Create an object-oriented program (the inheritance must be applied here) that allows user to manage (view, add, reset, pay) the bank loans information that he/she is the representative person.

For a common bank loan, there are some data constraints as below:

* The amount borrowed must be positive and less than or equal to 1.000.000.000 VND
* The term must be positive and <=365 days
* Interest rate must be less than 15%

There are two special types of loan account that the system needs to handle, the personal loan and the investment loan:

* In the personal loan, the amount borrowed must be less than or equal to 100.000.000 VND, the term must be <= 30 days, and the interest rate must be between 5% and 15%
* In the investment loan, the amount borrowed must be <= 500.000.000 VND, the term must be less than or equal to 90 days, and the interest rate must be less than 18%

The application includes features as listed below. It would allow users to choose one of those features to handle when starting the application, when completing a feature, or when getting an error while in a feature progress. The user can also choose to exit the application.

* 1. View bank loans: the system prints current user’s loans (including loan date, loan type, and the loan status)
  2. View loan information: the system shows current user’s loans, ask user to choose the loan (by inputting loan date) and then shows the detailed information of the selected loan
  3. Add bank loan: the system allows users to input and store a new loan (including loan date, loan type, loan amount, the term of the loan, the interest rate) into the system. The input loan date must not exist in the user’s loans list yet.
  4. Reset a loan: the system shows current user’s bank loans, ask user to choose the loan (by inputting loan date), then update the loan amount to the new value (gained by adding the up-to-date interest to the current amount) and the loan date to the current date accordingly.
  5. Pay a loan: the system shows current user’s loans, ask user to choose the loan (by inputting loan date) and enter the payment amount, then reset the borrowed amount by subtracting the entered amount from the need-to-pay amount (which is gained by adding the interest amount, counted to current date, to the current amount), and update the loan date to the current date. Besides, the system would de-activate (by change the loan status to de-activated) the selected loan in case the new loan amount is 0.