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| **学校** | 吉林大学珠海学院 |  | **班级** | **软件7班** |  | **科目** | JAVA面向对象程序设计 |
| **学院** | 计算机学院 |  | **姓名** | 张子恒 |  | **日期** | 2023.\*.\* |
| **专业** | 软件工程 |  | **学号** | 04222119 |  | **实验名称** | 实验六 |

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| **实验内容**  第1题  代码（要有必要的注释说明程序思路）  package ex06;  public class test01 {  public static void main(String[] args) {  Chinese chinese = new Chinese(188, 70);  chinese.chinaGongfu();   Beijingmen beijingmen = new Beijingmen(180, 50);  beijingmen.beijingOpera();   American american = new American(160, 60);  american.americanBoxing();  } }  class People {  protected double height;  protected double weight;   public People(double height, double weight) {  this.height = height;  this.weight = weight;  }   public double getHeight() {  return height;  }   public void setHeight(double height) {  this.height = height;  }   public double getWeight() {  return weight;  }   public void setWeight(double weight) {  this.weight = weight;  }   public void speakHello() {  System.*out*.println("父类People Hello~");  }   public void averageHeight() {  System.*out*.println("父类People averageHeight()");  }  public void averageWeight() {  System.*out*.println("父类People averageWeight()");  }  } class Chinese extends People {  public Chinese(double height, double weight) {  super(height, weight);  }   public void chinaGongfu() {  System.*out*.println("中国功夫！");  }   @Override  public void speakHello() {  super.speakHello();  System.*out*.println("子类Chinese Hello~");  }   @Override  public void averageHeight() {  super.averageHeight();  System.*out*.println("子类Chinese averageHeight()");  }   @Override  public void averageWeight() {  super.averageWeight();  System.*out*.println("子类Chinese averageWeight()");  }  } class American extends People {  public American(double height, double weight) {  super(height, weight);  }   public void americanBoxing() {  System.*out*.println("American~Boxing~");  }   public void speakHello() {  super.speakHello();  System.*out*.println("子类American Hello~");  }   @Override  public void averageHeight() {  super.averageHeight();  System.*out*.println("子类American averageHeight()");  }   @Override  public void averageWeight() {  super.averageWeight();  System.*out*.println("子类American averageWeight()");  } }  class Beijingmen extends Chinese {  public Beijingmen(double height, double weight) {  super(height, weight);  }  public void beijingOpera() {  System.*out*.println("京剧~地道~");  }  public void speakHello() {  super.speakHello();  System.*out*.println("子类Beijing Hello~");  }   @Override  public void averageHeight() {  super.averageHeight();  System.*out*.println("子类Beijin averageHeight()");  }   @Override  public void averageWeight() {  super.averageWeight();  System.*out*.println("子类Beijin averageWeight()");  } }  运行结果截图    第2题  代码（要有必要的注释说明程序思路）  package com.ex06.test02;  import java.util.Scanner;  public class test02 {  public static void main(String[] args) {  Scanner scanner = new Scanner(System.*in*);   ConstructionBank constructionBank = new ConstructionBank();//创建建设银行对象 constructionBank  BankOfDalian bankOfDalian = new BankOfDalian();//创建大连银行对象 bankOfDalian   System.*out*.println("输入存款金额：");  constructionBank.savedMoney = scanner.nextInt();  bankOfDalian.savedMoney = constructionBank.savedMoney;  System.*out*.println("输入存款时长：");  constructionBank.year = scanner.nextDouble();  bankOfDalian.year = constructionBank.year;  System.