# SQL Queries for Expense Tracker

## 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 new column named "category":

ALTER TABLE Income ADD COLUMN category VARCHAR(50);

### 4.3 Remove the "source" column:

ALTER TABLE Income DROP COLUMN source;

### 4.4 Drop the "Income" table:

DROP TABLE Income;