Java实验4

实验4：文件操作

学习目标：

- 文件打开和关闭
- 对文件内容进行简单操作

学习内容

- 使用Scanner打开文件，用法如下：

  ```
  Scanner input = new Scanner(new File("example.txt"));
  ```

- token的理解

  ```
  welcome...to the matrix.
  ```

  这段文字中有三个token

  ```
  in fourteen-hundred 92
  columbus sailed the ocean blue :)
  ```

  这段文字中有九个token

- （任务1：类名称TestScanner）创建文件readme.txt，内容如下

  ```
  6.7  This file has
  several input
  LINES!

     10 20
  ```

  如下代码输出是什么？

```
Scanner input = new Scanner(new File("readme.txt"));
System.out.println(input.next());  //
System.out.println(input.next());  //
System.out.println(input.next());  //
```

如下代码的输出又是什么？

```
Scanner input = new Scanner(new File("readme.txt"));
System.out.println(input.nextDouble());  //
System.out.println(input.nextDouble());
```

如下代码的输出呢？

```
Scanner input = new Scanner(new File("readme.txt"));
while (!input.hasNextInt()) {
    input.next();
}
System.out.println(input.nextInt());
```

- （任务2）文件拷贝，要求：

  i. 类名称为FileCopy
  ii. 命令行使用方式为，`java FileCopy test.txt newfile.txt`，将test.txt文件内容拷贝到 newfile.txt中去
  iii. 数据示例文件test.txt如下：

```
Some say thy fault is youth, some wantonness;
Some say thy grace is youth and gentle sport;
Both grace and faults are loved of more and less;
Thou makest faults graces that to thee resort.
As on the finger of a throned queen
The basest jewel will be well esteem'd,
So are those errors that in thee are seen
To truths translated and for true things deem'd.
How many lambs might the stem wolf betray,
If like a lamb he could his looks translate!
How many gazers mightst thou lead away,
If thou wouldst use the strength of all thy state!
But do not so; I love thee in such sort
As, thou being mine, mine is thy good report.
```

提示

1. 命令行参数的读取，使用main函数的String[] args，程序需要检查参数是否正确

2. 打开文件时，依次可以使用File/FileInputStream/InputStreamReader/BufferedReader类

3. 写入文件时，将2中的Input改为Output，Reader改为Writer即可

4. 读文件时，可以通过readline函数的返回值是否为null来检测是否到达文件结尾

5. 注意要处理各种异常情况