The dataset contains the following columns:

- 1. **ID**: A unique identifier for each individual or record in the dataset.
- 2. **Gender**: Indicates the gender of the individual (e.g., Male, Female).
- 3. **DOB**: The date of birth of the individual, in DD/MM/YY format.
- 4. **Lead\_Creation\_Date**: The date when the lead was created, in DD/MM/YY format.
- 5. **City\_Code**: A code representing the city where the individual resides.
- 6. **City\_Category**: The category of the city (e.g., A, B, C), possibly indicating the city size or type.
- 7. **Employer\_Code**: A unique code representing the employer of the individual.
- 8. **Employer\_Category1**: A categorical classification of the employer (e.g., A, B, C).
- 9. **Employer\_Category2**: A numeric classification of the employer.
- 10. **Monthly\_Income**: The monthly income of the individual, in numeric format.
- 11. Customer\_Existing\_Primary\_Bank\_Code: A code representing the individual's primary bank.
- 12. **Primary\_Bank\_Type**: Indicates the type of primary bank (e.g., government, private).
- 13. **Contacted**: Specifies whether the individual was contacted (Y for Yes, N for No).
- 14. **Source**: The source through which the lead was generated (e.g., S122, S143).
- 15. **Source\_Category**: The category of the source (e.g., G, B).
- 16. **Existing\_EMI**: The amount of any existing EMI (Equated Monthly Installment) being paid by the individual.
- 17. Loan\_Amount: The amount of the loan applied for by the individual.
- 18. **Loan\_Period**: The duration of the loan in years.
- 19. Interest\_Rate: The interest rate applied to the loan.
- 20. **EMI**: The calculated EMI for the loan applied for by the individual.
- 21. **Var1**: An additional variable, possibly categorical or numeric, whose meaning may require further clarification.
- 22. **Approved**: A binary indicator (0 or 1) showing whether the loan application was approved.

1. **Unique Applicant or Lead**: Each row corresponds to an individual who has shown interest in applying for a loan or has been approached as a lead by a financial institution.

#### 2. Personal Information:

- o **Gender** and **DOB** capture the demographic details of the applicant.
- City\_Code and City\_Category indicate the location of the applicant, which may relate to their economic or geographic context.

### 3. Employment Details:

- Employer\_Code, Employer\_Category1, and Employer\_Category2 provide information about the applicant's employer, including unique identifiers and classifications. These may be used to assess the applicant's job stability or income reliability.
- Monthly\_Income shows the financial capability of the applicant, crucial for determining loan eligibility.

### 4. Banking & Financial Information:

- Customer\_Existing\_Primary\_Bank\_Code and Primary\_Bank\_Type shed light on the applicant's existing banking relationships, which might influence their creditworthiness.
- Existing\_EMI reflects any ongoing financial commitments, which help assess their debt-to-income ratio.

## 5. Loan Application Details:

 Loan\_Amount, Loan\_Period, Interest\_Rate, and EMI are specific to the loan application, including the requested amount, desired repayment tenure, and expected repayment terms.

#### 6. Lead Tracking:

- Lead\_Creation\_Date marks when this lead was recorded in the system, essential for tracking the sales pipeline.
- Source and Source\_Category reveal how this lead was generated, useful for understanding and optimizing marketing channels.
- Contacted indicates whether the applicant has been approached by the institution.

#### 7. Outcome:

Approved shows whether the loan application was approved (1) or rejected (0), providing a clear outcome for the record.

## 8. Additional Information:

 Var1 is an extra variable, likely relevant to the institution's internal processes or scoring models. A detailed explanation of the columns and their potential meanings

#### 1. ID

• A unique identifier for each record. It doesn't provide any analytical meaning directly but is used to differentiate between individuals.

#### 2. Gender

• Male/Female: Indicates the applicant's gender. Gender may be used to study trends, though care must be taken to avoid biases.

### 3. DOB (Date of Birth)

 Represents the applicant's birthdate. Used to calculate age, which is often crucial for understanding eligibility, e.g., younger people might have different income or loan requirements compared to older applicants.

## 4. Lead\_Creation\_Date

• The date when the applicant's details were recorded in the system. Useful for timebased analysis, such as tracking loan application trends over time.

## 5. City\_Code

• A unique code for the city the applicant resides in. It doesn't directly convey meaning but is used to group applicants by city for geographic analysis.

### 6. City\_Category

- A/B/C: Likely represents the size or development level of the city:
  - A: Metropolitan cities or Tier 1 cities with high economic activity.
  - B: Tier 2 cities, moderately developed.

C: Smaller towns or rural areas.

# 7. Employer\_Code

• A unique identifier for the applicant's employer. This helps track which companies are associated with more applicants or higher approvals.

### 8. Employer\_Category1

- A/B/C: A categorical classification of employers:
  - **A**: High-reputation employers (e.g., large corporations, government jobs).
  - B: Mid-level employers (e.g., SMEs, startups).
  - o **C**: Lower-reputation employers or unstable jobs.

## 9. Employer\_Category2

- Numeric values (e.g., 1, 4): Possibly a score or tier representing the employer's stability or industry classification:
  - Lower values (1, 2): Stable industries or employers.
  - Higher values (3, 4): Less stable or emerging industries.

#### 10. Monthly Income

 The applicant's monthly income, which is critical in evaluating their loan repayment capacity.

# 11. Customer\_Existing\_Primary\_Bank\_Code

• A unique code representing the primary bank the applicant uses. This might be used to identify trends, such as which banks' customers are more likely to apply for loans.

#### 12. Primary Bank Type

- Likely categories like:
  - o **Private**: Private-sector banks.
  - Government: Public-sector banks.
  - Could influence trust and approval rates.

#### 13. Contacted

• Y/N: Indicates whether the applicant has been contacted by the financial institution.

#### 14. Source

- Codes like **\$122**, **\$143** represent the lead source, such as:
  - Marketing campaigns.
  - o Online platforms.
  - Referral programs.

## 15. Source\_Category

- A/B/G: Categories of the sources:
  - o **A**: Direct sources (e.g., branch visits).
  - B: Indirect sources (e.g., third-party agents).
  - G: Digital sources (e.g., online ads, apps).

# 16. Existing\_EMI

 The amount of any ongoing EMI the applicant is already paying, which affects their debtto-income ratio.

# 17. Loan\_Amount

• The amount the applicant is requesting as a loan.

# 18. Loan\_Period

• The loan duration in years, which impacts monthly EMI and interest calculations.

## 19. Interest\_Rate

• The annual interest rate for the requested loan.

## 20. EMI

• The Equated Monthly Installment calculated for the loan based on the amount, period, and interest rate.

#### 21. Var1

• A miscellaneous variable, potentially part of an internal scoring system or additional metadata about the applicant.

# 22. Approved

- **0/1**: Binary indicator of loan approval.
  - o **0**: Loan not approved.
  - o 1: Loan approved.