《Java语言程序设计》

课程实验报告

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| 专业名称 | 计算机科学与技术 | 年级 | 17级 | 班级 | 计1 |
| 学生姓名 | 任志慷 | **指导老师** | 李焱 | 时间 | 4-6 |

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| 实验名称 | 循环结构程序设计2 |
| 实  验  目  的  及  要  求 | 目的：  了解熟悉顺序Java程序设计的形式，编写完整Java程序。  要求：   * 掌握while循环。 * 掌握while应用场合。 * 掌握格式化输出。 * 注意避免易犯的错误。 * 会用Java编写完整的程序。 |
| 实  验  环  境 | WIN 10 64位  JDK 1.9  Eclipse 2018 |
| 实  验  内  容 | 第5章编程练习题: 5.14-5.18, 5.24, 5.26, 5.29 |
| 实  验  步  骤  或  实  验  方  案 | **5.14**  **import** java.util.\*;  **public** **class** 5.14 {  **public** **static** **void** main(String[]arges){  Scanner in=**new** Scanner(System.***in***);  System.***out***.print("请输入两个正整数a，b:");  **int** n1=in.nextInt();  **int** n2=in.nextInt();  **int** b=0;  **if**(n1==n2)System.***out***.print("公因数是"+n1);  **else** {  **int** m;  **if**(n1>n2) {  m=n2;n2=n1;n1=m;}  **for**(b=n1;b>1;b--) {  **if**(n1%b==0&&n2%b==0) System.***out***.print("公因数是："+b);}  }  }  }  **5.15**  **import** java.util.\*;  **public** **class** 5.15 {  **public** **static** **void** main(String[]arges){  Scanner in=**new** Scanner(System.***in***);  **char** y=33;  **int** x=0;  **for**(**int** i=33;i<127;i++) {  x++;  **if**(x%10==0) System.***out***.print("\n");  System.***out***.print(y+"\t");  y++;  }    }    }}  **5.16**  **import** java.util.\*;  **public** **class** 5.16 {  **public** **static** **void** main(String[]arges){  Scanner in=**new** Scanner(System.***in***);  System.***out***.print("请输入一个整数：");  **int** a=in.nextInt();  **for**(**int** b=2;b<=a;b++) {  **while**(a%b==0) {  a=a/b;  System.***out***.print(b+" ");  }  }  }    }  **5.17**  **import** java.util.\*;  **public** **class** test {  **public** **static** **void** main(String[]arges){  Scanner in=**new** Scanner(System.***in***);  System.***out***.print("请输入1-15之间任意一位整数：");  **int** a=in.nextInt();  **for**(**int** i=1;i<=a;i++) {  **for**(**int** j=0;j<a-i;j++) {  System.***out***.print(" ");  }  **for**(**int** m=i;m>0;m--) {  System.***out***.print(m);  System.***out***.print(" ");  }  **for**(**int** n=2;n<=i;n++) {    System.***out***.print(n);  System.***out***.print(" ");    }  System.***out***.print("\n");  }    }    }  **5.18**  **import** java.util.\*;  **public** **class** test {  **public** **static** **void** main(String[]arges){  Scanner in=**new** Scanner(System.***in***);  **for**(**int** i=1;i<=6;i++) {    **for**(**int** h=1;h<=i;h++)  System.***out***.print(h+" ");    **for**(**int** k=i;k<=12-i;k++)  System.***out***.print(" ");    **for**(**int** j=1;j<=7-i;j++)  System.***out***.print(j+" ");    **for**(**int** k=1;k<=6;k++)  System.***out***.print(" ");    **for**(**int** m=i;m>0;m--)  System.***out***.print(m+" ");    **for**(**int** k=1;k<=2\*i;k++)  System.***out***.print(" ");    **for**(**int** n=1;n<=7-i;n++)  System.***out***.print(n+" ");        System.***out***.print("\n");  }    }    }  **5.24**  **import** java.util.\*;  **public** **class** 5.24 {  **public** **static** **void** main(String[]arges){  Scanner in=**new** Scanner(System.***in***);  **double** sum=0;  **for**(**int** a=1,b=3;a<98&&b<100;a+=2,b+=2) {  sum=sum+(**double**)a/b;  **if**(a==97)  System.***out***.println(sum);  }  }  }  **5.26**  **import** java.util.\*;  **public** **class** test {  **public** **static** **void** main(String[]arges){  Scanner in=**new** Scanner(System.***in***);  **while**(**true**) {  **double** sum=1;  System.***out***.print("请输入数值i:");  **int** i=in.nextInt();  **for**(**int** a=1;a<=i;a++) {  **double** k=1;  **for**(**int** b=a;b>0;b--) {  k=k\*(**double**)1/b;  **if**(b==1) sum=sum+k;  **if**(a==i&&b==1)  System.