

The slide features a white background with several decorative blue elements. In the top-left corner, there is a large solid blue circle. In the top-right corner, there is a smaller circle with blue diagonal stripes. In the bottom-left corner, there is another circle with blue diagonal stripes. At the bottom of the slide, there are large, overlapping wavy shapes in various shades of blue, ranging from light to dark. The text is centered and reads:

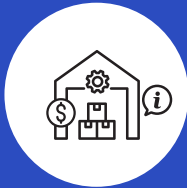
**DATABASE MANAGEMENT WITH PL/SQL**

# **INVETORY MANAGEMENT SYSTEM**

Prepared by Mushimiyumukiza Blaise 26229

# PROBLEM STATEMENT

Current issues because of using manual Inventory and order processing:



Stockouts and  
overstocking



Customer  
dissatisfaction



Delayed shipments



Poor management

**SOLUTION:** CENTRALISED ORACLE PL/SQL-BASED SYSTEM

# SYSTEM CONTEXT & TARGET USERS



**Used in:** Retail businesses (online/offline)

## Key users

1

Warehouse Managers

3

Suppliers

2

Sales Teams

4

Business Analysts

5

Customers

# PROJECT GOALS

## Key Goals



Automate inventory  
and order workflows



Provide real-time  
inventory updates



Enhance accuracy  
and data security



