

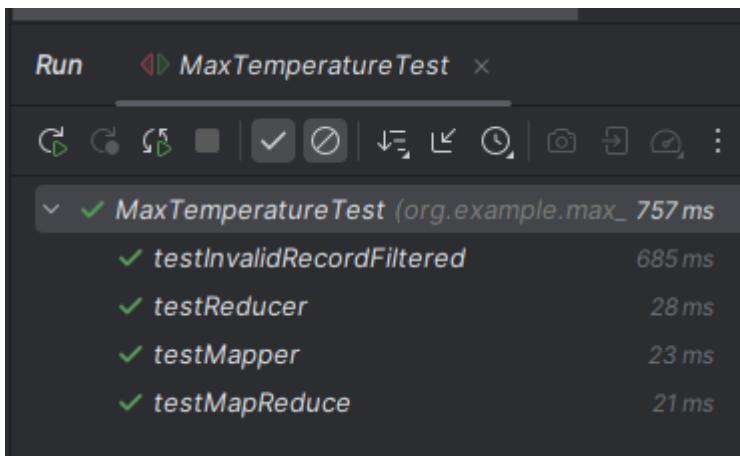
Documentation of results

The structure of the project is as follows:

The **Record.java** file offers a way of parsing the raw data file. Using the constructor, all necessary information for this exercise is initialized.

RecordMapper and **MaxTemperatureReducer** does typical Hadoop MapReduce work. While RecordMapper already filters for only valid temperatures, MaxTemperatureReducer searches for the maximum temperature per year. At the end, the maximum temperature is converted to degrees Celsius as only converting the maximum is sufficient.

Tests are provided in the **MaxTemperatureTest** class. While Mapper and Reducer are tested individually and in combination, another test also assures that only valid records are processed.



As an addition, results were also compared by executing provided bash script. The screenshot below shows, that considering the bash script does not convert to degrees Celsius, both solutions provide the same result.

```
bash-4.2$ hadoop fs -get output/exercise_1/part-r-00000 /home/hadoop/result
bash-4.2$ cat /home/hadoop/result
1901    31.7
1902    24.4

→ Exercise_1 git:(main) ✘ ./calc_solutions.sh
1901    317
1902    244
→ Exercise_1 git:(main) ✘
```