

Shopify - PayLater Integration Case Study

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Project Overview

This project focused on integrating a Buy Now, Pay Later (PayLater) payment experience into a Shopify-based online store. Although my primary responsibility was backend development, the outcome directly influenced the **end-to-end customer journey**, communication clarity, and overall checkout experience.

The goal was to create a frictionless post-checkout payment flow by automating invoice generation and delivering instant, user-friendly payment links to customers.

Problem Statement

Shopify's checkout does not allow unapproved third-party payment gateways to appear as payment options or redirect customers outside the platform. This created a UX challenge:

- Customers **could not select PayLater at checkout**.
- The PayLater team had **no way to integrate their gateway in the native flow**.
- The payment experience became partially manual and inconsistent.

To solve this, I identified an approach using **Shopify order creation webhooks**, enabling a smooth post-checkout PayLater flow without modifying the checkout UI.

UX Perspective: Why This Problem Mattered

- Customers were confused about how to pay after placing an order.
- The payment link was sometimes delayed, reducing trust.
- The brand experience felt inconsistent (manual messages, lack of automation).
- Admin teams had extra manual steps, causing slower customer support.

The new workflow needed to feel **instant, reliable, and intuitive** to end users.

My Role

As the backend developer, I designed and implemented a system that improved both the **technical workflow** and the **customer experience**.

Responsibilities Included:

- Listening to Shopify order creation webhooks
- Validating customer and order data
- Generating PayLater invoices through the API
- Handling errors and API response inconsistencies
- Automating email delivery of payment links
- Updating Shopify timelines for transparency

System Workflow (User-Centered View)

Before:

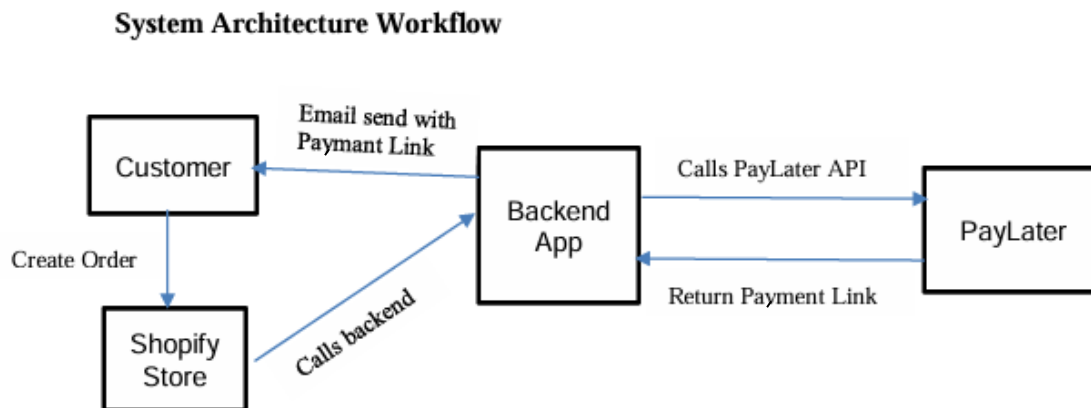
Customer placed an order → Waited manually for a payment link → Inconsistent communication.

After (New Experience):

1. Customer places an order
2. System instantly generates a PayLater invoice
3. Customer receives a clear, secure payment link via email

4. Customer completes payment using PayLater
5. Shopify order is automatically updated

This eliminated uncertainty and created a **smooth, predictable experience**.



Technical Highlights

- **Retry Logic:** Ensures customers always receive links even if APIs fail temporarily.
- **Structured Logging:** Helps support teams understand the flow and resolve issues faster.
- **Secure Authentication:** Protects customer data and increases trust in the payment process.
- **Idempotency:** Prevents duplicate invoices, avoiding confusion for customers.

These improvements directly support a **stable, low-friction user experience**.

```
All logs v Q Search Live tail GMT+5:30
Sep 27 01:19:28 PM ttdwv Received Shopify order: 6457696649464
Sep 27 01:19:28 PM ttdwv Sending to PayLater: {
Sep 27 01:19:28 PM ttdwv   merchantId: '138',
Sep 27 01:19:28 PM ttdwv   outletId: '1900000061',
Sep 27 01:19:28 PM ttdwv   currency: 'QAR',
Sep 27 01:19:28 PM ttdwv   amount: '3315.00',
Sep 27 01:19:28 PM ttdwv   orderId: '6457696649464-1758959368916',
Sep 27 01:19:28 PM ttdwv   successRedirectUrl: 'https://midev-store.myshopify.com/pages/paylater-success',
Sep 27 01:19:28 PM ttdwv   failRedirectUrl: 'https://midev-store.myshopify.com/pages/paylater-failed'
Sep 27 01:19:28 PM ttdwv }
Sep 27 01:19:29 PM ttdwv PayLater API response: {
Sep 27 01:19:29 PM ttdwv   paymentLinkUrl: 'https://payments-sandbox.paylaterapp.com/paylink/25624e4c-75a9-4c94-9366-b6f887353d21?v=2&token=4e332f39-5c38-4d58-88e5-b5f876e7dc5d&channel-web'
Sep 27 01:19:29 PM ttdwv }
Sep 27 01:19:29 PM ttdwv BNPL payment link for Shopify order 6457696649464: https://payments-sandbox.paylaterapp.com/paylink/25624e4c-75a9-4c94-9366-b6f887353d21?v=2&token=4e332f39-5c38-4d58-88e5-b5f876e7dc5d&channel-web
```

Results & UX Impact

- **Instant communication:** Customers now get payment links immediately after ordering.
- **Zero manual steps:** No waiting, no uncertainty.
- **Higher reliability:** Automated systems reduce errors and delays.
- **Consistent brand experience:** A smoother, more trustworthy post-checkout flow.

