

# 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.

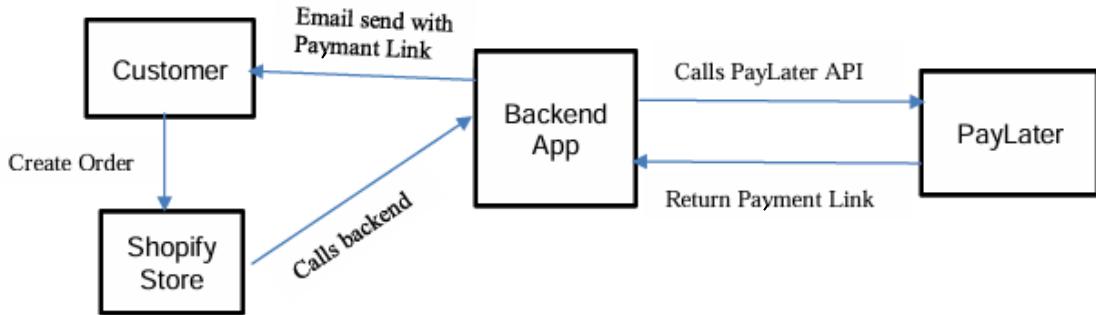
### After (New Experience):

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**.

### System Architecture Workflow



### 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**.

A screenshot of a log viewer interface. The logs show the following sequence of events:

- Sep 27 01:19:28 PM ttdww Received Shopify order: 8457696649464
- Sep 27 01:19:28 PM ttdww Sending to PayLater: {
- Sep 27 01:19:28 PM ttdww merchantId: '138',
- Sep 27 01:19:28 PM ttdww outletId: '1000000061',
- Sep 27 01:19:28 PM ttdww currency: 'QAR',
- Sep 27 01:19:28 PM ttdww amount: '3315.00',
- Sep 27 01:19:28 PM ttdww orderId: '6457696649464-1758959368916',
- Sep 27 01:19:28 PM ttdww successRedirectUrl: 'https://midev-store.myshopify.com/pages/paylater-success',
- Sep 27 01:19:28 PM ttdww failRedirectUrl: 'https://midev-store.myshopify.com/pages/paylater-failed'
- Sep 27 01:19:28 PM ttdww }
- Sep 27 01:19:29 PM ttdww PayLater API response: {
- Sep 27 01:19:29 PM ttdww paymentLinkUrl: 'https://payments-sandbox.paylaterapp.com/paylink/25624e4c-75a9-4c94-9366-b6f887353d21?v=2&token=4e332f39-5c30-4d50-88e5-b5f876e7dc5d&channel=web'
- Sep 27 01:19:29 PM ttdww Activate Windows
- Sep 27 01:19:29 PM ttdww BNPL payment link for Shopify order 8457696649464: <https://payments-sandbox.paylaterapp.com/paylink/25624e4c-75a9-4c94-9366-b6f887353d21?v=2&token=4e332f39-5c30-4d50-88e5-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

