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User guide of the loan simulator

- *This document constitutes a user guide of our software application developed within the framework of the "Projet de synthèse" named BEM: "(Banque d'Echange Mutualiste)"*
- *This software allows a customer or a prospect to simulate a loan, to see the results of this loan under the shape of a redemption table and to print them. The results are also restored in the form of graphs. Finally, the software also allows to compare two scenarios of loan simulation.*
- *The recommendations can be directly consulted, but it's better to read beforehand this manual to understand better the utility and the purposes of the tool.*

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1. Purpose and design of the software

1.1. Purposes of the loan simulator

- The simulator of loan is used by the councilor who simulates the loan at the request of a customer (external or internal). The councilor collects the information supplied by the customer or loads (charges) them since the data base if the customer is already in the bank and proceeds to the simulation via a form.
- This form is used to fill the data and the councilor can resume later the simulation by modifying the parameters.
- The simulator allows to print the results of the simulation which can have several forms (graphs, tables) and under several angles by means of indicators.
- The simulator of loan also informs the customer of the amount of the interest rates, and the assurance allowing this last one to decide on the duration of the loan which goes to him (her).
- Finally, the simulator of loan treats essentially three various types of loans: real-estate loan, loan of consumption and professional loan.

1.2. Used IT tools

- Our software was developed in language Java. It works on all the personal computers under Windows 98 and superior versions, Linux and MacBook. The calculations are made by an available dedicated server in network on the same machine.

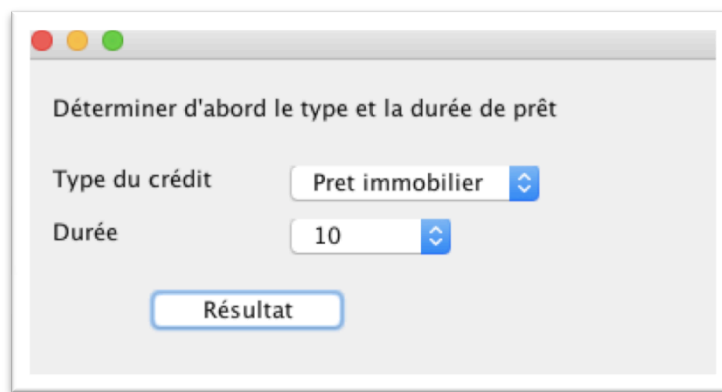
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- Besides the network part, Oracle is useful as working environment notably allowing a graphic management, the integration, the back-up copy and the restoration of data as well as the management of the rival accesses.

2. Determine the interest rates

2. 1. Selection of the rate

The S.I. has integrated an interface for the director to calculate the loan simulation.

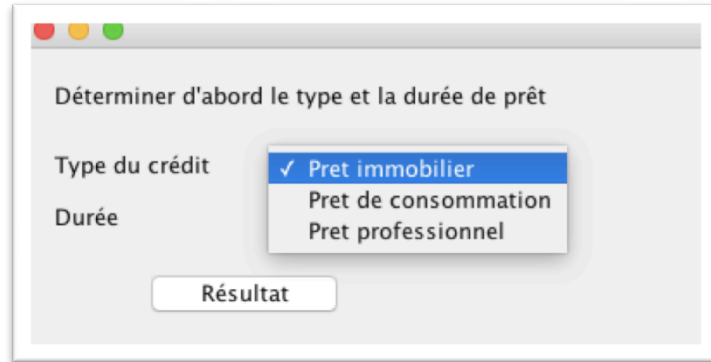


The screenshot shows a graphical user interface window with a title bar containing three colored buttons (red, yellow, green). The main content area has a light gray background and contains the following elements:

- A heading: "Déterminer d'abord le type et la durée de prêt"
- A label "Type du crédit" followed by a dropdown menu showing "Pret immobilier".
- A label "Durée" followed by a dropdown menu showing "10".
- A button labeled "Résultat" at the bottom.

First you accede to the application, you have a scrolldown list of the loan types. Choose the loan type that you want and the duration as well, a new frame will be displayed.

