### ASSIGNMENT-1(CRUD OPERATIONS)

#### 1. Create:

## IDE output:

```
☑ Connected successfully to EnergyTradingDB

--- Energy Trading Menu ---

    Add Trade

2. View All Trades
Update Trade
4. Delete Trade
Search Trades by Counterparty / Commodity
Exit
Choose an option: 1
Enter Trade Date (YYYY-MM-DD): 2025-08-01
Enter Counterparty: Shell
Enter Commodity: Power
Enter Volume: 100
Enter Price: 50.25
Enter Trade Type (BUY/SELL): buy

☑ Trade added successfully.

--- Energy Trading Menu ---

    Add Trade

View All Trades
3. Update Trade
4. Delete Trade
Search Trades by Counterparty / Commodity
Exit
Choose an option: 1
Enter Trade Date (YYYY-MM-DD): 2024-10-02
Enter Counterparty: Reliance
Enter Commodity: Electricity
Enter Volume: 500
Enter Price: 23.50
Enter Trade Type (BUY/SELL): sell
✓ Trade added successfully.
```

## Database updates:

	TradeID	TradeDate	Counterparty	Commodity	Volume	Price	TradeType
•	1	2025-08-01	Shell	Power	100.00	50.25	buy
	2	2024-10-02	Reliance	Electricity	500.00	23.50	sell
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

# 2.Read and update:

```
--- Energy Trading Menu ---

1. Add Trade

2. View All Trades

3. Update Trade

4. Delete Trade

5. Search Trades by Counterparty / Commodity

6. Exit

Choose an option: 2

ID: 1 | Date: 2025-08-01 | CP: Shell | Cmdty: Power | Vol: 100.00 | Price: 50.25 | Type: buy

ID: 2 | Date: 2024-10-02 | CP: Reliance | Cmdty: Electricity | Vol: 500.00 | Price: 23.50 | Type: sell

--- Energy Trading Menu ---

1. Add Trade

2. View All Trades

3. Update Trade

4. Delete Trade

5. Search Trades by Counterparty / Commodity

6. Exit

Choose an option: 3

Enter Trade ID to update: 1

Enter new Price: 51.25

Enter new Volume: 150

Trade updated.
```

## Database Updation;

	TradeID	TradeDate	Counterparty	Commodity	Volume	Price	TradeType
•	1	2025-08-01	Shell	Power	150.00	51.25	buy
	2	2024-10-02	Reliance	Electricity	500.00	23.50	sell
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

#### 3.Deletion:

### Before Deletion database:

	TradeID	TradeDate	Counterparty	Commodity	Volume	Price	TradeType
١	1	2025-08-01	Shell	Power	150.00	51.25	buy
	2	2024-10-02	Reliance	Electricity	500.00	23.50	sell
	3	2023-08-02	Qatar Energy	Gas	210.00	14.50	sell
	4	2024-07-10	hp	oil	300.00	10.00	sell
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

## IDE output:

- --- Energy Trading Menu ---
- 1. Add Trade
- View All Trades
- Update Trade
- 4. Delete Trade
- 5. Search Trades by Counterparty / Commodity
- Exit

Choose an option: 4

Enter Trade ID to delete: 3

☑ Trade deleted.

#### After deletion:

	TradeID	TradeDate	Counterparty	Commodity	Volume	Price	TradeType
•	1	2025-08-01	Shell	Power	150.00	51.25	buy
	2	2024-10-02	Reliance	Electricity	500.00	23.50	sell
	4	2024-07-10	hp	oil	300.00	10.00	sell
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

#### 4. Search:

#### IDE output:

```
--- Energy Trading Menu ---
1. Add Trade
2. View All Trades
3. Update Trade
4. Delete Trade
5. Search Trades by Counterparty / Commodity
6. Exit
Choose an option: 5
Search by (1) Counterparty or (2) Commodity? 2
Enter Commodity: oil
ID: 4 | Date: 2024-07-10 | CP: hp | Cmdty: oil | Vol: 300.00 | Price: 10.00 | Type: sell
--- Energy Trading Menu ---
1. Add Trade
2. View All Trades
3. Update Trade
4. Delete Trade
5. Search Trades by Counterparty / Commodity
6. Exit
Choose an option: 5
Search by (1) Counterparty or (2) Commodity? 1
Enter Counterparty: hp
ID: 4 | Date: 2024-07-10 | CP: hp | Cmdty: oil | Vol: 300.00 | Price: 10.00 | Type: sell
```

## 5. Exit:

```
--- Energy Trading Menu ---

1. Add Trade

2. View All Trades

3. Update Trade

4. Delete Trade

5. Search Trades by Counterparty / Commodity

6. Exit
```

Choose an option: 6 Exiting...