



CERGY PARIS
UNIVERSITÉ

Bank and home loans



Python :
Object
Oriented
Programming

Summary

Project (20 points)

The instructions

Help.....

1 –IT Project presentation

dataset : « [customers.csv](#) » . You have available this example of dataset. Keep in mind that each information could be different : names, amount borrowed, ...

Target IT : According to your python knowledge, especially in object oriented, the bank of the Vexincontacts you to develop a new IT application based on the Python technology.

The background of the project is as follows. At the end of each week (on friday morning), the bank's departements receive all the requests of brokers for new mortgage.

Your computer application calculates the mortgage loan period and also give a final opinion on each request. The bank's vision is simple and clear : if the loan period is higher than 30 years, then mortgage situation is too risky, in other words, the answer is no from the bank to the broker and final customer.

2 -The instructions

Instructions : There are not many rules to respect. They are three in number :

- I. Your program contains 4 classes : a first one named « Dataset() », that manages data from the CSV (« Comma Separated Values ») file. There is only one reason to change the code of that class, data. A second class « Calculation() » to make the required calculations, and, two others classes, a third class to save all results in a text file (csv file or txt file). The name of this class is « Save() ». The last class, Application(), creates a user friendly interface. Its role is to build an interface for the final user.
- II. You must create a Graphical User Interface (GUI) with Tkinter package, free to you to design it as you wish.
- III. Don't forget to test your implementation because your program has to work with any dataset which respects the same format as the starting file, « customers.csv ».

Please note that your program can appear in one or various modules. Remember, in Python, modules are simply files with the « .py » extension. These modules contain Python code that can be imported inside another Python program.

3 - Help

Ressources : You'll find attached one document about the Tkinter package. Before coding, it's **recommended** to read it :

- **Package, Tkinter**

➤ *Tkinter.PDF*