DEFAULT CREDIT CARD CLIENTS PREDICTION

CAPSTONE PROJECT PRESENTATION

Machine Learning Foundations Training

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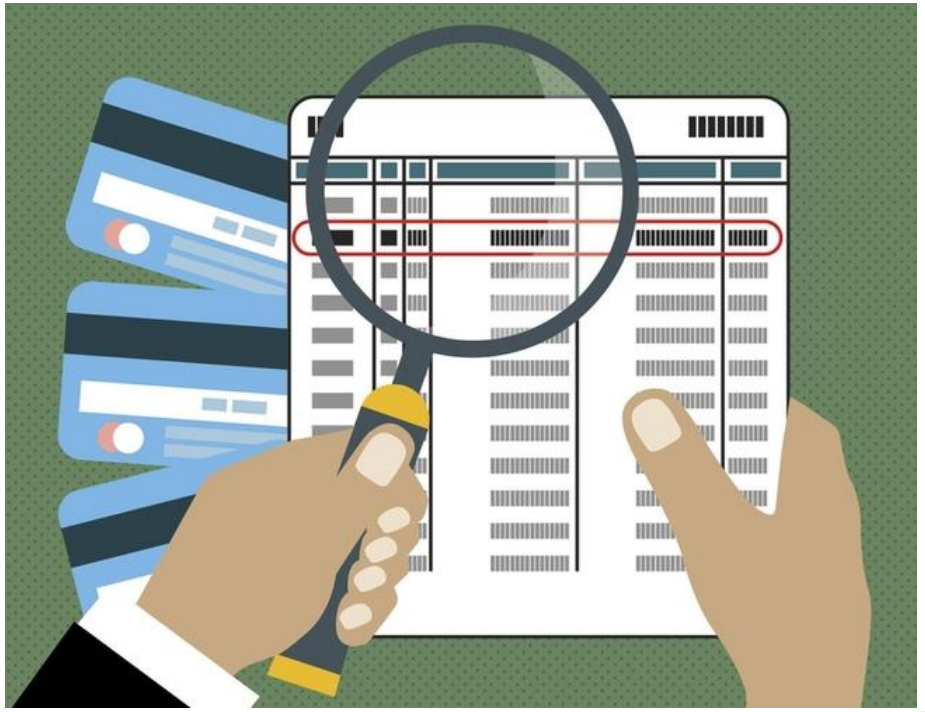

2022-11-20

Contents

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- ✓ Methodology (Solution Approach, Tools used)
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Introduction

- **Problem Definition:-** Predicting credit card clients who will default on their next month payment.
- Prediction need to be done based on demographic characteristics, past spending and repayment patterns.
- Helpful for banks which provide credit card facilities for Customers.
- Specifically useful to manage credit risks.
- Service need to be through API and also by submitting batch input as csv file.

Dataset

Attribute	Description
ID	Identifier for data entry
X1 (LIMIT_BAL)	Amount of the given credit (NT dollar): it includes both the individual consumer credit and his/her family (supplementary) credit. **→Numerical**
X2 (SEX)	Gender (1 = male; 2 = female). **→Categorical variable mapped to integers**
X3 (EDUCATION)	Education Level (1 = graduate school; 2 = university; 3 = high school; 4 = others). **→Categorical variable mapped to integers**
X4 (MARRIAGE)	Marital status (1 = married; 2 = single; 3 = others). **→Categorical variable mapped to integers**
X5 (AGE)	Age (year) →**Numerical**
X6 - X11 (PAY_0, PAY_2, PAY_3, PAY_4, PAY_5, PAY_6)	History of past payment. Derived from past monthly payment records (from April to September 2005) .X6 = the repayment status in September 2005; X7 = the repayment status in August 2005; . . .; X11 = the repayment status in April, 2005. The measurement scale for the repayment status is: -2: No consumption; -1 = pay duly; 0: The use of revolving credit; 1 = payment delay for one month; 2 = payment delay for two months; . . .; 8 = payment delay for eight months; 9 = payment delay for nine months and above. → **Categorical variables mapped to integers, but have ordinal nature as per definition**
X12-X17 (BILL_AMT1 to BILL_AMT6	Amount of bill statement (NT dollar). X12 = amount of bill statement in September 2005; X13 = amount of bill statement in August 2005; . . .; X17 = amount of bill statement in April 2005. **→Numerical**
X18-X23 (PAY_AMT1)	Amount of previous payment (NT dollar). X18 = amount paid in September 2005; X19 = amount paid in August 2005; . . .; X23 = amount paid in April, 2005. →Numerical
Y (default payment next month_	default payment (Yes = 1, No = 0) → class variable - Categorical variables mapped to integers

