = boCode;

}

public String getBoTitle() {

return boTitle;

}

public void setBoTitle(String boTitle) {

this.boTitle = boTitle;

}

public String getBoAuthor() {

return boAuthor;

}

public void setBoAuthor(String boAuthor) {

this.boAuthor = boAuthor;

}

@Override

public String toString() {

return "Book [boCode=" + boCode + ", boTitle=" + boTitle + ", boAuthor=" + boAuthor + "]";

}

}

import java.util.Scanner;

public class testBook {

public static void main(String[] args) {

Book bo1= new Book ("33264","HarryPotter","J.K.Rolling");

System.out.println(bo1.toString());

Book bo2= new Book();

Scanner input=new Scanner(System.in);

System.out.println("nhap thong tin sach");

bo2.setBoCode(input.next());

bo2.setBoTitle(input.next());

bo2.setBoAuthor(input.next());

System.out.println(bo2.toString());

}

}

**C. tạo class LibraryCard**

package bailab\_03;

public class LibraryCard {

private long lbCode;

private String owner;

private int borrowCount;

public LibraryCard() {

}

public LibraryCard(long lbCode, String owner, int borrowCount) {

this.lbCode = lbCode;

this.owner = owner;

this.borrowCount = borrowCount;

}

public long getLbCode() {

return lbCode;

}

public void setLbCode(long lbCode) {

this.lbCode = lbCode;

}

public String getOwner() {

return owner;

}

public void setOwner(String owner) {

this.owner = owner;

}

public int getBorrowCount() {

return borrowCount;

}

public void checkOut(int num) {

if (num == 0)

System.out.println("số lần checkout của bạn là 0");

else {

System.out.println("so lan check out cua ban lon hon 0");

}

}

@Override

public String toString() {

return "lbCode:"+this.lbCode+"Owner:"+this.owner+"so lan muon la:"+this.borrowCount;

}

}

package bailab\_03;

public class test {

public static void main(String[] args) {

LibraryCard LC1=new LibraryCard(23897,"NguyenVanA",1);

System.out.println("lbCode la:"+LC1.getLbCode());

System.out.println("thong tin day du:"+LC1.toString());

}

}

**II.Bài tập ở lớp**

**Bài 1 tạo class hình tròn và vuông, gom vào 1 package:**

package Baitap\_lab3;

public class hinhTron {

private double bankinh;

public hinhTron(double bankinh) {

this.bankinh = bankinh;

}

public double getB(double bankinh) {

return this.bankinh;

}

public void setB(double bankinh){

this.bankinh = bankinh;

}

}

package Baitap\_lab3;

public class hinhVuong {

private double canh;

public hinhVuong(double canh) {

this.canh = canh;

}

public double getA(double canh) {

return this.canh;

}

public void setA(double canh) {

this.canh = canh;

}

}

**Bài 2: tạo vector va thực hiện phép cộng trư, nhân vô hướng, va nhân với hằng số:**

public class Vector {

private int x;

private int y;

private int z;

public Vector () {}

public Vector( int x, int y, int z) {

this.x=x;

this.y=y;

this.z=z;

}

public int getX() {

return x;

}

public void setX(int x) {

this.x = x;

}

public int getY() {

return y;

}

public void setY(int y) {

this.y = y;

}

public int getZ() {

return z;

}

public void setZ(int z) {

this.z = z;

}

public Vector addVector(Vector v) {

int a=this.getX()+v.x;

int b=this.getY()+v.y;

int c=this.getZ()+v.z;

return new Vector(a,b,c);

}

public Vector subVector(Vector v) {

int a=this.getX()-v.x;

int b=this.getY()-v.y;

int c=this.getZ()-v.z;

return new Vector(a,b,c);

}

public Vector mulVector(int r) {

int a=this.getX()\*r;

int b=this.getY()\*r;

int c=this.getZ()\*r;

return new Vector(a,b,c);

}

public int mulvohuong(Vector v) {

int a= this.getX()\*v.x+this.getY()\*v.y+this.getZ()\*v.z;

return a;

}

@Override

public String toString() {

return "Vector [x=" + x + ", y=" + y + ", z=" + z + "]";

}

}

import java.util.Scanner;

public class testt {

public static void main(String[] args) {

Vector v1 = new Vector();

Vector v2 = new Vector();

Scanner input = new Scanner(System.in);

System.out.println("nhap x y z cho vector 1");

v1.setX(input.nextInt());

v1.setY(input.nextInt());

v1.setZ(input.nextInt());

System.out.println("nhap x y z cho vector 2");

v2.setX(input.nextInt());

v2.setY(input.nextInt());

v2.setZ(input.nextInt());

System.out.println("ket qua cua tich vo huong: "+v1.mulvohuong(v2));

System.out.println("ket qua phep cong 2 vector: "+v1.addVector(v2));

System.out.println("ket qua phep tru 2 vector: "+v1.subVector(v2));

System.out.println("nhap vao mot so :");

int r=input.nextInt();

System.out.println("ket qua phep nhan vector 1 vơi hang so la: "+v1.mulVector(r));

System.out.println("ket qua phep nhan vector 2 vơi hang so la: "+v2.mulVector(r));

}

}

**Bài 3: tạo class NhanVien**

public class NhanVien {

private String tenNhanVien;

private double luongCoBan;

private double heSoLuong;

public double LUONG\_MAX;

public NhanVien() {}

public NhanVien(String tenNhanVien, double luongCoBan, double heSoLuong, double LUONG\_MAX) {

this.tenNhanVien= tenNhanVien;

if(luongCoBan>0) {this.luongCoBan= luongCoBan;}

if(heSoLuong>0) {this.heSoLuong= heSoLuong;}

this.LUONG\_MAX= LUONG\_MAX;

}

public String getTenNhanVien() {

return tenNhanVien;

}

public void setTenNhanVien(String tenNhanVien) {

this.tenNhanVien = tenNhanVien;

}

public double getLuongCoBan() {

return luongCoBan;

}

public void setLuongCoBan(double luongCoBan) {

if (luongCoBan>0) {

this.luongCoBan = luongCoBan;}

}

public double getHeSoLuong() {

return heSoLuong;

}

public void setHeSoLuong(double heSoLuong) {

if(heSoLuong>0) {

this.heSoLuong = heSoLuong;}

}

public double getLUONG\_MAX() {

return LUONG\_MAX;

}

public void setLUONG\_MAX(double lUONG\_MAX) {

LUONG\_MAX = lUONG\_MAX;

}

public double tinhLuong() {

return this.luongCoBan\*this.heSoLuong;

}

public boolean kiemTraLuong() {

if(tinhLuong()<this.LUONG\_MAX) {

System.out.println("luong lon hon luong toi da nen khong the tang");

return false;}

else return true;

}

public void inTTin() {

System.out.println("ten cua nhan vien la:"+this.tenNhanVien);

System.out.println("luong co ban cua nhan vien la:"+this.luongCoBan);

System.out.println("he so luong:"+this.heSoLuong);

System.out.println("luong toi da la: "+this.LUONG\_MAX);

}

}