*out*.println("输入建设银行的存款利率：");  constructionBank.rate = scanner.nextDouble();  // 分别调用两个对象的computerInterest()方法  constructionBank.computerInterest();  bankOfDalian.computerInterest();   double dif;//利息差值  if(constructionBank.interest > bankOfDalian.interest) {//建设银行>大连银行  dif = (double) constructionBank.interest - (double) bankOfDalian.interest;  System.*out*.println("建设银行的利息大于大连银行：" + dif);  } else if (constructionBank.interest < bankOfDalian.interest) {//大连银行>建设银行  dif = (double) bankOfDalian.interest - (double)constructionBank.interest;  System.*out*.println("大连银行的利息大于建设银行 差值为：" + dif);  } else {//建设银行=大连银行  System.*out*.println("两家银行利息相等");  }   } }  package com.ex06.test02;  class Bank {  protected int savedMoney; //存款金额  protected int year; //存款时长  protected double interest; //利息   double computerInterest (){  interest=year\*0.35\*savedMoney;  return interest;  } }  package com.ex06.test02;  class BankOfDalian extends Bank {  protected double year;  double computerInterest() {  super.year = (int)year; // 除去小数部分 整数即为年份  super.computerInterest(); // 按Bank的方法计算出整年的利息  int day = (int)((year - super.year) \* 1000); // 算出去除整年后还剩的天数 day  interest += day \* 0.35 / 365 \*savedMoney; // 总利息 = 整年利息 + 零下天利息 （天利率 = 年利率 / 365）  System.*out*.println(savedMoney + "元在大连银行" + super.year + "年零" + day + "天的利息：" + interest + "元" );  return interest;  }   public double getYear() {  return year;  }   public void setYear(double year) {  this.year = year;  } }  package com.ex06.test02;  class ConstructionBank extends Bank{  protected double year;  protected double rate;   double computerInterest() {  super.year = (int)year;  super.computerInterest();  int day = (int)((year -super.year) \* 1000);  interest += day \* rate / 365 \* savedMoney;  System.*out*.println(savedMoney + "元在建设银行" + super.year + "年零" + day + "天的利息：" + interest + "元" );  return interest;  }   public double getYear() {  return year;  }   public void setYear(double year) {  this.year = year;  }   public double getRate() {  return rate;  }   public void setRate(double rate) {  this.rate = rate;  } }  运行结果截图    第3题  代码  package com.ex06.test03;  import java.util.Scanner;  public class test03 {  public static void main(String[] args) {  Scanner scanner = new Scanner(System.*in*);   System.*out*.println("输入基本星期工资：");  double basicWeekEarnings = scanner.nextDouble();  System.*out*.println("输入基本月工资：");  double basicMonthEarnings = scanner.nextDouble();  System.*out*.println("输入基本年工资：");  double basicYearEarnings = scanner.nextDouble();   Employee[] employee = new Employee[9];   for (int i = 0; i < 9; i++) {  if(i < 3) {  employee[i] = new WeekWorker();  employee[i].basicWage = basicWeekEarnings;  }else if (i < 6) {  employee[i] = new MonthWorker();  employee[i].basicWage = basicMonthEarnings;  }else {  employee[i] = new YearWorker();  employee[i].basicWage = basicYearEarnings;  }  }   Company company = new Company(employee);  System.*out*.println("公司薪水总额：" + company.salaryPlay());   } }  package com.ex06.test03;  class Company {  Employee[] employees = new Employee[9];  Company(Employee[] employee) {  for (int i = 0; i < 9; i++) {  this.employees[i] = employee[i];  }  }  double salaryPlay() {  double allEarning = 0;  for (int i = 0; i < 9; i++) {  allEarning += employees[i].earnings();  }  return allEarning;  } }  package com.ex06.test03;  public abstract class Employee {  double basicWage;  public abstract double earnings(); }  package com.ex06.test03;  class WeekWorker extends Employee {  public double earnings() {  return basicWage \*52;  } }  package com.ex06.test03;  class MonthWorker extends Employee {  public double earnings() {  return basicWage \*12;  } }  package com.ex06.test03;  class YearWorker extends Employee {  public double earnings() {  return basicWage;  } }  运行结果截图    第4题  代码  运行结果截图  第5题  代码  运行结果截图 |
| **小结** |