

Run following the expense_tracker_expenses.sql in the SQL Workbench.

Displaying the expenses table created.

```
SELECT* FROM expenses;
```

OUTPUT

id	category	Description	amount	date
1	Groceries	Milk, Eggs, Bread	20.00	2024-06-15
2	Entertainment	Movie ticket	12.50	2024-06-18
3	Groceries	Fruits, Vegetables	35.75	2024-06-20
4		Transportation	5.00	2024-06-17
5	Entertainment	Concert ticket	45.00	2024-06-21
6	Dining Out	Restaurant dinner	30.00	2024-06-19
7	Clothing		15.99	2026-04-12
8	Bills	Electricity bill	75.40	2027-02-01
9	Other	Gift for friend	22.00	
10	Travel	Flight ticket	350.00	2029-08-10

Questions (2 hours):

1.1. Adding a New Expense: Write an INSERT statement to add a new expense record to your Expense Tracker. Include details like amount, date, and category (e.g., groceries purchase on a specific date with a certain amount).

```
INSERT INTO expenses (id,category,description, amount , date)
VALUES ('11','Outing', 'Dinner', '100.50', '2024-07-14');
```

```
select* from expenses
```

OUTPUT

id	category	description	amount	date
1	Groceries	Milk, Eggs, Bread	20.00	2024-06-15
2	Entertainment	Movie ticket	12.50	2024-06-18
3	Groceries	Fruits, Vegetables	35.75	2024-06-20
4		Transportation	5.00	2024-06-17
5	Entertainment	Concert ticket	45.00	2024-06-21
6	Dining Out	Restaurant dinner	30.00	2024-06-19
7	Clothing		15.99	2026-04-12
8	Bills	Electricity bill	75.40	2027-02-01

9	Other	Gift for friend	22.00	
10	Travel	Flight ticket	350.00	2029-08-10
11	Outing	Dinner	100.50	2024-07-14

1.2. Updating an Expense:

Modify an existing expense record. You can change the amount, date, or category for a specific expense ID.

```
UPDATE expenses
```

```
SET category = 'Fun',
```

```
    description = 'Cocktails',
```

```
    amount = 150.75,
```

```
    date = '2024-07-15'
```

```
WHERE id = 1;
```

```
select * from expenses;
```

OUTPUT

id	category	description	amount	date
1	Fun	Cocktails	150.75	2024-07-15
2	Entertainment	Movie ticket	12.50	2024-06-18
3	Groceries	Fruits, Vegetables	35.75	2024-06-20
4		Transportation	5.00	2024-06-17
5	Entertainment	Concert ticket	45.00	2024-06-21
6	Dining Out	Restaurant dinner	30.00	2024-06-19
7	Clothing		15.99	2026-04-12
8	Bills	Electricity bill	75.40	2027-02-01
9	Other	Gift for friend	22.00	
10	Travel	Flight ticket	350.00	2029-08-10

1.3. Simulating Data Deletion:

Create a copy of your "Expenses" table. Practice deleting a record using DELETE on this copy (remember not to delete from your main data set).

Creating a copy of expenses table.

```
CREATE TABLE expenses_copy
```

```
SELECT * FROM expenses;
```

Displaying the copy of expenses table.

```
SELECT * FROM expense_copy;
```

Deleting a record using DELETE

```
DELETE FROM expenses_copy  
  
WHERE id = 1;
```

Displaying the copy of expense table with a record deleted

```
SELECT* FROM expenses_copy
```

OUTPUT

id	category	description	amount	date
2	Entertainment	Movie ticket	12.50	2024-06-18
3	Groceries	Fruits, Vegetables	35.75	2024-06-20
4		Transportation	5.00	2024-06-17
5	Entertainment	Concert ticket	45.00	2024-06-21
6	Dining Out	Restaurant dinner	30.00	2024-06-19
7	Clothing		15.99	2026-04-12
8	Bills	Electricity bill	75.40	2027-02-01
9	Other	Gift for friend	22.00	
10	Travel	Flight ticket	350.00	2029-08-10

Bonus Challenge

Handling NULL Values:

Check if there are any NULL values in your "Expenses" table. If so, explore how you might handle them using conditional updates or setting default values (consider the feasibility based on your sample data).

```
-- Update for amount column
```

```
UPDATE expenses
```

```
SET amount = 0
```

```
WHERE amount IS NULL;
```

```
-- Update for description column
```

```
UPDATE expenses
```

```
SET description = 'No Description'
```

```
WHERE description IS NULL;
```

```

-- Update for date column

UPDATE expenses

SET date = CURDATE()  -- Set current date as default

WHERE date IS NULL;


-- Update for category column

UPDATE expenses

SET category = 'No Category'

WHERE category IS NULL;


SELECT* FROM expenses;

```

OUTPUT

id	category	description	amount	date
1	Groceries	Milk, Eggs, Bread	20.00	2024-06-15
2	Entertainment	Movie ticket	12.50	2024-06-18
3	Groceries	Fruits, Vegetables	35.75	2024-06-20
4	No Category	Transportation	5.00	2024-06-17
5	Entertainment	Concert ticket	45.00	2024-06-21
6	Dining Out	Restaurant dinner	30.00	2024-06-19
7	Clothing	No Description	15.99	2026-04-12
8	Bills	Electricity bill	75.40	2027-02-01
9	Other	Gift for friend	22.00	2024-07-14
10	Travel	Flight ticket	350.00	2029-08-10