Answers to Assignment week 2

USE expensetracker;

Part 1: Retrieving Data with SELECT

1.1 Retrieving All Expenses

SELECT \*

FROM expenses;

1.2 Specific Columns

SELECT category, amount

FROM expenses;

1.3 Filtering by Date Range

SELECT \*

FROM expenses

WHERE date BETWEEN '2021-01-02' AND '2024-12-01';

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 >50.00;

2.3 Combining Filters (AND)

SELECT \*

FROM expenses

WHERE amount >75.00 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! ="Other";

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 Write SQL commands to achieve the following, new 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 New column

ALTER TABLE income

ADD COLUMN category VARCHAR(50);

4.3 Deleting a column

ALTER TABLE income

DROP COLUMN source;

4.4 Deleting a table

DROP TABLE income;