

Enhancing Loblyst E-Commerce Platform

24F - INFO8687- Team 4

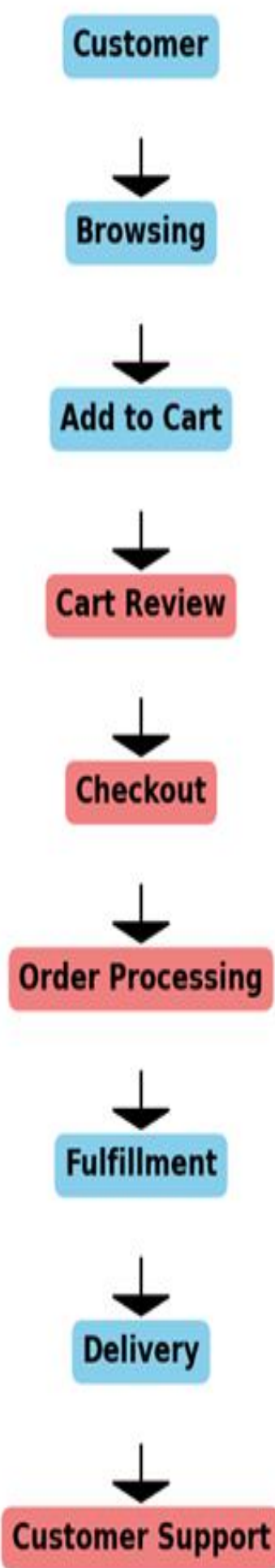
Conestoga College - ITBA

INTRODUCTION

This storyboard provides a detailed visualization of the Loblyst e-commerce platform's current state, challenges, and potential improvements. It highlights the operational workflow, technical architecture, and strategic options, offering stakeholders a clear and structured representation of existing limitations and areas of improvement. By illustrating impacts and risks associated with the current state and proposed solutions, this storyboard aims to support informed decision-making and foster alignment among business and technical stakeholders.

CURRENT STATE

Customer Order Process Flow



The process flow diagram provided illustrates the following **phases**:

- Customer actions:** Signing in, product browsing, and checkout.
- Fulfilment activities:** Order preparation by store employees and drivers.
- Issue resolution:** Managed by customer support.