Support scalable  
retail operations

# ENTITIES



## Customers

Buyers or clients



## Products

Sellable goods

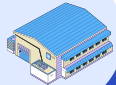


## Suppliers



## Inventory

Stocked items



## Warehouses

Storage locations



## Orders

Purchase requests



## order items

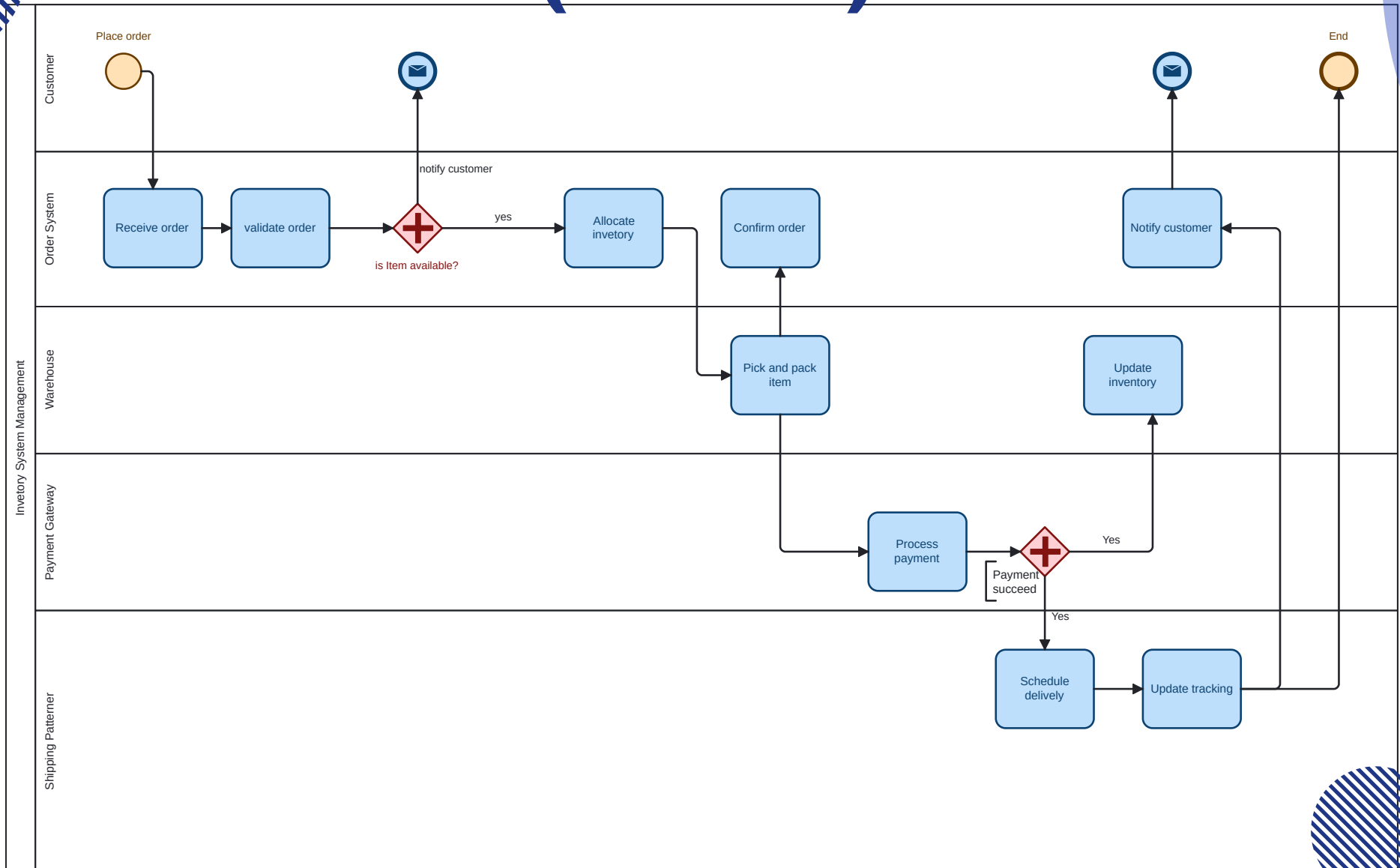
Ordered products



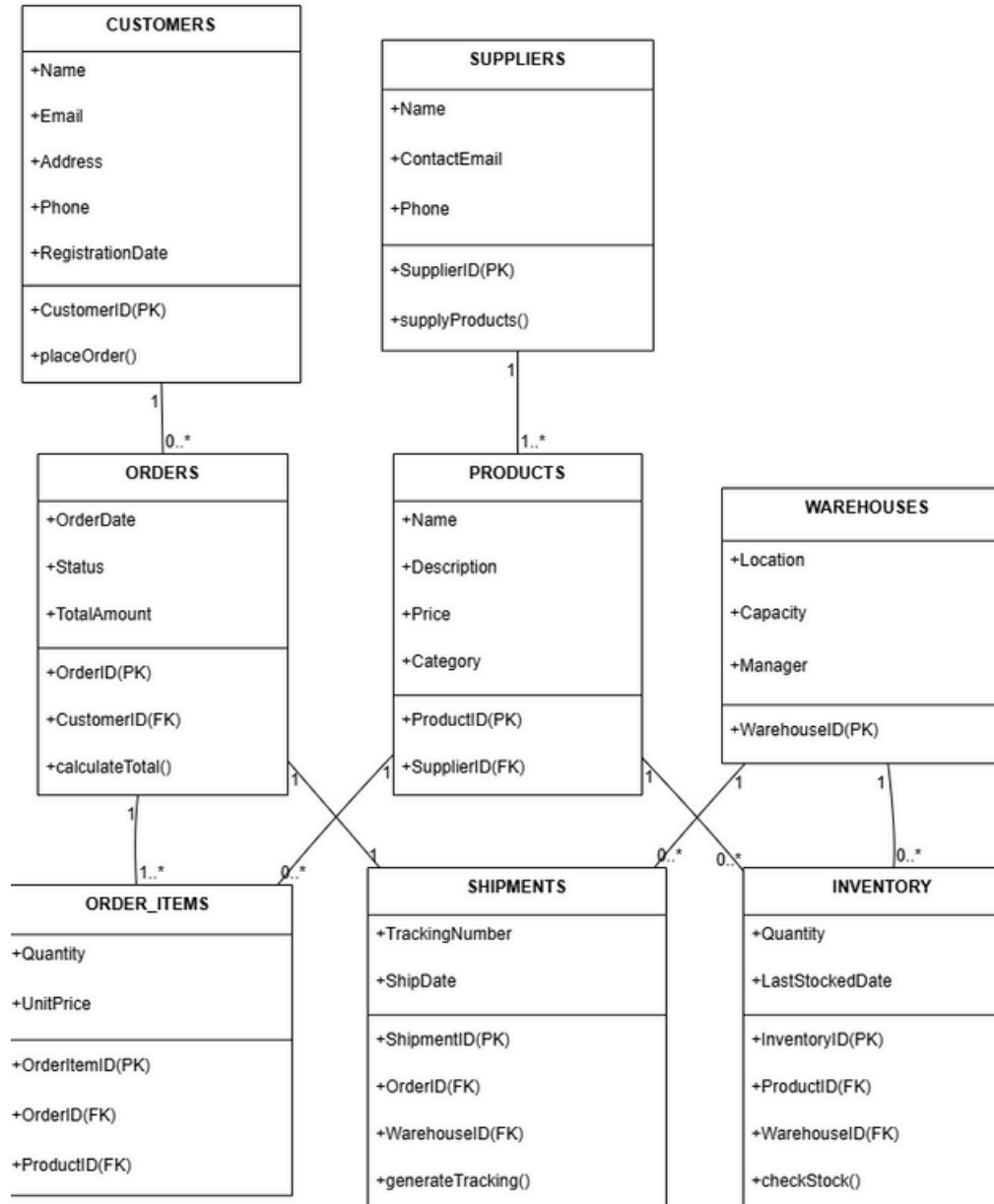
## Shipments

Delivery batches

# MIS PROCESS MODELING (BPMN)



# LOGICAL DATA MODEL HIGHLIGHTS



# IMPLEMENTATION & TESTING

Actions Required:

1 Created all tables using SQL

2 Inserted realistic test data

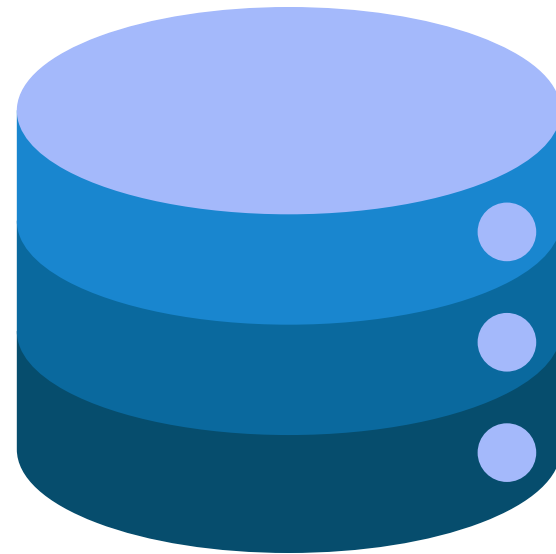
3 Verified data integrity with sample queries



# ADVANCED PL/SQL FEATURES

- 1 Procedures for placing orders
- 2 Triggers for inventory updates
- 3 Packages for modular operations
- 4 Window functions for analytics

ORACLE





# AUDITING & SECURITY

Audits Include:

**01**

Restrict DML  
during weekdays  
and holidays

**02**

Track operations  
in AUDIT\_LOGS

**03**

Holiday table  
and audit  
package

**04**

Aligns with  
compliance  
standards



# THANK YOU!



+250789785870



mushimiyumukizab@gmail.com



KK 44 St, Kicukiro, Nyanza