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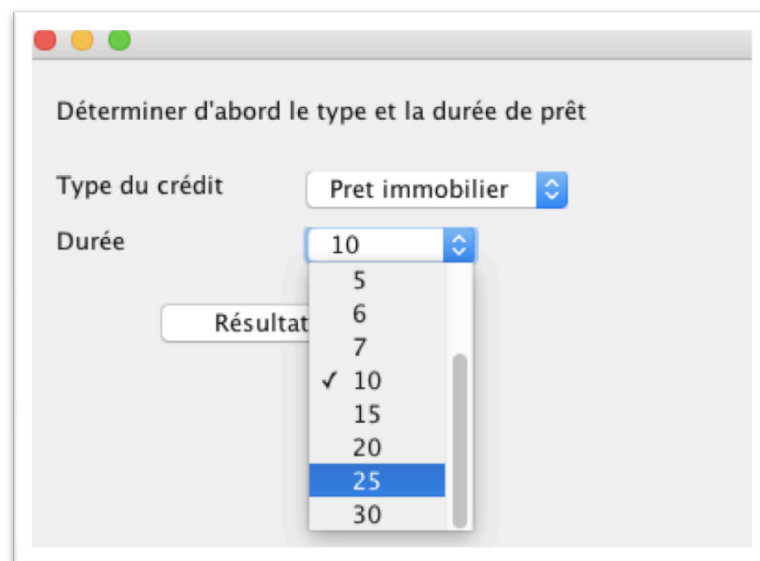
Déterminer d'abord le type et la durée de prêt

Type du crédit

- ✓ Pret immobilier
- Pret de consommation
- Pret professionnel

Durée

Résultat



Déterminer d'abord le type et la durée de prêt

Type du crédit

Pret immobilier

Durée

- 5
- 6
- 7
- ✓ 10
- 15
- 20
- 25
- 30

Résultat

To give you the adequate rate in order not to take big risks and lose money, you'll have to make some scenarios of the client profile. To get access to the second step, click on « **Résultat** »

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Donnez les informations personnelles du client

Revenu total: euros/mois

Charge total: euros/mois

Age: ans

Credit: euros/mois

Etat de santé: ☐ Bon ☐ Mauvais

Type contrat: (CDI, CDD, Autoentrepreneur)

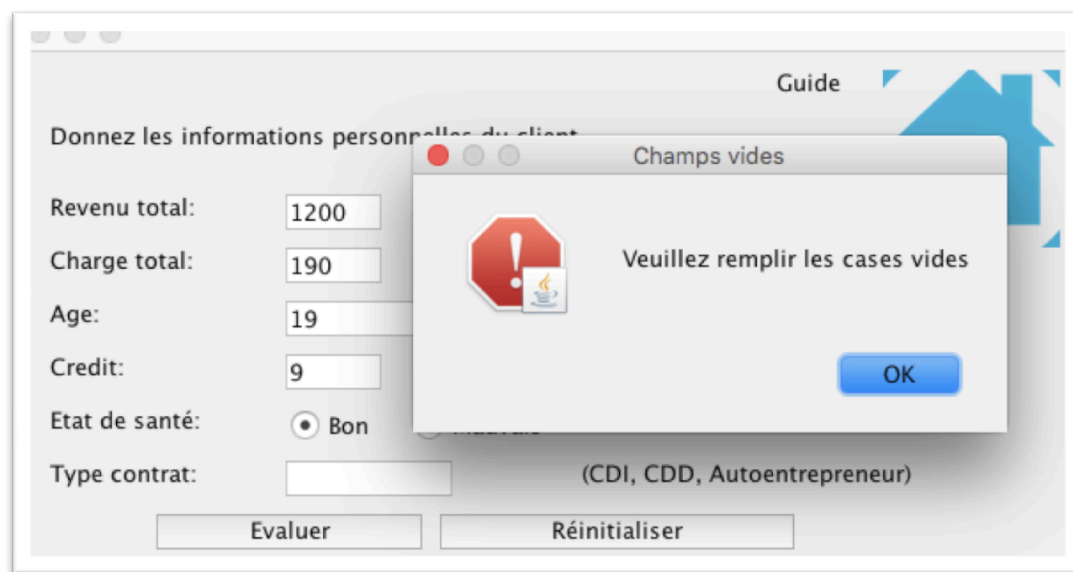
Now you can proceed to the edition of the client profile to see if the new rate that you consider is good or bad for the bank by clicking on the button

The screenshot below is the form that you'll have to complete in order to get the risks. Once you have finished to complete the fields, you may click on the button "**Evaluer**".