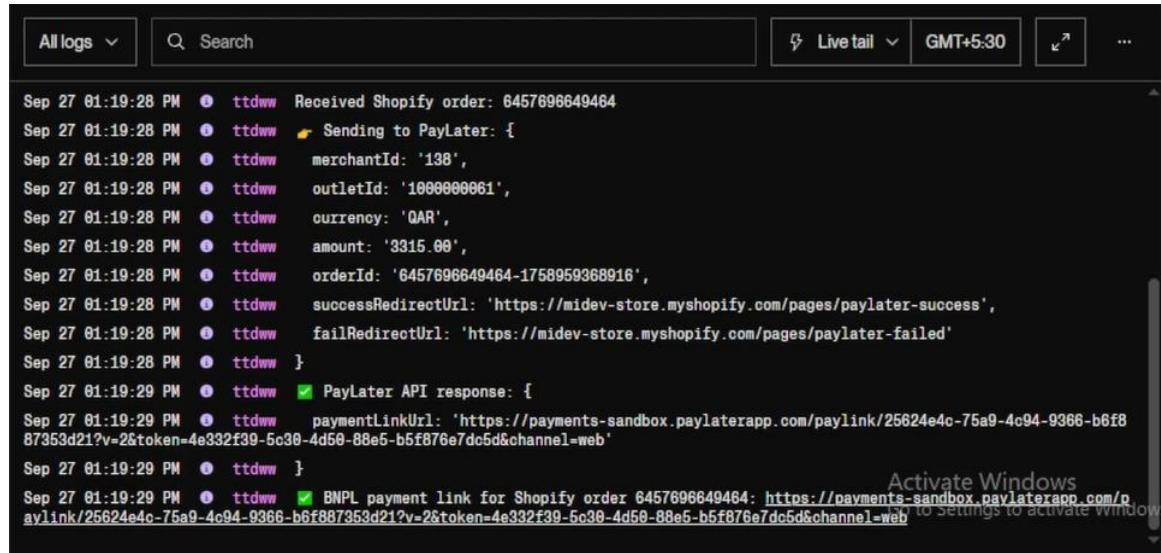
Shopify restricts third-party payment plugins unless approved. This limitation initially blocked PayLater from being added to the checkout UI.

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)

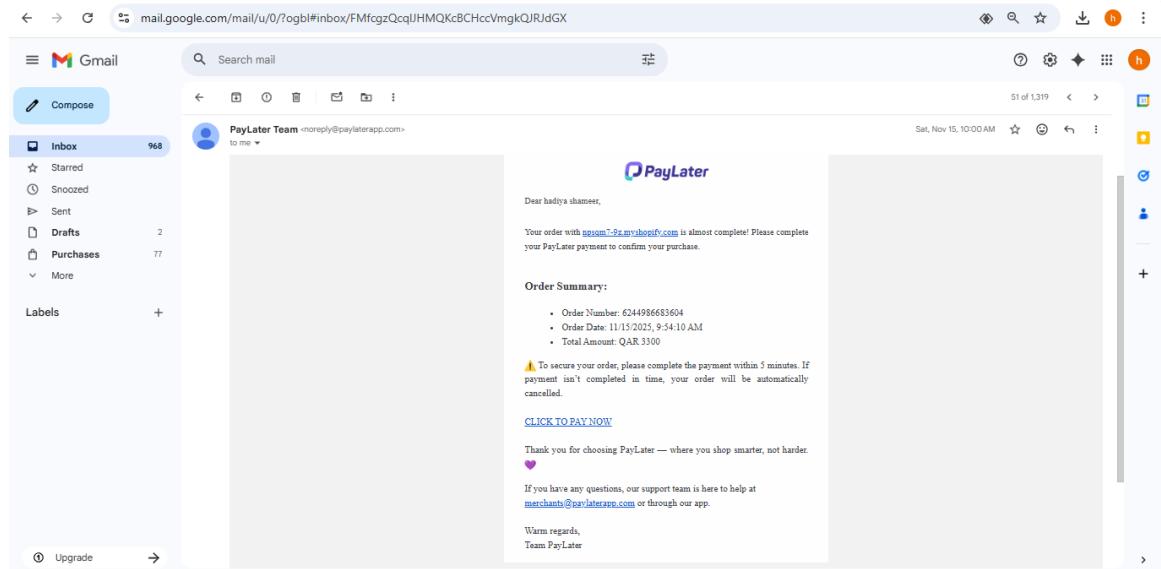


A screenshot of a log viewer interface. At the top, there are buttons for 'All logs' (with a dropdown arrow), 'Search' (with a magnifying glass icon), 'Live tail' (with a play/pause icon), 'GMT+5:30' (with a dropdown arrow), and a refresh/circular arrow icon. Below the header, the log entries are listed in a scrollable area:

```
Sep 27 01:19:28 PM ttdww Received Shopify order: 6457696649464
Sep 27 01:19:28 PM ttdww Sending to PayLater: {
Sep 27 01:19:28 PM ttdww merchantId: '138',
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```

The log ends with a watermark: "Activate Windows" and "Settings to activate Window".

## Logs



## Email with Payment Link