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# About

The task is accomplished in the following logical steps:

1. The The File Specifications have been loaded into a FileSpecification object.

**Note:** The File specifications have not been statically used in the application, rather a **Configurable & Reusable approach** has been taken(parameter fileSpecificationConfig in input.properties file). Each field has been loaded as a (fieldname,start position,end position) pair to enable to read each field from the input transactions file.

This means that this section of the code can be **reused** even if the file specification changes; or it can be reused to load flat files for varied specifications, for which the layout needs to be defined/altered in csv format in the configuration file.

1. This FileSpecification has been used to load the input transactions file into a InputFIle object.
2. Thereafter, based upon the desired report(as configured in input.properties), a Daily Summary Report or Transaction Amount report will be generated. The same codebase(classes,methods) have been used to generate both of these report, thereby displaying code **reusability**.

# How to Build the software

1. Create a new TradingReportApplication directory
2. Create the following sub-directories(no capitals in directory names):
   1. code
   2. build
   3. resources
   4. reports
   5. Libraries
   6. inputfile
3. Copy all the java files & Manifest.mf into code
4. Copy the input transaction file into inputfile
5. Copy the log4j.jar into the directory - libraries
6. Copy the following files in the resources directory:
   1. FileSpecification.config
   2. Input.properties
   3. log4j.properties
7. Compile the java files:

javac -cp ./libraries/\*.jar ./code/\*.java -d ./build/

1. Navigate to the build directory: cd build
2. Execute:

tar xf ../libraries/log4j-1.2.17.jar

1. Navigate out of the build directory: cd ..
2. Create the jar file:

jar cvfm TradingReport.jar ./Code/Manifest.mf -C ./build/com/sarabjeet/task/ .

# How to Use the software

1. Create an executable file(or a .bat file for windows) and copy the following into the file:

java -jar TradingReport.jar ./resources/input.properties

1. In order to use the software, please execute the file created in the previous step. Alternatively, the following command can be executed directly on command line:

java -jar TradingReport.jar ./resources/input.properties

1. The report would be generated in the reports directory.

Note: Following things should be in order before the application can be used:

1. In order to generate the report, an input properties file must be passed as a parameter.

2. The input properties file should contain the following information:

1. inputTransactionsFile = Path to Input file which contains today's transactions

2. fileSpecificationConfig = Path to File Specification Config

3. typeOfReport = Type of Report(S for Daily Summary Report, T for Total Transaction Amount Report)

4. ReportDestinationPath = Path at which desired Report is created.

Example:

java TradingReportApplication ./resources/input.properties

# Troubleshooting

|  |  |  |
| --- | --- | --- |
| S.No | Error/Failure | Remedy |
| 1 | ERROR: Input Properties doesn't exist or is inaccesible. Please try again with valid Input Properties file. | The input.properties file does not exist in the resources directory. Either an incorrect path has been provided, or the file path is inaccessible. |
| 2 | ERROR: The input.properties file is empty. Please review the file and try again. | The input.properties file is an empty file. The file needs to be fixed. Sample is attached with the submitted code. |
| 3 | ERROR: The FileSpecification.config file is empty. Please review the file and try again. | The input.properties file is an empty file. The file needs to be fixed. Sample is attached with the submitted code. |
| 4 | FATAL ERROR: File Specification Config file doesn't exist or is inaccesible. Please try again with a valid file. | The file does not exist in the resources directory. Either an incorrect path has been provided for **fileSpecificationConfig** parameter in the input.properties file, or the file path is inaccessible. |
| 5 | ERROR: The Input Transactions file is empty. Please review the file and try again. | The input.properties file is an empty file. The file needs to be fixed. Sample is attached with the submitted code. |
| 6 | FATAL ERROR: Input Transactions file doesn't exist or is inaccesible. Please try again with a valid file.\" | The file does not exist in the resources directory. Either an incorrect path has been provided for **inputTransactionsFile**  parameter in the input.properties file, or the file path is inaccessible. |