This integration improved both **operational efficiency** and **customer satisfaction**.

Platform Limitation & Creative Solution

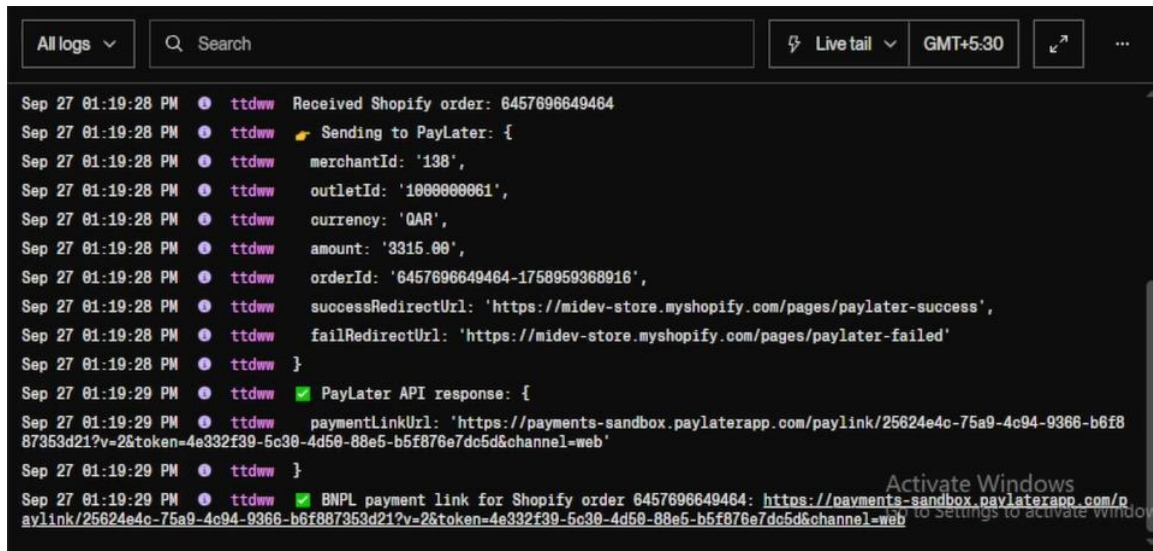
Shopify restricts third-party payment plugins unless approved. This limitation initially blocked PayLater from being added to the checkout UI.

To overcome this, I designed a workflow that still preserved an **excellent customer experience** without modifying Shopify's interface:

- Used Shopify order webhooks
- Triggered invoice creation automatically
- Delivered payment links instantly via email

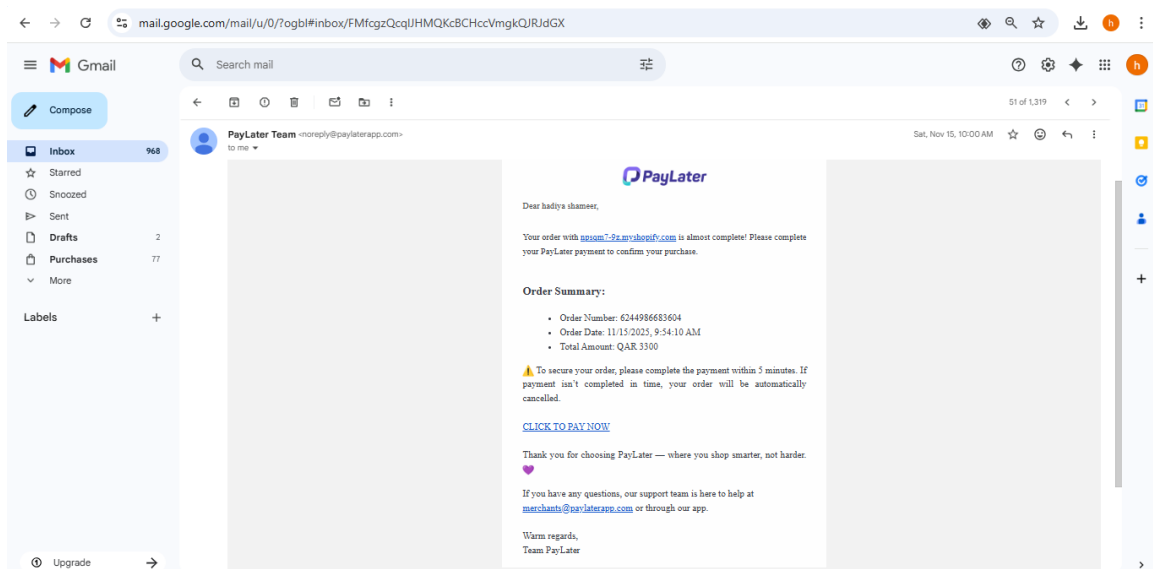
This demonstrates my ability to **design user-centered solutions despite platform constraints** - a valuable skill in UX roles.

Appendix (Screenshots & Evidence)



```
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```

Logs



Email with Payment Link