### **Part 1: Retrieving Data with SELECT**

#### **1.1 Retrieving All Expenses**

SELECT \* FROM Expenses;

#### **1.2 Specific Columns**

SELECT date, category, amount FROM Expenses;

#### **1.3 Filtering by Date Range**

SELECT \* FROM Expenses

WHERE date BETWEEN '2021-01-01' AND '2024-12-15';

### **Part 2: Filtering with WHERE Clause**

#### **2.1 Filtering by Category**

SELECT \* FROM Expenses

WHERE category = 'Entertainment';

#### **2.2 Filtering with Comparison Operators**

SELECT \* FROM Expenses

WHERE amount > 50;

#### **2.3 Combining Filters (AND)**

SELECT \* FROM Expenses

WHERE amount > 75 AND category = 'Food';

#### **2.4 Combining Filters (OR)**

SELECT \* FROM Expenses

WHERE category = 'Transportation' OR category = 'Groceries';

#### **2.5 Filtering with NOT**

SELECT \* FROM Expenses

WHERE category != 'Rent';

### **Part 3: Sorting Retrieved Data**

#### **3.1 Sorting by Amount**

SELECT \* FROM Expenses

ORDER BY amount DESC;

#### **3.2 Sorting by Date and Category**

SELECT \* FROM Expenses

ORDER BY date DESC, category ASC;

### **Part 4: Database Upgrade**

#### **4.1 Create the "Income" Table**

CREATE TABLE Income (

income\_id INT AUTO\_INCREMENT PRIMARY KEY,

amount DECIMAL(10, 2) NOT NULL,

date DATE NOT NULL,

source VARCHAR(50) NOT NULL

);

#### **4.2 Add a "category" Column**

ALTER TABLE Income

ADD category VARCHAR(50);

#### **4.3 Remove the "source" Column**

ALTER TABLE Income

DROP COLUMN source;

#### **4.4 Drop the "Income" Table**

DROP TABLE Income;