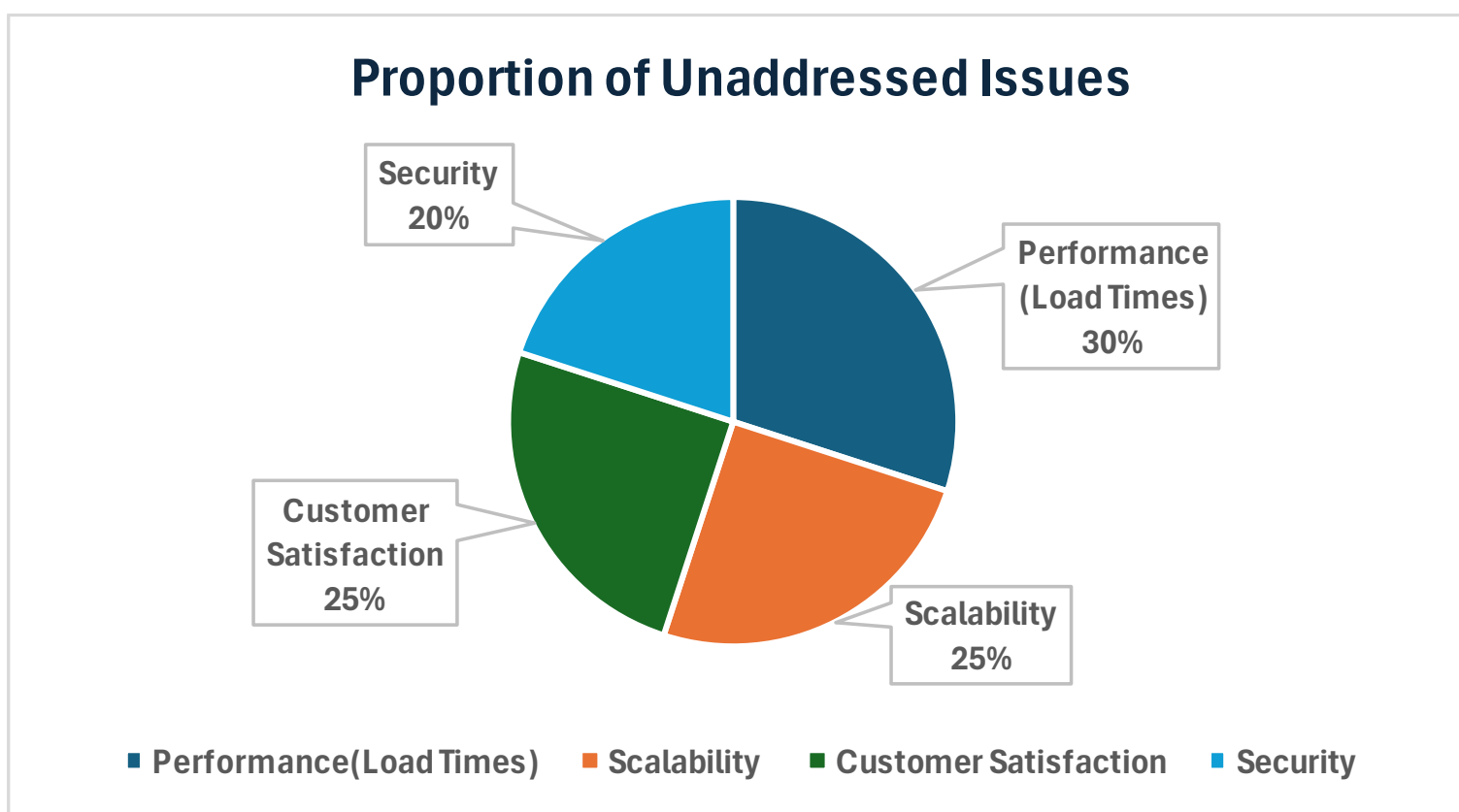
Inputs and Outputs

- Inputs:** Product inventory data, customer account details, payment information.
- Outputs:** Confirmed orders, packed items, notifications (email/SMS), and resolved customer issues.

Observations:

- Current Gaps:** Operational delays due to stock unavailability or manual substitutions may hinder customer satisfaction.
- Opportunities for Improvement:** Automating substitutions, enhancing inventory tracking, and streamlining fulfilment processes could significantly improve efficiency and the overall user experience.

PAIN POINTS



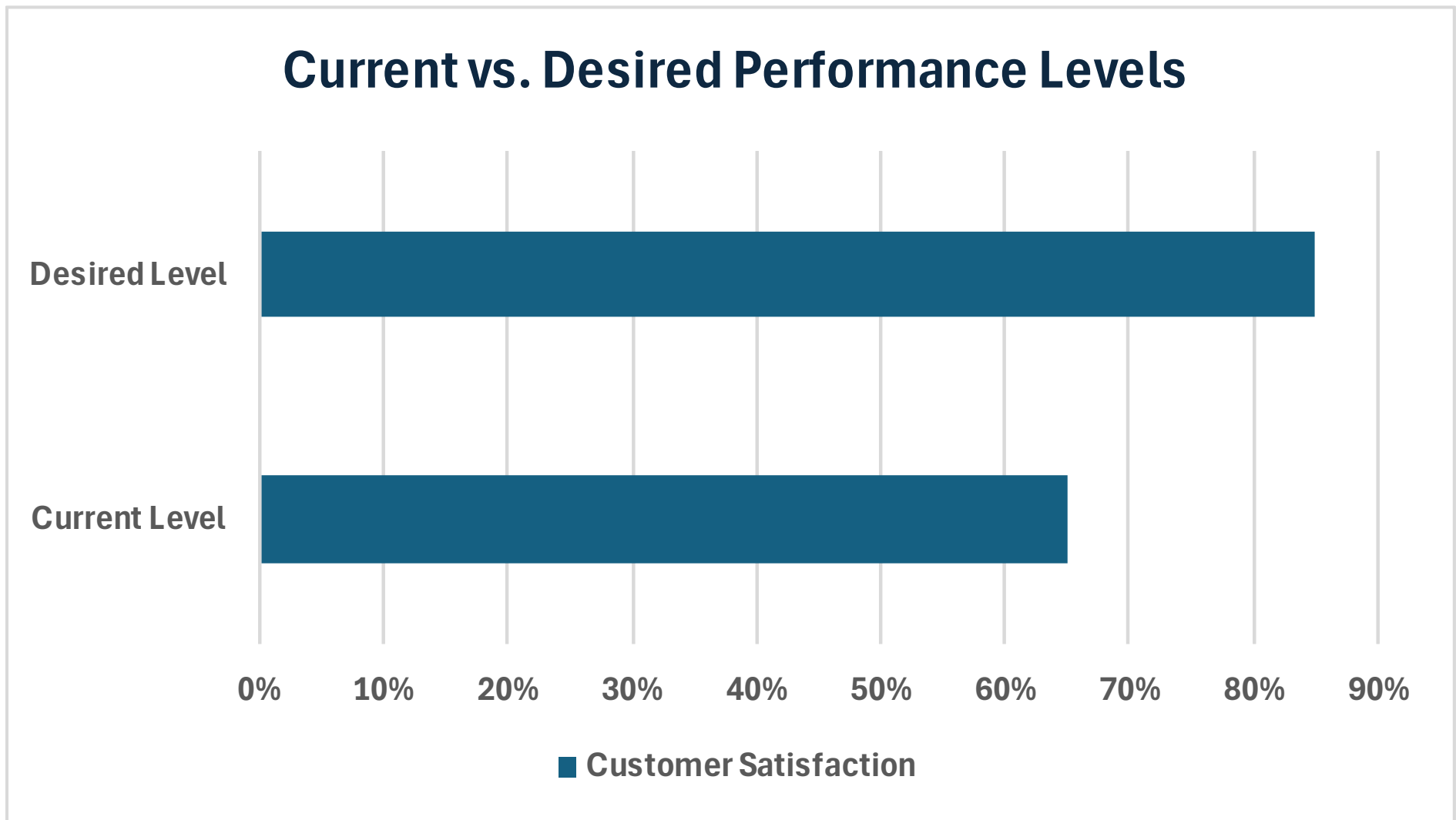
Callouts:

