System Requirements: Congratulations!

***Actual Coding Work***

The system will allow property owners to register each of their properties and to pay the property tax due for the properties.

-creation of objects & changing their constructors

Property tax is a yearly tax on a property and it is due to be paid on Jan 1st each year.

-double value updated each year

Property owners should be able to view a list of their properties and the tax that is due currently per property and also any overdue tax (hasn’t been paid for a previous year) and be able to query specific previous years and get a balancing statement for any particular year or property.

-getMethods depent on year (maybe different arrays? Search by year goes through one array? Search by property goes through all arrays)

The system should maintain a record of all payments of the property charge on a yearly basis.

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All records should be held in csv files.

A property must be registered on the system before the property tax can be paid.

-Object must exist before changes can be made

A property owner can register a property.

-User makes the objects

The following information must be recorded for a property: (constructors)

•Property owner(s) (String? Maybe StringArray?)

•Address (String)

•Postcode/Eircode (String)

•estimated market value (double)

•location category (City/Large town/Small town/Village/Countryside)

(strings? Maybe chars?)

•Principal private residence (yes/no) (boolean)

The property tax is calculated based on the following combinations:

•a fixed cost of €100 (has to be double as added to doubles)

•a market value tax based on the following rates:,..

(set of switch statements? If else?)

|  |  |
| --- | --- |
| Property Value | Rate |
| Up to 150,000 | 0 |
| 150,000 -400,00 | . 01% |
| 400,001 -650,000 | .02% |
| Above 650,000 | .04% |

* a location category tax based on the following rates:

(checks location category. If statements? Separate method?)

|  |  |
| --- | --- |
| Location | Charge |
| City | €100 |
| Large town | €80 |
| Small town | €60 |
| Village | €50 |
| Countryside | €25 |

•An additional flat charge of €100 if the property is not the principle private residence of the owner.(Boolean)

•Apply a 7% penalty, compounded for each year that a property tax is unpaid. (Boolean variable that’s checked each year)

A property owner will be able to query the system to view payments made for all their owned properties.

(search by property owner checks all arrays)

The management should be able to do the following:

•Get property tax payment data for any property - search by property checks all arrays

•Get property tax payment data for any property owner - search by property owner checks all arrays

•Get a list of all overdue property tax for a particular year -checks what has overdue tax and returns?

•Get property tax statistics for a particular area based on the routing key of the Eircode (e.g. total tax paid, average tax paid, number and percentage of property taxes paid).-series of different methods?

•Investigate the impact of possible changes to the rates and levies contributing to the property tax to determine how the revenue collected would change. -everything is a variable to be changed via a gui/interface

A command line interface and a GUI should be provided.

The system should be designed in a way that makes it easy to replace one interface with the other.

Your company is conscious that the developed system should be adaptable to other property tax calculation rules (for example in other countries) and thus want you design the system so that is easy to substitute the tax calculator outlined here with one that may be developed in the future.