Methodology

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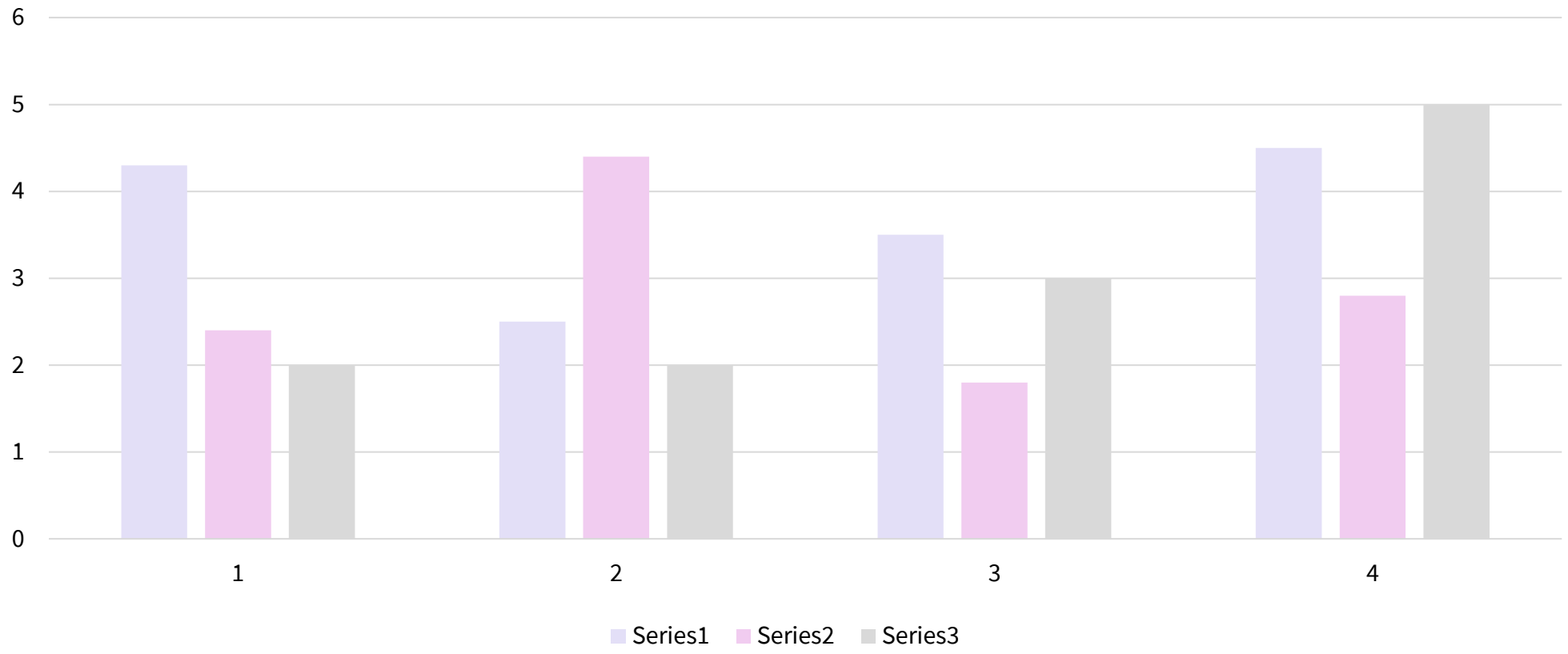
Methodology

Results



Conclusions

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Future Developments

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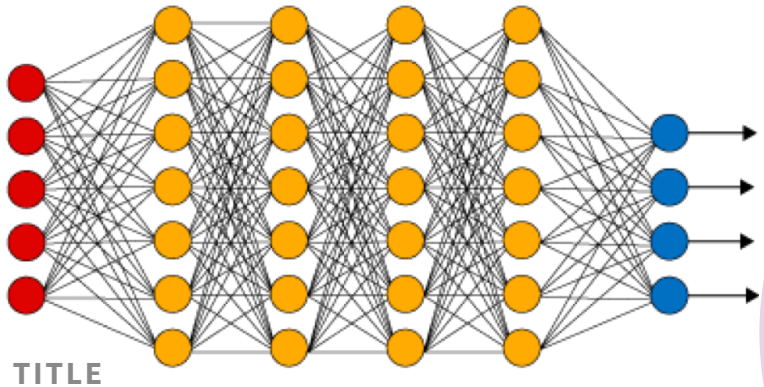

THANK YOU