- Performance and Scalability** are the most critical pain points, requiring immediate technical optimizations.
- Customer Satisfaction** is closely tied to performance and support effectiveness, needing improvement in user-centric design and service workflows.
- Security concerns**, while lower in proportion, have the potential for severe long-term consequences if not addressed.

PROPOSED SOLUTION

KPI	Current Performance	Industry Best Practices/Target	Gap	Action Required
Website Load Time	11 seconds	2-5 seconds	6-9 seconds	Enhance page loading by optimizing the assets, using content delivery networks, and image compression.
Conversion Rate	3-5%	Minimum of 10% for a high market share	5% gap in conversion rate	Improve UI/X, accelerate the checkout processes, and optimize navigation to enhance the conversion rate.
Bounce Rate	45-50%	<30%	15-20% higher bounce rate	Enhance user experience and page loading time to retain more visitors.
Customer Satisfaction (CSAT)	2.5 out of 5	4 to 4.5	1.5 to 2 lower customer satisfaction	Integrate loyalty programs and make checkout processes easier to enhance customer satisfaction.
Mobile Responsiveness	Average performance due to slower load times.	High responsiveness with <3 sec load time	Significant performance gap, especially on mobile	Ensure that the design is mobile-first, with responsive layouts and content optimization for mobile users.
Order Fulfillment Time	2 to 3 Days	Same-day or next-day delivery for standard	1-2 days slower than industry best practices	Delays in order fulfillment result in lower customer satisfaction and retention.
Geographic Reach	Limited to specific regions in Canada (GTA)	Expand to other regions	1-5 years needed to new stores.	Streamline supply chain and expand regional delivery options to reduce fulfillment time.
Average Order Value (AOV)	\$80	> \$110	>\$25	Upselling and cross-selling, along with personalized promotions, may improve AOV.

BENEFITS AND IMPACTS



Major Benefits

- Increased Customer Retention
- Higher Conversion Rates
- Enhanced Customer Satisfaction
- Faster Order Fulfilment
- Revenue Growth
- Expanded Market Reach
- Competitive Advantage
- Cost Efficiency
- Improved Brand Perception

