

# Case Study

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BUSINESS MANAGEMENT EXTENSION CASE STUDY  
DEMO.

## INTRODUCTION

### Client Background

**Company:** XYZ Distributors

**Industry:** Wholesale & Retail Distribution

**ERP System:** Microsoft Dynamics 365 Business Central

XYZ Distributors specializes in wholesale distribution of consumer goods across multiple locations. They rely on **Microsoft Dynamics 365 Business Central** for inventory management, sales processing, and customer relationships. However, the company faces operational inefficiencies due to **limited customization options** in their ERP system.

### Challenges

XYZ Distributors identified several pain points in their current system:

#### 1. Limited Customer Insights

- Business Central lacks built-in **customer loyalty tracking** to reward repeat buyers.
- No easy way to analyse **customer purchase trends** within the system.

#### 2. Inefficient Order Processing & Stock Management

- Sales teams struggle with **real-time stock visibility**, leading to order delays.
- Backorders frequently occur due to a **lack of automated stock level alerts**.

#### 3. Manual Data Handling

- Customer and sales data are manually imported/exported via spreadsheets, increasing errors.
- Integration with third-party **shipping and invoicing systems is not automated**.



#### 4. Lack of Role-Based Security

- Certain employees have **unnecessary access** to critical financial records.
- Managers need **custom permission sets** to approve discounts above a threshold.

#### REQUIREMENT BREAKDOWN

<u>Functional</u>	<u>Non-Functional</u>
- Creation of the new Loyalty program by adding the loyalty points field to the customer table aswell as displaying this field.	- Must be compatible with Microsoft Dynamics Business Central v22 and future versions.
- Addition of a loyalty points calculation module.	- Web service responses should be <b>fetchd within 2 seconds</b> for optimal user experience.
- Addition of a query that displays the top customers with loyalty points.	- The system should handle <b>at least 100 concurrent users</b> without performance degradation.
- Extension of the Sales Order page to show real time stock levels.	- Security should comply with <b>Business Central's standard authentication model</b> .
- Implement an <b>automated backorder alert</b> when stock falls below a threshold.	- The extension should be <b>modular and easy to upgrade</b> for future enhancements.
- Ensure sales teams can <b>check stock availability before confirming orders</b> .	
- Addition of a XMLPort module to import / export customer & sales data.	



- Create a <b>SOAP/OData web service</b> to share customer data with external systems.	
- Enable real-time <b>integration with third-party shipping and invoicing providers</b> .	
- Implement <b>custom permission sets</b> restricting financial data access.	
- Enforce an <b>approval workflow</b> for sales discounts above a defined limit.	
- Restrict access to <b>sales reports and customer financial data</b> based on user roles.	

## Work Breakdown Structure (WBS)

<u>Phase</u>	<u>Description</u>
1- Planning & Design.	<p>Define project setup parameters in the planning stage – Identify table extensions, queries and reports.</p> <p>Designing the permissions sets and how they will work.</p> <p>Define how the XMLport &amp; web services will work.</p>
2- Core Module Development.	<p>Core Module Development</p> <p><u>Development of the Setup wizard</u>            -Setup table for configuration properties.            -Setup Page for navigation and process.</p> <p><u>Development of the customer loyalty program.</u></p>



	<ul style="list-style-type: none"> <li>-Extend the customer table</li> <li>-Implement calculation work unit.</li> <li>-Develop the top customer loyalty query</li> </ul> <p><u>Sales &amp; Inventory Management</u></p> <ul style="list-style-type: none"> <li>-Extend the Sales Order page to show real time stock levels.</li> <li>-Implement calculation codeunit</li> <li>-Develop query to track stock usage</li> </ul>
3- User Interface & Reporting.	<p><u>UI Enhancements</u></p> <ul style="list-style-type: none"> <li>- Extend Customer Card page to display <b>Loyalty Points</b>.</li> <li>- Extend Sales Order page for <b>stock alerts</b>.</li> </ul> <p><u>Reports &amp; Queries</u></p> <ul style="list-style-type: none"> <li>- Implement a <b>Customer Loyalty Report</b>.</li> <li>- Implement a <b>Sales &amp; Inventory Overview Report</b>.</li> </ul>
4- Data Exchange & Integration.	<p><u>XMLPort for Data Import/Export</u></p> <ul style="list-style-type: none"> <li>- Develop XMLPort to <b>import/export</b> customer &amp; sales data.</li> </ul> <p><u>Web Services (SOAP/OData) (Optional)</u></p> <ul style="list-style-type: none"> <li>- Implement Codeunit for <b>customer data retrieval (OData API)</b>.</li> <li>- Implement Codeunit for <b>order processing via external API (SOAP Web Service)</b>.</li> </ul>
5- Security & Workflow Automation.	<p><u>Role-Based Permissions</u></p> <ul style="list-style-type: none"> <li>- Create Permission Sets for sales &amp; management teams.</li> </ul>



	<u>Discount Approval Workflow</u> - Develop Codeunit for <b>approval logic</b> on discounts.
6- Testing	<u>Unit &amp; Integration Testing</u> - Write Test Codeunits for loyalty logic, stock tracking, and workflows. - Test XMLPort & Web Services integration.

