# OPCUG Share Microsoft Access Design and Implement Expense Database

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# Requirements

- Requirements for a database to keep track of household expenses:
  - Expense date
  - Expense amount
  - ▶ Who did the expense
  - Expense category
  - ▶ Notes
- ► These requirements will determine the various Access objects that are required and relationships between the tables

# Design Hints and Lessons Learned

- While space are allowed in object and field name, avoid using space and instead use capital letter, e.g. "MethodOfPayment" versus "Method Of Payment"
- ▶ A table field name must be unique within a table, so in theory, you can have a field name "ID" in all the table, however once you have many tables, it get confusing which "ID" you are referring to. Instead, use the name of the table or abbreviated table name as the beginning of each field name, e.g. if the table name is Expense, name the field "ExpenseID" instead of just "ID"
- ► Grouping records by Month, e.g. Jan 2021, will result in incorrect sorting of the records, e.g. Apr 2021 will be listed first
  - Use two fields one numeric (e.g. 202101) for sorting and one textual (e.g. Jan-2021) for display

# Access Objects Required

- Based on the requirements, we need the following tables and relationships:
  - Expense table
  - Person table with one to many relationship with Expense
  - Category table with one to many relationship with Expense
- Forms to enter or edit the data for each of the table
- Query to group Expense per Month
- Query to group Expense per Month and Category
- Reports for the two queries
- A Switchboard to navigate the application and configure Access to open the Switchboard form once the file is opened

### Demo

- Creating a blank Access database file
- Creating Tables
- Creating Forms
- Visual Basic for Application example to create 1000 records of random data
- Creating Queries
- Creating Reports
- Creating Switchboard and setting start-up form