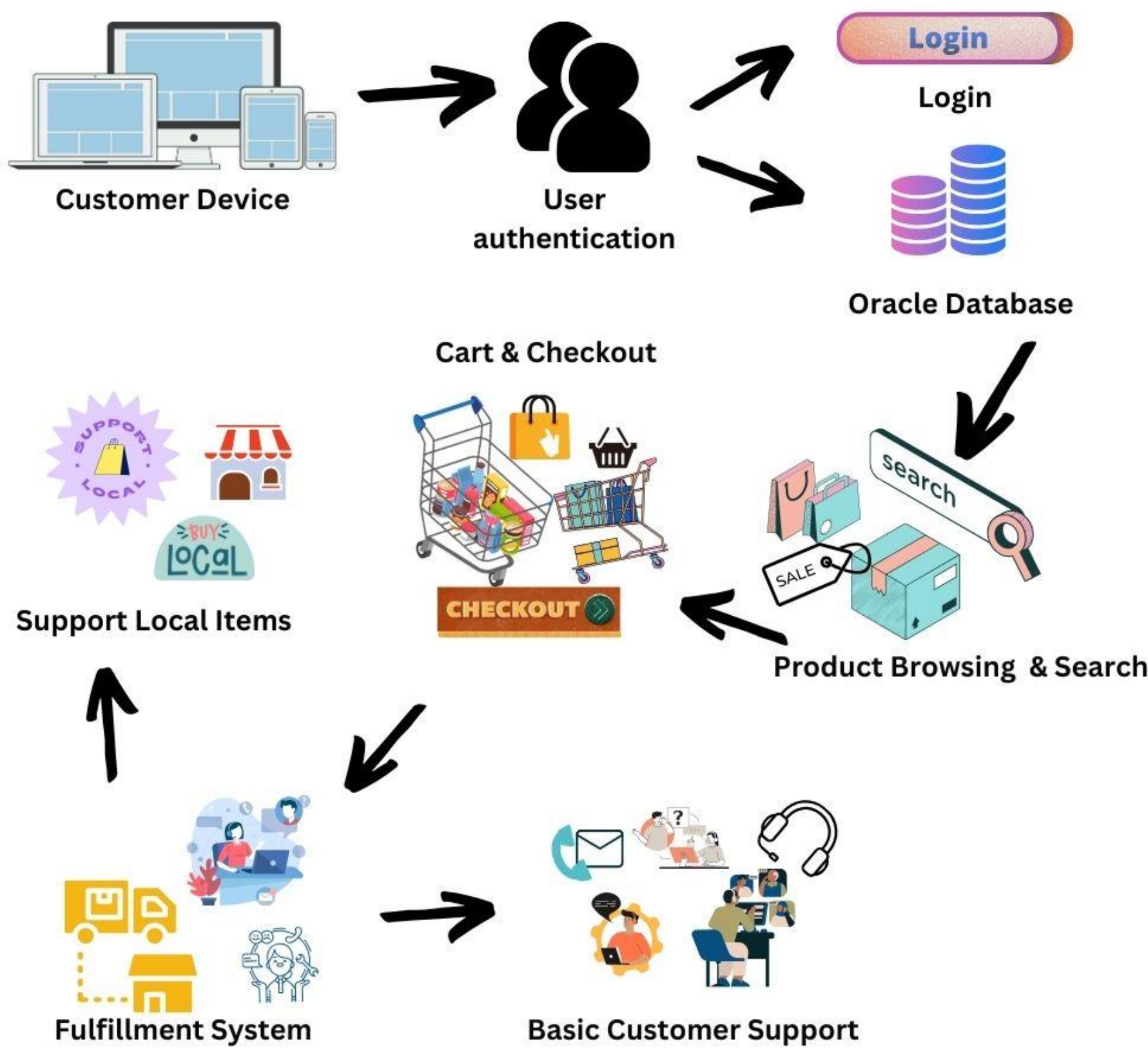
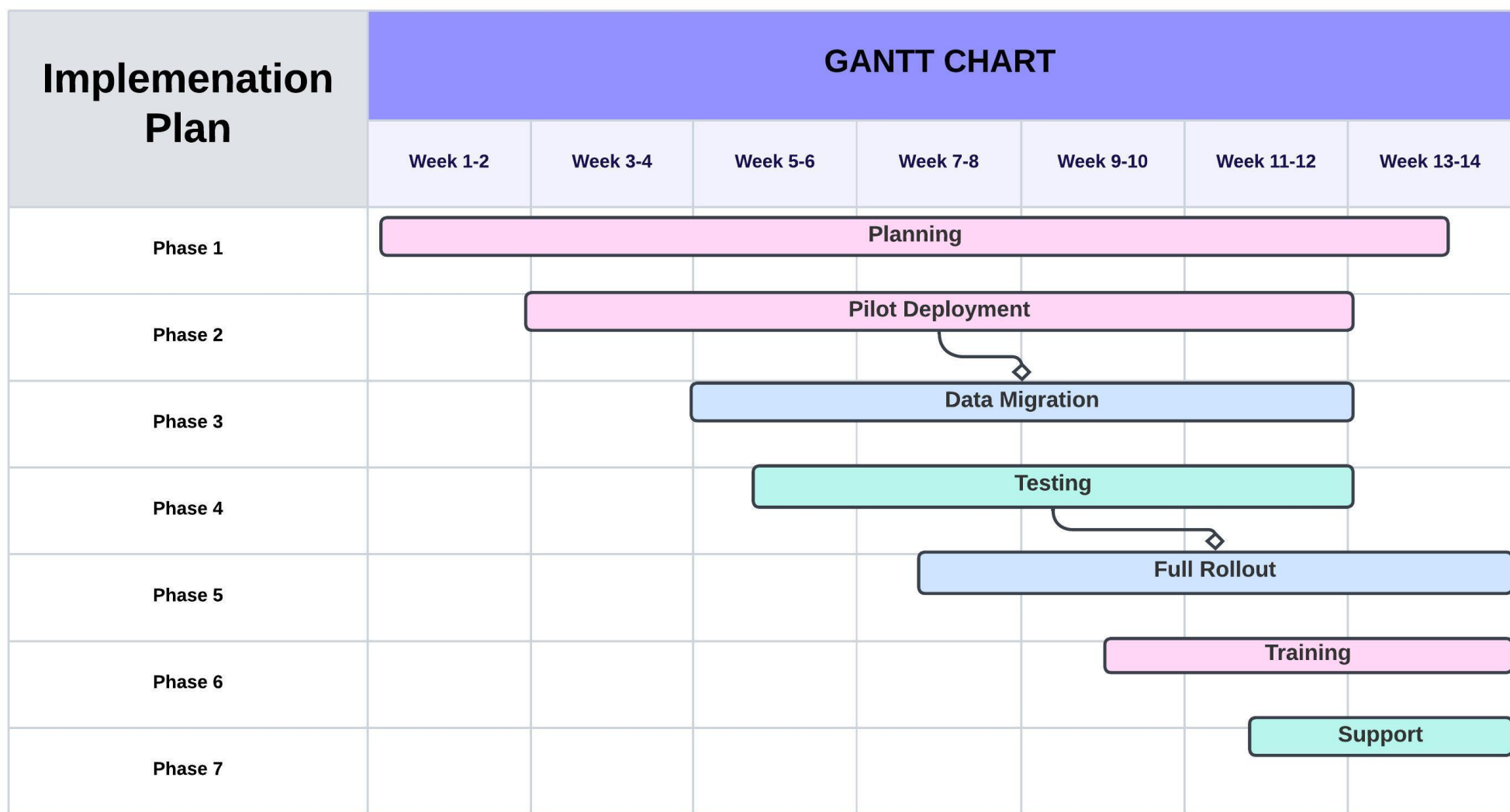
Supporting Data

