

流程控制实验报告

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第一部分

1.1 第三题

1.1.1 String args[]的含义

String args[]或者String[] args表示给主方法传一个字符串数组。
而args是一个字符串数组的变量名，不是关键字，
是arguments的缩写，只是一个默认名，一般都习惯性照写。

1.1.2 程序的执行结果

第一个参数是：徐宇奇
第二个参数是： 320190902531

1.2 第四题

1.2.1 请解释循环控制结构

循环控制变量i从0开始到20，共执行20次，循环输出变量“中”

1.2.2 请解释语句"int 中='中';"的含义

定义整型变量“中”，并进行赋值‘中’，即赋值相应的编码

第二部分 填空实验

2.1 第一题

代码如下：

```
package lesson1;
import java.util.*;
public class InputDouble {
    public static void main(String[] args){
        double a,b,c;
        Scanner reader = new Scanner(System.in);
        System.out.println("Enter a float number from the keyboard: ");
        a = reader.nextDouble();
        b=a*a;
        c=a*a*a;
        System.out.println(b);
        System.out.println(c);
    }
}
```

运行结果如下：

```
"C:\Program Files\Microsoft\jdk-17.0.2.8-hotspot\bin\java.exe" "-javaagent:C:\Program Files\Microsoft\jdk-17.0.2.8-hotspot\bin\javaagent.jar"
Enter a float number from the keyboard:
1.1
1.21000000000000002
1.33100000000000004

Process finished with exit code 0
```

2.2 第二题

代码如下：

```
package lesson1;
import java.util.*;
public class GuessNumber {
    public static void main(String[] args) {
        System.out.println("Guess the number between 1 and 100");
        Scanner sc = new Scanner(System.in);
        int number = (int) (Math.random() * 100) + 1;
        int myGuess = 0;
        int guessCount = 1;
        Scanner reader = new Scanner(System.in);
        System.out.println("Enter your guess: ");
        myGuess = reader.nextInt();
        while (myGuess != number) {
            if (myGuess > number) {
                System.out.println("Your guess is too high");
                guessCount ++;
                myGuess = reader.nextInt();
            }else if (myGuess < number) {
                System.out.println("Your guess is too low");
                guessCount ++;
                myGuess = reader.nextInt();
            }
        }
        if(guessCount<4){
            System.out.println("You are a genius!");
        }else if (guessCount>8){
            System.out.println("You are a loser!");
        }else {
            System.out.println("You are a good guesser!");
        }
    }
}
```

运行结果如下：

```
"C:\Program Files\Microsoft\jdk-17.0.2.8-hotspot\bin\
Guess the number between 1 and 100
Enter your guess:
50
Your guess is too low
75
Your guess is too high
65
Your guess is too low
70
Your guess is too low
73
Your guess is too high
72
You are a good guesser!

Process finished with exit code 0
|
```

第三部分 设计实验

3.1 第一题 斐波那契数列

设计思路

斐波那契数列又被称为黄金分割数列，指的是这样的—个数—列：1,1,2,3,5,8,13,21,34....，它有如下递推的方法定义： $F(1)=1, F(2)=1, F(n)=F(n-1)+F(n-2) (n \geq 2, n \text{ 是正整数})$ 。本次使用闭包运算保存数

设计代码

```
package lesson1;
public class Fibonacci {
    public static void main(String[] args){
        int a = 1;
```

```

    int b = 1;
    int c = 0;
    int i = 0;
    while(i < 20){
        System.out.println(a);
        c = a + b;
        a = b;
        b = c;
        i++;
    }
}
}

```

运行结果

The screenshot shows the IntelliJ IDEA IDE with a Java project named "Java Course Design". The code in the editor is a Fibonacci sequence generator. The Run window displays the output of the program, which prints the first 20 Fibonacci numbers. The terminal shows the command used to run the program.

```

Run: Fibonacci
"C:\Program Files\Microsoft\jdk-17.0.2-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2021.3.2\lib\idea_rt.jar=59964:C:\Program Files\JetBr
1
1
2
3
5
8
13
21
34
55
89
144
233
377
610
987
1597
2584
4181
6765

Process finished with exit code 0

```