

Tutorial of File

Designed by ZHU Yueming in 2021. Nov. 1st. Add File read and write demo

Objective

- Learn to read data from a File
- Learn to write data into a File

Build the demo

- Step1. Drag `GobangChess.java`, `GobangTest.java`, `FileUtil.java`, `AdvancedFileUtil.java`, `OriginalFileUtil.java` into one **generate sources root** in your IntelliJ IDEA project.
- Step2. Create a txt file named `chessboard.txt` in the root path of your IntelliJ IDEA project, then add following content. In the demo, this txt file represents a stored chessboard you need to load.

chessboard.txt

```
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,1,2,1,0,0,0,0,0
0,0,0,0,1,2,0,0,0,0,0
0,0,0,2,1,2,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
```

- Step3. After that, check your project structure.
 - If you have build a module:



- If you haven't build a module:



- Step4. Run GobangTest.java, then check the output and the new file named `new_chessboard.txt` created in this project catalog.

After running, the new_chessboard.txt would be:

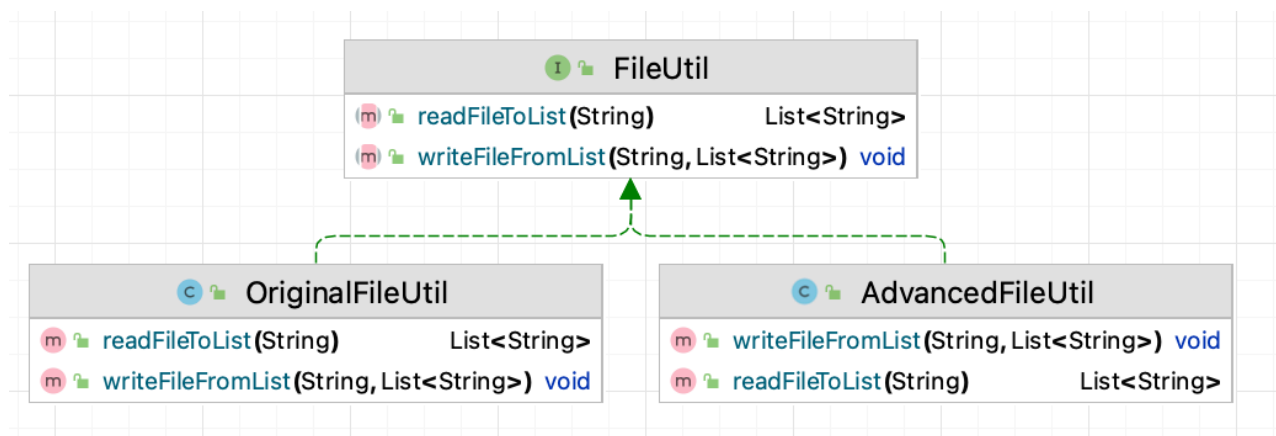
```

0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,2,0,0,0,0,0,0,0
0,0,0,1,2,1,0,0,0,0,0
0,0,0,1,1,2,0,0,0,0,0
0,0,0,2,1,2,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0

```

File Read and Write:

Those three java classes describes two different ways of File reading and File writing.



- **OriginalFileUtil:** It provides an original way to read and write a file. If your JDK is lower than 11 version, you should only use this way to do file operation. In this way, we use:
`FileReader` to read text from character files using a default buffer size.
`FileWriter` to write text to character files using a default buffer size.
- **AdvancedFileUtil:** It provides a more simple way to read and write a file, but your the version of your JDK should be equalled or higher than 11.