

Part 1: Retrieving Data with SELECT

1.1 Retrieving All Expenses

```
SELECT * FROM Expenses;
```

1.2 Specific Columns:

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

1.3 Filtering by Date Range

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

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;
```

2.3 Combining Filters (AND):

```
SELECT *  
  
FROM Expenses  
  
WHERE amount > 75
```

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 <> '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 Write SQL commands to achieve the following:

CREATE TABLE Income (

income_id INT PRIMARY KEY AUTO_INCREMENT,

amount DECIMAL(10,2) NOT NULL,

date DATE NOT NULL,

source VARCHAR(50) NOT NULL

);

4.2 To track the income category "source" (e.g., "Salary," "Freelance Work").

```
ALTER TABLE Income
```

```
ADD category VARCHAR(50);
```

4.3 Remove source.

```
ALTER TABLE Income
```

```
DROP COLUMN source;
```

4.4 Remove Income Table

```
DROP TABLE Income;
```