***out***.println("e="+sum);  }  }  }  }  }  **5.29**  **import** java.util.\*;  **import** java.awt.\*;  **public** **class** test {  **public** **static** **void** main(String[]arges){  Scanner input=**new** Scanner(System.***in***);  System.***out***.print("Enter a year :");  **int** year=input.nextInt();  System.***out***.print("Enter the first day of the year is a few weeks :");  **int** week=input.nextInt();  String M=**null**;  **int** mouth;  **int** W;  **int** count=0;  **boolean** LeapYear=(year%4==0&&year%100!=0)||(year%400==0);  **for**(mouth=1;mouth<=12;mouth++){  **if**(mouth==1){  M="January";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=31;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }  **else** **if**(mouth==2){  W=(31%7+week)%7;  week=W;  M="February";  **if**(LeapYear){  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=29;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else**{  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=28;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }  }  **else** **if**(mouth==3){  **if**(LeapYear){  W=(29%7+week)%7;  week=W;  M="March";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=31;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }  **else**{W=(28%7+week)%7;  week=W;  M="March";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=31;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }  }  **else** **if**(mouth==4){  W=(31%7+week)%7;  week=W;  M="April";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=30;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else** **if**(mouth==5){  W=(30%7+week)%7;  week=W;  M="May";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=31;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else** **if**(mouth==6){  W=(31%7+week)%7;  week=W;  M="June";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=30;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else** **if**(mouth==7){  W=(30%7+week)%7;  week=W;  M="July";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=31;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else** **if**(mouth==8){  W=(31%7+week)%7;  week=W;  M="August";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=31;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else** **if**(mouth==9){  W=(31%7+week)%7;  week=W;  M="September";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=30;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else** **if**(mouth==10){  W=(30%7+week)%7;  week=W;  M="October";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=31;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else** **if**(mouth==11){  W=(31%7+week)%7;  week=W;  M="November";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=30;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();  count=0;  }**else** **if**(mouth==12){  W=(30%7+week)%7;  week=W;  M="December";  System.***out***.println("\t\t "+M+"\t"+year);  System.***out***.println("----------------------------------------------------");  System.***out***.println("Sun"+"\t"+"Mon"+"\t"+"Tue"+"\t"+"Wed"+"\t"+"Thu"+"\t"+"Fri"+"\t"+"Sat");  **for**(**int** j=0;j<week;j++){  System.***out***.print("\t");  }  **for**(**int** i=1;i<=7-week;i++){  **if**(i%7==0){  System.***out***.println(i);  }**else**  System.***out***.print(i+"\t");  }  System.***out***.println();  **for**(**int** k=(7-week+1);k<=31;k++){  count++;  **if**(count%7==0){  System.***out***.println(k);  }**else**  System.***out***.print(k+"\t");  }  System.***out***.println();count=0;  }  }    }  } |
| 调  试  过  程  及  实  验  结  果 | **5.14**  **5.15**  **5.16**  **5.17**    **5.18**  **5.24**    **5.26**  **5.29** |
| 总  结 | 无形之刃  最为致命 |
| 附  录 | 《JAVA语言程序设计》（基础篇）  P165-167 |