**Câu 1 Lab 03 :**

**Public class Point2D {**

**Private float x;**

**Private float y;**

**Public Point2D() {**

**this.x = 0.0f;**

**this.y = 0.0f;**

**}**

**Public Point2D(float x, float y) {**

**this.x = x;**

**this.y = y;**

**}**

**Public float getX() {**

**return x;**

**}**

**Public float getY() {**

**return y;**

**}**

**}**

**Public class Triangle {**

**private float width;**

**private float height;**

**Public Triangle() {**

**this.width = 0.0f;**

**this.height = 0.0f;**

**}**

**public Triangle(float width, float height) {**

**if (height>0 && width>0) {**

**this.height = height;**

**this.width = width;**

**}**

**}**

**public float getWidth() {**

**return this.width;**

**}**

**public void setWidth(float width) {**

**this.width = width;**

**}**

**Public float getHeight() {**

**return this.height;**

**}**

**Public void setHeight(float height) {**

**this.height = height;**

**}**

**Public String toString() {**

**return ("Triangle (Width = " + this.width + ", Height = " + this.height + ")");**

**}**

**}**

**Public class Fration {**

**private int numerator;**

**private int denominator;**

**public Fration() {**

**this.denominator = 0;**

**this.numerator = 1;**

**}**

**public Fration(int num, int den) {**

**if (den == 0) {**

**System.out.println("Nhập mẫu số khác 0 đi bạn ơiiii");**

**this.denominator = 1;**

**this.numerator = 0;**

**}**

**else {**

**this.denominator = den;**

**this.numerator = num;**

**}**

**}**

**Public Fration(Fration f) {**

**this.denominator = f.denominator;**

**this.numerator = f.numerator;**

**}**

**Public Fration add(Fration f) {**

**int a = this.numerator \* f.denominator + this.denominator \* f.numerator;**

**int b = this.denominator \* f.denominator;**

**return new Fration(a, b);**

**}**

**Public Fration sub(Fration f) {**

**int a = this.numerator \* f.denominator - this.denominator \* f.numerator;**

**int b = this.denominator \* f.denominator;**

**return new Fration(a, b);**

**}**

**Public Fration mul(Fration f) {**

**int a = this.numerator \* f.numerator;**

**int b = this.denominator \* f.denominator;**

**return new Fration(a, b);**

**}**

**Public Fration div(Fration f) {**

**int a = this.numerator \* f.denominator;**

**int b = this.denominator \* f.numerator;**

**return new Fration(a, b);**

**}**

**Public void reducer() {**

**int a = this.numerator;**

**int b = this.denominator;**

**if (a == 0 || b == 0) {**

**a = a + b;**

**}**

**else {**

**while (a != b) {**

**if (a > b) {**

**a = a - b;**

**}**

**else {**

**b = b - a;**

**}**

**}**

**}**

**int uScln = a;**

**this.numerator = this.numerator / uScln;**

**this.denominator = this.denominator / uScln;**

**}**

**public String toString() {**

**return ("Fration [num = " + this.numerator + ", den = +" + this.denominator + "]");**

**}**

**}**

**Public class Student {**

**private String stID;**

**private String stName;**

**private String stClass;**

**Public Student() {**

**this.stID = "";**

**this.stName = "";**

**this.stClass = "";**

**}**

**Public Student(String stID, String stName, String stClass) {**

**this.stID = stID;**

**this.stName = stName;**

**this.stClass = stClass;**

**}**

**Public Student(Student st) {**

**this.stID = st.stID;**

**this.stName = st.stName;**

**this.stClass = st.stName;**

**}**

**Public String getStID() {**

**return this.stID;**

**}**

**Public String getStName() {**

**return this.stName;**

**}**

**Public String getStClass() {**

**return this.stClass;**

**}**

**Public void setStID(String id) {**

**this.stID = id;**

**}**

**Public void setStName(String name) {**

**this.stName = name;**

**}**

**Public void setStClass(String Class) {**

**this.stClass = Class;**

**}**

**Public String toString() {**

**return ("Student [ID : " + this.stID + ", Name : " + this.stName + ", Class : " + this.stClass + "]");**

**}**

**}**

**Public class Book {**

**private String boCode;**

**private String boTitle;**

**private String boAuthor;**

**Public Book() {**

**}**

**Public Book(String boCode, String boTitle, String boAuthor) {**

**this.boAuthor = boAuthor;**

**this.boCode = boCode;**

**this.boTitle = boTitle;**

**}**

**Public Book(Book bo) {**

**this.boAuthor = bo.boAuthor;**

**this.boCode = bo.boCode;**

**this.boTitle = bo.boTitle;**

**}**

**Public String getBoCode() {**

**return this.boCode;**

**}**

**Public String getBoTitle() {**

**return this.boTitle;**

**}**

**Public String getAuthor() {**

**return this.boAuthor;**

**}**

**Public void setBoCode(String boCode) {**

**this.boCode = boCode;**

**}**

**Public void setBoTitle(String boTitle) {**

**this.boTitle = boTitle;**

**}**

**Public void setBoAuthor(String boAuthor) {**

**this.boAuthor = boAuthor;**

**}**

**Public String toString() {**

**return ("Book [Code : " + this.boCode + ", Title : " + this.boTitle + ", Author : " + this.boAuthor + "]");**

**}**

**}**

**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 this.lbCode;**

**}**

**Public String getOwner() {**

**return this.owner;**

**}**

**Public int getBorrowCount() {**

**return this.borrowCount;**

**}**

**Public void setLbCode(long code) {**

**this.lbCode = code;**

**}**

**Public void setOwner(String owner) {**

**this.owner = owner;**

**}**

**Public void setBorrowCount(int borrowCount) {**

**this.borrowCount = borrowCount;**

**}**

**Public void checkOut(int num) {**

**if (num > 0) {**

**System.out.println("Số tiền bạn cần trả: " + num);**

**} else {**

**System.out.println("Bạn chưa mượn bất kì cuốn sách nào!");**

**}**

**}**

**Public String toString() {**

**return ("LibraryCard [ Code : " + this.lbCode + ", Owner : " + this.owner + ", BorrowCount : "**

**+ this.borrowCount + "]");**

**}**

**}**