
第十四周实验：RandomAccessFile 类使用

一、实验目的

1. 理解掌握 RandomAccessFile 类的原理
2. 掌握 RandomAccessFile 类构造函数和方法的使用
3. 用 RandomAccessFile 类进行简单应用编程

二、具体要求

- 1、调试并运行下列程序，并用注释逐行解释每一行代码作用与功能。

```
import java.io.RandomAccessFile;
public class RandomFileTest {
    public static void main(String[] args) throws Exception{
        Employee e1 = new Employee("张强", 23);
        Employee e2 = new Employee("李飞", 24);
        Employee e3 = new Employee("王敏", 25);
        RandomAccessFile ra = new RandomAccessFile("d:\\employee.txt", "rw");
        ra.write(e1.name.getBytes());
        ra.writeInt(e1.age);
        ra.write(e2.name.getBytes());
        ra.writeInt(e2.age);
        ra.write(e3.name.getBytes());
        ra.writeInt(e3.age);
        ra.close();
        RandomAccessFile raf = new RandomAccessFile("d:\\employee.txt", "r");
        int len = 8;
        raf.skipBytes(12);
        System.out.println("第二个员工信息: ");
        String str = "";
        for (int i = 0 ; i < len ; i++){
            str = str + (char)raf.readByte();
        }
        System.out.println("name:" + str);
        System.out.println("age:" + raf.readInt());
        System.out.println("第一个员工信息: ");
        raf.seek(0);
```

```

        str = "";
        for (int i = 0 ; i < len ; i++){
            str = str + (char)raf.readByte();
        }
        System.out.println("name:" + str);
        System.out.println("age:" + raf.readInt());
        System.out.println("第三个员工信息: ");
        raf.skipBytes(12);
        str = "";
        for (int i = 0 ; i < len ; i++){
            str = str + (char)raf.readByte();
        }
        System.out.println("name:" + str);
        System.out.println("age:" + raf.readInt());
        raf.close();
    }
}

class Employee {
    String name;
    int age;
    final static int LEN = 8;
    public Employee(String name , int age) {
        if(name.length() > LEN){
            name = name.substring(0 , 8);
        } else {
            while (name.length() < LEN){
                name = name + "\u0000";
            }
            this.name = name;
            this.age = age;
        }
    }
}

```

三、将实验源代码打包为“学号+姓名+第十四周实验”命名提交给科代表。