USE expense\_tracker;

-- PART ONE

-- 1.1 Retrieving all the expenses

SELECT \* FROM expenses;

-- 1.2 Retrieve specific columns

SELECT amount, date, category FROM expenses;

-- 1.3 Filtering by date range (FROM January 2022 to December 2023)

SELECT date, amount FROM expenses WHERE date BETWEEN '2022-01-01' AND '2023-12-31' ORDER BY date ASC;

-- PART TWO: FILTERING WITH WHERE CLAUSE

-- 2.1: Filtering by category

SELECT \* FROM expenses WHERE category = 'Entertainment';

SELECT \* FROM expenses WHERE category = 'Transportation';

SELECT \* FROM expenses WHERE category = 'Other';

SELECT \* FROM expenses WHERE category = 'Groceries';

-- 2.2 Filtering by comparison operators.ALTER

SELECT \* FROM expenses WHERE amount > 50;

-- 2.3 Combining filters (AND)

SELECT \* FROM expenses WHERE amount > 50 AND category = 'Entertainment';

-- 2.4 Combining filters (OR)

SELECT \* FROM expenses WHERE amount > 50 OR category = 'Transportation';

-- 2.5 Filtering with NOT.

SELECT \* FROM expenses WHERE category NOT LIKE 'Transportation';

-- PART THREE: SORTING THE RETRIEVED DATA

-- 3.1 Sorting by amount.

-- sorting the amount in ascending order

SELECT \* FROM expenses ORDER BY amount ASC;

-- sorting the amount in descending order

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 creating an additional table

CREATE TABLE IF NOT EXISTS Income (

income\_id INT NOT NULL AUTO\_INCREMENT,

amount DECIMAL(10, 2) NOT NULL,

date DATE NOT NULL,

source VARCHAR(50) NOT NULL,

PRIMARY KEY (income\_id)

);

-- 4.2 Adding another column category.

ALTER TABLE Income

ADD COLUMN category VARCHAR(50) NOT NULL;

-- 4.3 Dropping the column 'source' from the table

ALTER TABLE Income

DROP COLUMN source;