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- **Revenu total** : it's the salary per month of the client
- **Charge total** : it's to approximatively know how much money the client spends per month
- **Age** : it's the age of the client. Note that in this case, a client who wants a loan must be at least 18 years old
- **Credit** : it's to check if the client has credits in other banks and which amount
- **Etat de santé** : it's to check if the client is well-being or not
- **Type de contrat** : the purpose is to know the nature of the job contract of the client

If you forget to fill one field of the form, an error message will be displayed so that you'll make the correction.



The screenshot shows a web form titled "Donnez les informations personnelles du client" (Give the client's personal information). The form includes several input fields: "Revenu total:" with the value "1200", "Charge total:" with "190", "Age:" with "19", "Credit:" with "9", "Etat de santé:" with a radio button selected for "Bon", and "Type contrat:" which is empty. Below the form are two buttons: "Evaluer" and "Réinitialiser". A modal error dialog box titled "Champs vides" (Empty fields) is overlaid on the form. It contains a red octagonal warning icon with a white exclamation mark and the text "Veuillez remplir les cases vides" (Please fill in the empty boxes). An "OK" button is at the bottom right of the dialog. In the top right corner of the form, there is a "Guide" link and a blue arrow icon.


As well, each field has a format that you'll have to respect. Otherwise, a new pop-up will display to underline your mistake.

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Guide

Donnez les informations personnelles du client

Type de contrat


 Veuillez respecter le format indiqué

OK

Type contrat: 9 (CDI, CDD, Autoentrep

Evaluer Réinitialiser

2.2 Risks

Guide 

Donnez les informations personnelles du client

Revenu total: 1200 euros/mois

Charge total: 190 euros/mois

Age: 19 ans

Credit: 17 euros/mois

Etat de santé: ☒ Bon ☐ Mauvais

Type contrat: CDI (CDI, CDD, Autoentrepreneur)

Evaluer Réinitialiser

Taux référentiel de la maison-mère: 1.85
Taux d'endettement: 17.25 %
Restant à vivre: 1010
TRES BON client, nous vous proposons
comme taux: 1.8000001 pour avoir un bénéfice

Enregistrer

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And finally, the risks will be displayed in the text area at the bottom of the frame. Here, the profile type that is shown is an excellent one.

As information, you have the rate of the parent company, the first rate saved and calculated by the parent company and depending on the loan type. Then some calculation to determine the risks and finally the suggested rate for the concerned loan. You may make other scenarios by reinitializing the form . To do that, you click on « **Réinitialiser** ».

If the risks don't convinced you that you have made a good margin. You can return to the frame where you can set the rate interest.

Otherwise, you may definitively save the rate as the rate agency by clicking on « Enregistrer » , then choosing « OK » to confirm.

The screenshot displays a web application interface. In the background, a form titled "Donnez les informations personnelles du client" (Give the client's personal information) is visible. It contains the following fields and values:

- Revenu total: 1200 euros/mois
- Charge total: 10 euros/mois
- Age: 19 ans

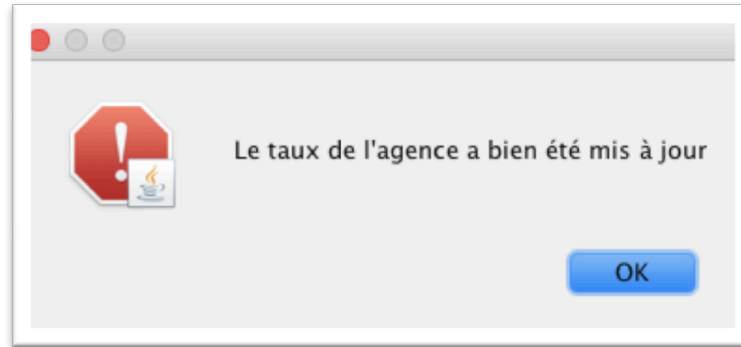
Below these fields, there are labels for "Cre", "Etat", and "Typ" which are partially obscured by a foreground dialog box.

In the foreground, a "Confirmation" dialog box is open. It features a small icon of a flame above a cup. The text inside the dialog reads: "Souhaitez-vous enregistrer ce taux : 1.8000001?". At the bottom of the dialog are two buttons: "Non" (No) and "Oui" (Yes).

Below the dialog box, within the main form's frame, the following text is visible:

Restant à vivre: 1190
TRES BON client, nous vous proposons
comme taux: 1.8000001 pour avoir un bénéfice

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This pop-up will be displayed to tell you that the rate is saved.

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