•**Statistics:** Industry studies show that every second of load time reduction improves conversion rates by up to 7%.

•**Testimonials:** Existing customer surveys highlight the importance of fast delivery and user-friendly interfaces as key satisfaction drivers.

By addressing these areas, the business can realize higher revenue, cost efficiency, and customer satisfaction, ultimately leading to sustainable growth.

IMPLEMENTATION PLAN



System Architecture Diagram (High-Level Design)

Workflow Summary:

1.User Journey:

- The user logs in from their device and interacts with the platform for product browsing, cart management, and checkout.

2.Backend Integration:

- Oracle Database supports login authentication and other database transactions (e.g., product data and order details).

3.Order Fulfilment:

- After checkout, orders are managed by the fulfilment system.

4.Support Services:

- Post-sale and account-related support enhance the user experience.

RISK AND MITIGATION

Risk	Impact	Mitigation Strategy
Reduced Customer Satisfaction	High	Accept potential customer attrition as a consequence.
Scalability Limitations	Medium	Plan for processing limits during peak demand.
Security Vulnerabilities	High	Monitor and maintain minimal security standards.
Competitive Disadvantage	Medium	Consider future updates as competitors advance.

CONCLUSION

The system architecture presented here encapsulates a user-centric and streamlined approach to e-commerce, balancing functionality, scalability, and efficiency. By integrating key components such as seamless user authentication, robust product browsing, efficient checkout processes, and localized product support, this architecture ensures a comprehensive and satisfying customer experience. The inclusion of a fulfilment system and responsive customer support guarantees operational excellence and enhances post-purchase satisfaction.

This design not only prioritizes user convenience but also demonstrates a commitment to supporting local businesses, reflecting the platform's broader vision. With a scalable backend powered by the Oracle database, this system is well-equipped to handle growth while maintaining reliability. Overall, this architecture sets a solid foundation for delivering a dynamic and competitive e-commerce platform that aligns with both customer needs and business goal.

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