# Data and Analysis Documentation

**1. Data Dictionary**

* **user\_id**: Integer
  + **Description**: Unique identifier assigned to each user in the system.
  + **Purpose**: Used to track individual user records and expenses in a multi-user context (if expanded in the future).
* **category**: String
  + **Description**: The category assigned to each expense (e.g., Food, Utilities, Entertainment).
  + **Purpose**: Helps in organizing and categorizing expenses for detailed analysis and reporting.
* **amount**: Float
  + **Description**: The monetary value of the expense.
  + **Purpose**: Represents the expenditure amount, essential for financial tracking and calculating spending trends.

**2. Trend Analysis**

* **Monthly Trends**
  + **Purpose**: To visualize expenses by category on a month-to-month basis.
  + **Objective**: Enables users to identify recurring patterns or spikes in certain types of expenses, aiding in budgeting and expense management.
* **Yearly Comparison**
  + **Purpose**: To compare spending data across different years.
  + **Objective**: Allows users to track changes in spending habits over time, providing insight into long-term financial behavior and supporting more informed financial decisions.