Context

You have the objective of establishing the credit strategy to reduce the credit risk of a company that grants weekly personal loans to a high risk segment of the market, which implies that within the requirements no collateral or guarantees are required since the prospect does not have them. Consider that the average market risk level is 14% after 26 weeks.

The company has granted its loans intuitively, which means that its own employees are the ones who determine whether it is feasible to grant a loan, the amount that can be lent and the term of the loan, based on calculations of disposable income and the feasibility visit at home; however, this implies a great risk and if the company continues in this line, it will be close to closure.

Specific objectives

1) Analyze the information provided in the attached bases (15 points)

a. Sales base: this is sales information from more than half a year ago and includes the following columns:

1) Requisition Number 2) Gender

3) Date of receipt of application 4) Type of home 5) Week

5) Week 6) Telephone

7) Date of Birth 8) Income\_Monthly 9) Age 10) Expenses\_Monthly

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11) Amount Requested 12) Marital\_Status

13) Final\_Status 14) Dep\_economics

15) Offer 32 weeks 16) Time\_inhabiting\_domicile (months)

17) Bid 42 weeks 18) StatusCode

19) Maximum Bid 20) Risk Level (loss after 26 weeks)

21) Branch 22) Gender

23) Credit Amount 24) Total Payment Amount

25) Weekly

b. Prospect base: this is information on prospects who applied for a loan and includes the following columns:

1) Branch 2) Age

3) Week 4) Gender

5) Prospect 6) Housing type

7) Offer 32 weeks 8) Telephone

9) Offer 42 weeks 10) Monthly Income

11) Maximum Offer 12) Monthly Expense

13) Amount Requested 14) Marital Status

15) Final Status 16) Dep\_economics

17) Date application received 18) Time\_inhabiting\_domicile (months)

19) Date of Birth

2) Generate a statistical model that allows us to evaluate the prospects in the future based on the results you observe in the database, you can use the model you consider most effective, for example: score, decision tree, segmentation, it is important that you justify how you determined its effectiveness. (20 points)

3) Once the model has been established, determine the credit strategy associated with the model, stating:

(15 points)

a. Segmentation by risk level in the groups you consider, for example: A, B, C.

b. Segment and/or characteristics of rejected prospects (if you have generated a scoring model you may consider the cut-off point).

c. Amount of loan authorized to segments not rejected.

d. Term of the loan authorized to the non-rejected segments.

4) Based on the model and strategy developed, indicate the impact on the organization, remember that it is necessary to compare current vs. expected data and be very clear on the benefits of this change (15 points)

a. Rejection rate.

b. Offers: total value and average value.

c. Risk level.

5) Generate a tool that allows the credit evaluation of the prospect in an automated way, the objective is that a user can access, enter the required data of a prospect and have a final offer displayed on a screen (15 points).