GEMS Business School

SYNOPSIS

ON

DEVELOP A CREDIT CARD APPROVAL PREDICTION SYSTEM IN WHICH THE OBJECTIVE IS TO ANALYZE HISTORICAL CREDIT CARD APPLICATION DATA, PERFORM DATA PREPROCESSING , CONDUCT EXPLORATORY DATA ANALYSIS (EDA), CREATE INTERACTIVE DATA VISUALIZATIONS USING TABLEAU, AND BUILD A PREDICTIVE MODEL TO ASSESS THE LIKELIHOOD OF CREDIT CARD APPROVAL FOR NEW APPLICANTS.

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UNDER THE GUIDANCE OF :

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Project Title : *DEVELOP A CREDIT CARD APPROVAL PREDICTION SYSTEM IN WHICH THE OBJECTIVE IS TO ANALYZE HISTORICAL CREDIT CARD APPLICATION DATA, PERFORM DATA PREPROCESSING , CONDUCT EXPLORATORY DATA ANALYSIS (EDA), CREATE INTERACTIVE DATA VISUALIZATIONS USING TABLEAU, AND BUILD A PREDICTIVE MODEL TO ASSESS THE LIKELIHOOD OF CREDIT CARD APPROVAL FOR NEW APPLICANTS.*

Business Objective : *THE MAIN OBJECTIVE OF THIS PROJECT IS TO DEVELOP A CREDIT CARD APPROVAL PREDICTION SYSTEM THAT LEVERAGES HISTORICAL CREDIT CARD APPLICATION DATA TO ASSESS THE LIKELIHOOD OF CREDIT CARD APPROVAL FOR NEW APPLICANTS.*

Aim : *THE PROJECT AIMS TO PERFORM COMPREHENSIVE DATA PREPROCESSING, CONDUCT EXPLORATORY DATA ANALYSIS (EDA), AND CREATE INTERACTIVE DATA VISUALIZATIONS USING TABLEAU. ADDITIONALLY, THE PROJECT WILL BUILD A PREDICTIVE MODEL TO ACCURATELY PREDICT THE CREDIT CARD APPROVAL STATUS FOR NEW APPLICANTS BASED ON RELEVANT FEATURES AND HISTORICAL APPLICATION DATA. BY ACHIEVING THIS OBJECTIVE, THE SYSTEM AIMS TO PROVIDE VALUABLE INSIGHTS TO FINANCIAL INSTITUTIONS, STREAMLINE THE CREDIT APPROVAL PROCESS, AND ENHANCE THE OVERALL EFFICIENCY AND ACCURACY OF CREDIT CARD APPLICATION ASSESSMENT.*

Explanation of Data :

ID: Also known as Client Number. A client number is a unique number that is assigned to each customer or account. It is used to identify and track the customer or account. A client number can be based on deterministic data, such as logins or card numbers, to provide a single view of an individual across multiple devices.

CODE_GENDER: Also known as Gender. Helps to know whether the customer is a Male or Female

FLAG_OWN_CAR: It tells us if the client/customers owns a car or not.

FLAG_OWN_REALTY: It tells us if the client/customers owns a property or not.

CNT_CHILDREN: Number of children the customer has if any.

AMT_INCOME_TOTAL: Annual Income. The total value of income earned during a financial year by the client After all taxes are deducted.

NAME_INCOME_TYPE: Income Category. The source for there Income.

NAME_EDUCATION_TYPE: Education level. What degree of Education does the client have.

NAME_FAMILY_STATUS: Marital status. Whether the client is Married or single.

NAME_HOUSING_TYPE: Way of living. Are they living in a rented or own house.

DAYS_BIRTH: Birthday. Count backwards from current day (0), -1 means yesterday

DAYS_EMPLOYED: Start date of employment. Count backwards from current day(0). If positive, it means the person currently unemployed.

FLAG_MOBIL: Is there a mobile phone

FLAG_WORK_PHONE: Is there a work phone

FLAG_PHONE: Is there a phone

FLAG_EMAIL: Is there an email

OCCUPATION_TYPE: Occupation

CNT_FAM_MEMBERS: Family size

MONTHS_BALANCE: Record month. The month of the extracted data is the starting point, backwards, 0 is the current month, -1 is the previous month, and so on

STATUS: 1-29 days past due 1: 30-59 days past due 2: 60-89 days overdue 3: 90-119 days overdue 4: 120-149 days overdue 5: Overdue or bad debts, write-offs for more than 150 days C: paid off that month X: No loan for the month

Programming Environment : *Jupyter Python, Tableau*

Data Source : *A Credit Card Data set for Machine Learning from KAGGLE*