九、输入输出实现文件的复制’

1.节点流，

字符流替换为：FileReader **char**[] b = **new** **char**[20];

**public** **static** **void** copyFile(String src , String dest) {

//提供读入，写出文件

File file1 = **new** File(src);

File file2 = **new** File(dest);

//提供相应的流

FileInputStream fis = **null**;

FileOutputStream fos = **null**;

**try** {

fis = **new** FileInputStream(file1);

fos = **new** FileOutputStream(file2);

**byte**[] b = **new** **byte**[20];

**int** len ;

**while** ((len = fis.read(b)) != -1) {

fos.write(b, 0, len );

}

} **catch** (Exception e) {

e.printStackTrace();

} **finally** {

**if** (fos != **null** ) {

**try** {

fos.close();

fos.flush();

} **catch** (IOException e) {

e.printStackTrace();

}

}

**if** (fis != **null** ) {

**try** {

fis.close();

} **catch** (IOException e) {

e.printStackTrace();

}

}

}

}

2.缓冲流—上面升级版，把节点流包入缓冲流

**public** **static** **void** copyFileBuffered(String src , String dest) {

//提供读出和写出文件

File file1 = **new** File(src);

File file2 = **new** File(dest);

//创建节点流

FileInputStream fis = **null**;

FileOutputStream fos = **null**;

//定义缓冲流，并将节点流放入

BufferedInputStream bis = **null**;

BufferedOutputStream bos = **null**;

**try** {

fis = **new** FileInputStream(file1);

fos = **new** FileOutputStream(file2);

bis = **new** BufferedInputStream(fis);

bos = **new** BufferedOutputStream(fos);

//具体实现文本复制

**byte**[] b = **new** **byte**[1024];

**int** len ;

**while** ((len = bis.read(b)) != -1) {

bos.write(b, 0, len );

bos.flush();

}

} **catch** (Exception e) {

e.printStackTrace();

} **finally** {

**if** (bos != **null** ) {

**try** {

bos.close();

} **catch** (IOException e) {

e.printStackTrace();

}

}

**if** (bis != **null** ) {

**try** {

bis.close();

} **catch** (IOException e) {

e.printStackTrace();

}

}

}

}

3.缓冲流—readLine读取一行

**public** **static** **void** copyFileBuffered(String src , String dest) {

//提供读出和写出文件

File file1 = **new** File(src);

File file2 = **new** File(dest);

//创建节点流

FileReader fr = **null**;

FileWriter fw = **null**;

//定义缓冲流，并将节点流放入

BufferedReader br = **null**;

BufferedWriter bw = **null**;

**try** {

fr = **new** FileReader(file1);

fw = **new** FileWriter(file2);

br = **new** BufferedReader(fr);

bw = **new** BufferedWriter(fw);

//具体实现文本复制

String str = **null**;

**while** ((str = br.readLine()) != **null**) {

bw.write(str);

bw.newLine(); //换行

bw.flush();

}

} **catch** (Exception e) {

e.printStackTrace();

} **finally** {

**if** (bw != **null** ) {

**try** {

bw.close();

} **catch** (IOException e) {

e.printStackTrace();

}

}

**if** (br != **null** ) {

**try** {

br.close();

} **catch** (IOException e) {

e.printStackTrace();

}

}

}

}