Expense Tracker SQL Queries

# Part 1: Retrieving Data with SELECT

## 1.1 Retrieving All Expenses

```sql  
SELECT \* FROM Expenses;  
```

## 1.2 Specific Columns

```sql  
SELECT date, category, amount FROM Expenses;  
```

## 1.3 Filtering by Date Range

```sql  
SELECT \* FROM Expenses  
WHERE date BETWEEN '2021-01-01' AND '2024-12-15';  
```

# Part 2: Filtering with WHERE Clause

## 2.1 Filtering by Category

```sql  
SELECT \* FROM Expenses  
WHERE category = 'Entertainment';  
```

## 2.2 Filtering with Comparison Operators

```sql  
SELECT \* FROM Expenses  
WHERE amount > 50;  
```

## 2.3 Combining Filters (AND)

```sql  
SELECT \* FROM Expenses  
WHERE amount > 75 AND category = 'Food';  
```

## 2.4 Combining Filters (OR)

```sql  
SELECT \* FROM Expenses  
WHERE category = 'Transportation' OR category = 'Groceries';  
```

## 2.5 Filtering with NOT

```sql  
SELECT \* FROM Expenses  
WHERE category != 'Rent';  
```

# Part 3: Sorting Retrieved Data

## 3.1 Sorting by Amount

```sql  
SELECT \* FROM Expenses  
ORDER BY amount DESC;  
```

## 3.2 Sorting by Date and Category

```sql  
SELECT \* FROM Expenses  
ORDER BY date DESC, category ASC;  
```

# Part 4: Database Upgrade

## 4.1 Create the "Income" Table

```sql  
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 "category"

```sql  
ALTER TABLE Income  
ADD COLUMN category VARCHAR(50);  
```

## 4.3 Remove the "source" Column

```sql  
ALTER TABLE Income  
DROP COLUMN source;  
```

## 4.4 Drop the "Income" Table

```sql  
DROP TABLE Income;  
```