**Smart Loan Manager (Loan Management System) using MySQL**

**Project Objective**

The objective of the **Smart Loan Manager** is to create a comprehensive, dynamic loan management system that streamlines data analysis, interest calculations, customer categorization, and decision-making processes. The system integrates information from multiple datasets, applies automated triggers, and filters key insights to provide actionable outputs for efficient loan and customer management.

Key goals include:

* Categorizing customers based on income and property area.
* Automating interest calculations and CIBIL score-based decision-making.
* Consolidating data from multiple sources into a unified structure.
* Providing filtered insights through procedures for better loan tracking and management.

**Datasets**

1. **Customer Income Status**
2. **Loan Status**
3. **Customer Information**
4. **Country and State Information**
5. **Regional Information**

**Modules**

**1. Sheet 1: Customer Income Status**

* **Import Table:**  
  Import data related to customer income status.
* **Customer Categorization:**
  + Criteria:
    - Applicant Income > 15,000 → Grade A
    - Applicant Income > 9,000 → Grade B
    - Applicant Income > 5,000 → Middle-Class Customer
    - Otherwise → Low-Class Customer
  + Create a new table to store this categorization.
* **Monthly Interest Percentage Calculation:**
  + Criteria for Interest Rate:
    - Applicant Income < 5,000 (Rural) → 3%
    - Applicant Income < 5,000 (Semi-Rural) → 3.5%
    - Applicant Income < 5,000 (Urban) → 5%
    - Applicant Income < 5,000 (Semi-Urban) → 2.5%
    - Otherwise → 7%

**2. Interest Calculations**

* **Create New Fields:**
  + Calculate Monthly and Annual Interest Amounts based on Loan Amount.
  + Create a table named customer\_interest\_analysis to store these fields.
* **Connect Data:**
  + Link this table with **Sheet 2 (Loan Status)** for integrated output.

**3. Sheet 2: Loan Status**

* **Row-Level Trigger for Loan Amount:**
  + Criteria:
    - Loan Amount = NULL → Loan Still Processing.
* **Statement-Level Trigger for CIBIL Score:**
  + Criteria:
    - CIBIL Score > 900 → High CIBIL Score.
    - CIBIL Score > 750 → No Penalty.
    - CIBIL Score > 0 → Penalty Customers.
    - CIBIL Score ≤ 0 → Reject Customers (Loan Cannot Be Applied).
* **Post-Processing:**
  + Delete customers with **Rejected** and **Loan Still Processing** statuses.
  + Update loan amounts as integers.
* **Consolidate Data:**
  + Store all fields in a table named loan\_cibil\_score\_status\_details.

**4. Sheet 3: Customer Information**

* **Import Table:**  
  Import data from the customer info sheet.
* **Update Data:**  
  Update gender and age based on Customer ID.

**5. Sheets 4 & 5: Country, State, and Regional Information**

* **Import Tables:**  
  Import country, state, and regional datasets.
* **Data Consolidation:**
  + Join all five tables without repeating fields.

**Expected Outputs**

**Output 1:**

A unified dataset consolidating information from all five tables.

**Output 2:**

Mismatched data details identified using joins.

**Output 3:**

Filter and display customers with high CIBIL scores.

**Output 4:**

Filter and display customers based on types (Home, Office, Corporate).

**Additional Features**

* **Stored Procedures:**  
  Store all outputs as procedures for efficient data retrieval.