

Week 2: Essential Data Retrieval & Filtering (Focus on Expense Tracker Data)

1.1 SELECT * FROM Expenses;

1.2 SELECT date, category, amount FROM Expenses;

1.3 SELECT * FROM Expenses

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

Part 2: Filtering with WHERE clause

2.1 SELECT * FROM Expenses

WHERE category = 'Entertainment';

2.2 SELECT * FROM Expenses

WHERE amount > 50;

2.3 SELECT * FROM Expenses

WHERE amount > 75 AND category = 'Food';

2.4 SELECT * FROM Expenses

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

2.5 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 Creating 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 Adding a Column "category" to "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  
);
```

4.3 Removing the "source" Column from "Income" Table:

```
ALTER TABLE Income
```

```
DROP COLUMN source;
```

4.4 Dropping the "Income" Table:

```
DROP TABLE Income;
```