SQL queries for each of the tasks based on the "Expenses" table:

1.1 Retrieving All Expenses: To retrieve all data points (columns) from the "Expenses" table:

SELECT \* FROM Expenses;

1.2 Specific Columns: To select only specific columns such as "date," "category," and "amount":

SELECT date, category, amount FROM Expenses;

1.3 Filtering by Date Range: To retrieve expenses charged between January 1, 2021, and December 15, 2024:

SELECT \* FROM Expenses

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

2.1 Filtering by Category

To find all expenses belonging to a specific category (e.g., "Entertainment"):

SELECT \* FROM Expenses

WHERE category = 'Entertainment';

2.2 Filtering with Comparison Operators

To find expenses with an amount greater than a certain value (e.g., $50):

SELECT \* FROM Expenses

WHERE amount > 50;

2.3 Combining Filters (AND)

To find expenses that meet multiple criteria, such as expenses greater than $75 AND belonging to the "Food" category:

SELECT \* FROM Expenses

WHERE amount > 75 AND category = 'Food';

2.4 Combining Filters (OR)

To find expenses belonging to one category or another (e.g., "Transportation" OR "Groceries"):

SELECT \* FROM Expenses

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

2.5 Filtering with NOT

To display expenses unrelated to a specific category (e.g., "Rent"):

SELECT \* FROM Expenses

WHERE category != 'Rent';

3.1 Sorting by Amount

To display all expenses sorted by amount in descending order (from highest to lowest spending):

SELECT \* FROM Expenses

ORDER BY amount DESC;

3.2 Sorting by Date and Category

To sort expenses based on multiple columns, such as sorting first by date in descending order and then by category in ascending order:

SELECT \* FROM Expenses

ORDER BY date DESC, category ASC;

4.1 Create the "Income" Table

To create a table named "Income" with the specified columns:

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"

To add a new column named "category" of type VARCHAR(50) to the "Income" table:

ALTER TABLE Income

ADD COLUMN category VARCHAR(50);

4.3 Remove the "source" Column

To remove the "source" column from the "Income" table:

ALTER TABLE Income

DROP COLUMN source;

4.4 Drop the "Income" Table

To permanently remove the "Income" table from your database:

DROP TABLE Income;