# Solution Document

## Project Title:

Enhancing the Order Table with Delivery Status

## Objective:

The objective of this solution is to enhance the existing Order table by introducing a new column, delivery\_status, which will provide an indication of whether an order has been delivered or not.

## Business Requirement:

In the current database structure, the Order table contains a column named order\_status, which indicates the current state of an order. However, this column does not explicitly indicate whether an order has been successfully delivered or is still in transit. To improve order tracking and reporting, a new delivery\_status column should be introduced with the following logic:

- If the order\_status is 'Pending' or 'Shipped', the delivery\_status should be marked as 'N' (Not Delivered).

- If the order\_status is 'Delivered', the delivery\_status should be marked as 'Y' (Delivered).

## Database Schema Updates:

### Customer Table:

### Order Table (Before Enhancement):

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Description |
| cust\_id | INT (FK) | Reference to Customer Table |
| product\_name | VARCHAR | Name of the Product Ordered |
| order\_id | INT (PK) | Unique Identifier for Each Order |
| order\_date | DATE | Date when the Order was Placed |
| order\_status | VARCHAR | Status of the Order (Pending, Shipped, Delivered) |

### Order Table (After Enhancement):

|  |  |  |
| --- | --- | --- |
| Column Name | Data Type | Description |
| cust\_id | INT (FK) | Reference to Customer Table |
| product\_name | VARCHAR | Name of the Product Ordered |
| order\_id | INT (PK) | Unique Identifier for Each Order |
| order\_date | DATE | Date when the Order was Placed |
| order\_status | VARCHAR | Status of the Order (Pending, Shipped, Delivered) |
| delivery\_status | CHAR(1) | 'N' (Not Delivered) if Order is Pending/Shipped, 'Y' (Delivered) if Order is Delivered |

## Implementation Details:

1. Column Addition: A new column delivery\_status is introduced in the Order table.

2. Business Logic for Delivery Status:

- If order\_status is 'Pending' or 'Shipped', the delivery\_status will be 'N' (Not Delivered).

- If order\_status is 'Delivered', the delivery\_status will be 'Y' (Delivered).

## Business Benefits:

- Improved Order Tracking: Clear indication of whether an order has been delivered.

- Better Customer Communication: Customers can track their orders accurately.

- Enhanced Reporting: Business teams can filter and analyze order data efficiently.

- Operational Efficiency: Logistics teams can identify delayed orders easily.

## Conclusion:

This enhancement introduces a simple but effective way to track order delivery status. By adding a delivery\_status column, businesses can efficiently monitor order progress, improve customer satisfaction, and streamline operations.