Personal Expense Tracker

Assignment 1

Due Date: 20-06-2023

**Problem Statement**

Create a personal expense tracker to store information about our expenses, including the date, amount, category, and description.

**Step 1:** Create a Database table to store the details about our personal expenses. Below are the required columns in this table:

- expense\_id (primary key, data type: serial)

- expense\_date (data type: date),

- amount (data type: money),

- category\_id (data type: integer), and

- description (data type: text)

**Step 2:** Create another table named “Category” to store our expense categories. Below are the required columns with their data types:

* category\_id (primary key, data type: serial),
* category (data type: varchar), and
* budget (data type: money)

**Step 3:** Set up foreign key constraints to ensure our data remains consistent. Set the `category` column in the `Expense` table to reference the `category\_name` column in the `Category` table. Provide the SQL command to add foreign key constraints as above to the `Expense` table.

**Step 4:** Insert data about your expenses in the tables above.

**Step 5:** To improve query performance, define an index on the amount column in the Expense table.

**Step 6:** Write a query to find the total expense in each category for the month of May 2023.

**Deliverables:**

Provide SQL queries for each of the above steps.