

```

-- =====

-- Create Table (if not exists)

-- =====

CREATE TABLE FeePayments (
    payment_id INT PRIMARY KEY,
    student_name VARCHAR(100) NOT NULL,
    amount DECIMAL(10,2) CHECK (amount > 0),
    payment_date DATE NOT NULL
);

-- =====

-- Part A: Insert Multiple Fee Payments (COMMIT)

-- =====

START TRANSACTION;

INSERT INTO FeePayments (payment_id, student_name, amount,
payment_date)
VALUES
(1, 'Ashish', 5000.00, '2024-06-01'),
(2, 'Smaran', 4500.00, '2024-06-02'),
(3, 'Vaibhav', 5500.00, '2024-06-03');

COMMIT;

SELECT * FROM FeePayments;

-- =====

-- Part B: Demonstrate ROLLBACK (duplicate ID)

```

-- =====

START TRANSACTION;

-- Valid insert

INSERT INTO FeePayments (payment\_id, student\_name, amount,  
payment\_date)

VALUES (4, 'Kiran', 4800.00, '2024-06-05');

-- Invalid insert: duplicate ID = 1, negative amount

INSERT INTO FeePayments (payment\_id, student\_name, amount,  
payment\_date)

VALUES (1, 'Ashish', -3000.00, '2024-06-06');

-- Transaction fails → Rollback

ROLLBACK;

SELECT \* FROM FeePayments;

-- =====

-- Part C: Partial Failure (NULL student\_name)

-- =====

START TRANSACTION;

-- Valid insert

```
INSERT INTO FeePayments (payment_id, student_name, amount,  
payment_date)
```

```
VALUES (5, 'Anita', 5200.00, '2024-06-07');
```

```
-- Invalid insert: NULL name not allowed
```

```
INSERT INTO FeePayments (payment_id, student_name, amount,  
payment_date)
```

```
VALUES (6, NULL, 4000.00, '2024-06-07');
```

```
-- Transaction fails → Rollback
```

```
ROLLBACK;
```

```
SELECT * FROM FeePayments;
```

```
-- =====
```

```
-- Part D: Verify ACID Compliance
```

```
-- =====
```

```
START TRANSACTION;
```

```
-- Valid inserts
```

```
INSERT INTO FeePayments (payment_id, student_name, amount,  
payment_date)
```

```
VALUES
```

```
(7, 'Sneha', 4700.00, '2024-06-08'),
```

```
(8, 'Arjun', 4900.00, '2024-06-09');
```

-- Invalid insert: duplicate ID = 1

```
INSERT INTO FeePayments (payment_id, student_name, amount,  
payment_date)
```

```
VALUES (1, 'Duplicate', 5100.00, '2024-06-10');
```

-- Rollback to undo all

```
ROLLBACK;
```

-- Final state: only original committed records (1,2,3)

```
SELECT * FROM FeePayments;
```