Business Requirements Document

(BRD)

**MalinaStore**

Mini Project: Outbound – Order Picking and Shipping

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Version 1.1

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**Document Revisions**

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| **Date** | **Version Number** | **Document Changes** |
| 05/09/2025 | 1.1 | Initial draft |
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**Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Signature** | **Date** |
| Project Sponsor | Mr. Ally Ford | COO of MalinaStore |  |  |
| Project Manager | Mr. Phạm B | Project Manager |  |  |
| Client | Mr. Tom Swift | Warehouse Operations Manager of MalinaStore |  |  |
| Client | Mrs. Phan Thị D | Logistics Team Representatives of MalinaStore |  |  |
| QA Lead | Mr. Trần A | QA Lead |  |  |
| Business Analyst | Mrs. Nguyễn Nga | Business Analyst |  |  |

1. **Introduction**
   1. Project Summary
      1. Background

MalinaStore is a global e-commerce corporation. The company’s WMS – Warehouse Management System manages inventory and order fulfillment. When customers place orders through the OMS – Order Management System, the data is transferred to the WMS to execute the Outbound process - Order Picking and Shipping.

The company’s current Outbound – Order Picking and Shipping process is primarily handled through manual operations and fragmented systems. This approach has resulted in:

* Making mistakes in order picking and packing, leading to incorrect deliveries.
* Inefficient workflows, as staff spend significant time on manual data entry and paperwork.
* Limited visibility into order status, making it difficult for management to monitor performance and resolve issues in real time.
* Inconsistent service quality, negatively impacting customer satisfaction and trust.

With increasing order volumes and rising customer expectations, the current process is no longer sustainable. To address these challenges, the company has decided to implement a standardized software product to optimize the Outbound – Order Picking and Shipping process, improve operational efficiency, and strengthen overall business performance.

### Objectives

This product is designed to stardardize the Outbound - Order Picking & Shipping process with the aim of:

* Enhancing accuracy in picking, packing and shipping information.
* Improving process efficiency (minimizing manual errors and reducing processing time).
* Managing inventory easilier and more efficient by accurating inventory updates.
* Strengthening customer satisfaction: Improve on-time delivery rate and order fulfillment accuracy.
* Providing real-time tracking and reporting across the outbound workflow.
* Connecting with shipping partner.
  + 1. Business Driver
* Error Reduction: Frequent picking and shipping errors result in customer dissatisfaction, increased returns, and financial losses.
* Operational Inefficiency: Current manual and semi-automated processes lead to delays, duplication of effort, and higher labor costs.
* Customer Expectations: Customers demand faster delivery times and real-time visibility of their orders, requiring improved system support.
* Data-Driven Management: Management requires accurate and timely data for decision-making, performance tracking, and continuous improvement.
* Competitive Advantage: Standardizing and digitizing outbound processes improve service quality, supporting the company’s strategy to remain competitive in the market.
  1. Project Scope
     1. In Scope Functionality

This project is in the process: OMS transfers orders to WMS until delivery. It includes the following items:

* Standardization of Outbound – Order picking and shipping process.
* Implementation of software solutions to support: Order picking, packing, labeling goods.
* Quality control of this outbound process.
* Provide information about shipping and integration with shipping partner.
* Real-time tracking of order status from picking to shipping.
* Integration with existing systems (e.g., ERP, WMS) for data synchronization.
* Reporting and analytics for outbound process performance (e.g., order accuracy, lead time, on-time delivery rate).
  + 1. Out of Scope Functionality

This project does not include the following items:

* Inbound process (goods receiving, marketing term, sale campain, …)
* Legacy system upgrades unrelated to outbound operations.
* Transportation management after moving goods out of warehouse (route optimization, picking shipping unit, …)
* Inventory focasting
* Customer services applications
  + 1. Assumptions

We shall make the following assumptions for this project:

* The existing OMS, WMS and other systems are stable and support integration with new softwares.
* Standard operating procedures (SOPs) for outbound processes shall be available and followed consistently.
* Network infrastructure and hardware (barcode scanners, label printers, …) shall be sufficient to support system useage.
* All resources required for the project (time, budget, personnel) shall be adequate to keep the project on track.
* All stakeholders (end-user, IT department, …) are responsible for their role; cooperate closely and actively involved in requirements gathering, testing activities.
  + 1. Risks
* Integration Risks: Potential technical challenges in integrating the new software with legacy ERP/WMS systems.
* Slow adoption: End-users get used to the old process and find it’s hard to adapt to new processes and software products which leads to slow adoption.
* Operational Disruption: Transition to the new system may temporarily disrupt outbound operations if not managed carefully.
* Budget and Timeline Risks: Delays in development, testing, or training could lead to cost overruns or missed deadlines.
* Data Quality Issues: Inaccurate or incomplete data in existing systems could impact order accuracy and reporting.
  1. Project Timeline

