

House Insurance Premium Exercise Notes

The solution provides implementation of *HouseInsuranceService* that calculates premium for a given postcode, number of bedrooms and presence of thatched roof.

Resources:

house-insurance.properties: to feed in base premium, extra premium percentage and limit for number of bed rooms, rather than hardcoding them.

csv-input.txt: is the CSV file input used in the demo that covers all the scenarios. Edit this file if you have any additional scenario you would like to check and then run the Main class.

Util:

Utility classes are created under *uk.co.fundingxchange.util* package for purpose of file reading, input processing and properties file reading.

Test directory:

Junit Test cases have been written for *HouseInsuranceServiceImpl* and *HouseInsuranceInputProcessor* providing a good coverage, under *test* directory.

Unimplemented:

The following interfaces are not implemented:

- *FloodAreaChecker*
- *SubsidenceAreaChecker*

However, mock implementations for these are provided by means of Lambda expressions in *HouseInsuranceServiceImpl*

For demo purpose, postcode containing:

- 'SS' represents subsidence area,
- 'HR' represents High Risk flood area and
- 'MR' represents Medium Risk flood area.

Implemented:

HouseInsuranceServiceImpl

Approach:

Test driven approach with importance to maintenance and possible enhancement. E.g. the logic for premium calculation may change in future. Nothing has been hardcoded anywhere. Replace the @TODO blocks as and when necessary. E.g. if the unimplemented services mentioned above become available, replace the Lambda expressions (marked as @TODO) with those implementations accordingly.

The type of input may change. E.g. an input could just be a single house insurance input provided as string, or compound input such as list of various house insurance info in a CSV, or JSON array or list of some objects etc.

Input: A csv file '*csv-input.txt*' under '*resources*' directory, containing various house insurance info is supplied as input. *HouseInsuranceInputProcessor* validates and processes this file. To display the output, please run the Main class.