It’s estimated to take 3.5 months to complete this project and here is proposed project timeline:  
1*. Initiation & Planning (1 week)*

* Define project scope and objectives
* Identify stakeholders
* Approved project charter
  1. *Requirements Gathering & Analysis (2 weeks)*
* Conduct workshops with warehouse, logistics, and IT teams
* Document business requirements (BRD)
* Validate requirements with stakeholders
  1. *Solution Design (2 weeks)*
* Define functional and technical specifications
* Design process workflows and integration points
* Prepare UI/UX wireframes (if applicable)
  1. *Development & Configuration (6 weeks)*
* Configure software modules for picking, packing, and shipping
* Develop required integrations with ERP/WMS
* Set up reporting and analytics features
  1. *Testing (3 weeks)*
* Unit testing, system testing, and integration testing
* User Acceptance Testing (UAT) with business users
* Issue resolution and validation
  1. *Training & Deployment (1 week)*
* Conduct training sessions for warehouse staff and logistics team
* Deploy solutions in production environment
* Monitor initial usage and support transition
  1. *Post-Implementation Review (1 week)*
* Evaluate project outcomes against objectives
* Document lessons learned
* Plan for continuous improvement
  1. Key Stakeholders
* Project sponsor provides overall direction, approves funding and scope.
* Warehouse operations manager of MalinaStore provides operational requirements, validates process workflows.
* Logistics team representatives of MalinaStore are end users, provide input during requirements and UAT.
* Project manager oversees project execution, manages resources, ensures timeline adherence.
* QA team manages testing phases, ensures solution quality and reliability.
* Business Analyst gathers requirements, documents BRD, supports UAT, ensures solution alignment with business needs.

1. **Business Requirements**

2.1 Business process overview

* The OMS sends order details to the WMS
* The WMS creates a picking task and assigns it to a picker
* Picker retrieves items according to the order information
* Packer packs goods, attachs the shipping label
* The WMS updates order status to “Ready to ship”
* Shipper scans the shipping label to receive the order and process it for delivery.

This process is represented by the following diagram:

2.2 Functional Requirements

[WH01\_FR\_001]Standardization of Outbound – Order Picking and Shipping ProcessThe system must provide standardized workflows for order picking, packing, labeling, and shipping across all warehouses.

[WH01\_FR\_002] Error Reduction and Accuracy  
The system must support mechanisms (e.g., barcode scanning, validation checks…) to minimize errors in picking, packing, and shipping activities.

[WH01\_FR\_003] Resource Optimization  
The system must support better allocation of workforce and warehouse space by providing task prioritization and workload balancing features.

[WH01\_FR\_004]Real-time order tracking  
The system must enable users to track the status of outbound orders in real time, from picking through shipping confirmation.

[WH01\_FR\_005] Compliance and Documentation  
The system must generate and manage shipping documentation (e.g., packing lists, shipping labels, invoices) in compliance with company and regulatory requirements.

[WH01\_FR\_006] Integration with Existing Systems  
The system must integrate seamlessly with existing ERP and WMS platforms to ensure data consistency (e.g., inventory levels, order details, shipping updates).

[WH01\_FR\_007] Reporting and Analytics

The system must provide dashboards and reports on outbound process performance, including:

* Order accuracy rate
* Picking/packing efficiency
* On-time shipping performance
* Exception handling statistics

2.3 Non-Functional Requirements

[WH01\_NFR\_001] Scalability  
The system shall be able to handle handle peak load of 10.000 orders per hour.

[WH01\_NFR\_002] Speed and accuracy

Preparing time for an order (picking and packing) shall be less than 30 minutes.

Response time for order status updates shall be under 2 seconds.

Picking accuracy shall be more than 99.8%

[WH01\_NFR\_003] Security  
All system communications shall use secure protocols (TLS/SSL).

[WH01\_NFR\_004] Reliability

The app shall not get broken.

Picker/ Packer’s mobile app shall support offline mode.

1. **Appendices**

3.1 List of Acronyms

OMS: Order Management System

WMS: Warehouse Management System

ERP: Enterprise Resource Planning

QA: Quality Assurance

BRD: Bussiness Requirements Document

UAT: User Acceptance Testing

3.2 Glossary of Terms

FR: Functional Requirements

NFR: Non-functional Requirements

TLS/SSL: Transport Layer Security/Secure Sockets Layer

SOP: Standard Operating Procedure

3.3 Related Documents

SOP-OB-2024-01: Standard Operating Procedure – Outbound Order Picking and Shipping.

ERP System User Guide – Warehouse and Inventory Module.

ISO 9001:2015 – Quality Management Systems Requirements.

3.4 Diagrams

process flowcharts