Payment link type in HTML

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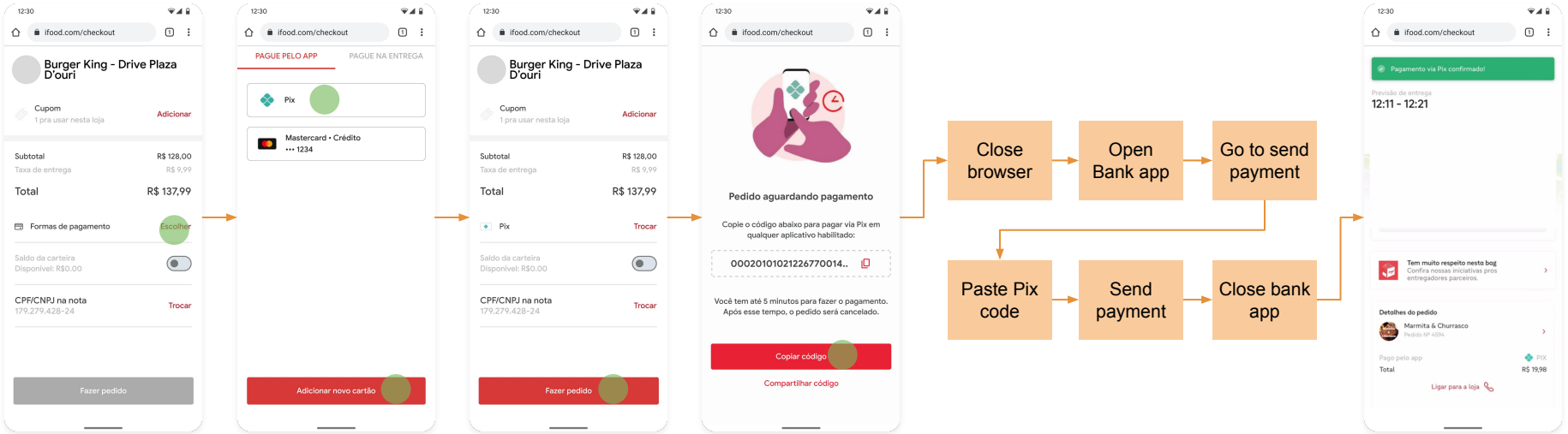
Push payments

- Payment is initiated by the payer (consumer)
- Current UX
  - Desktop
    - Scan a QR and complete payment with a supported payment Android/iOS app
    - Login to a payment website and complete payment
  - Mobile
    - Login to a payment website and complete payment
    - Launch a payment Android/iOS app and complete payment
    - Copy payment code and paste into a bank app to complete payment
- Merchant specifies destination & amount → Wait for payment to happen
  - Poll or web-hooks.

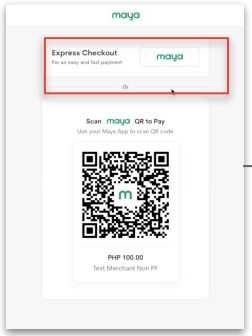
Example 1: Brazil PIX

- Payment code generated by the merchant/PSP
  - Based on EMVCo spec for Merchant-presented-QR
  - TLV (type-length-value) format
- User Journey
  - Desktop
    - A QR is displayed and the user scans it with their bank app
  - Mobile
    - A code is displayed and the user copies the code into their bank app
- Pain points
  - Multiple manual steps involved
  - QR code scanning issues

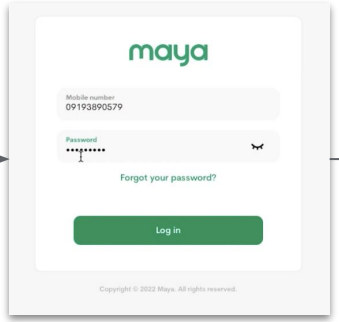
PIX user journey



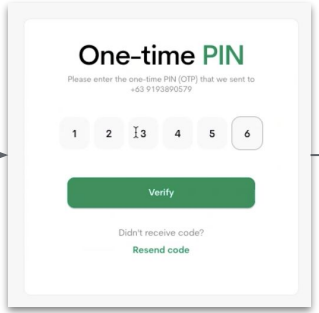
Example 2: Maya (Philippines) payment via web redirect



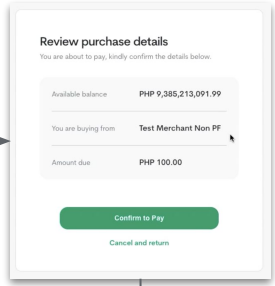
User checks out and selects their payment app



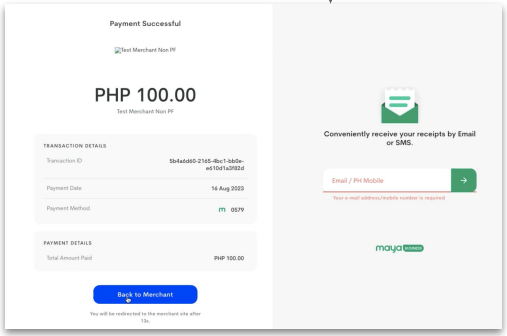
User is redirected to a login page. User logs in



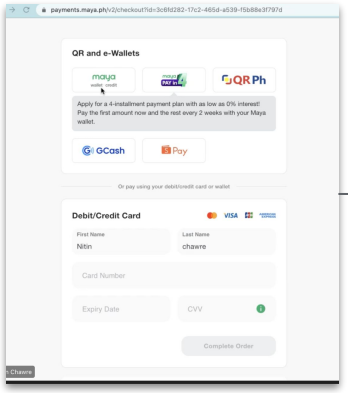
User is shown a one time PIN for additional auth



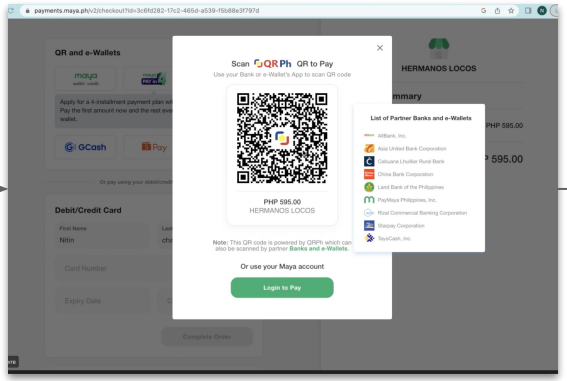
Confirmation screen



Example 3: QR Ph on desktop



User selects the QR Ph option



User views the QR Ph code

User gets their mobile device and opens up their favorite payment app

User scans the QR code on their mobile device and completes payment

Merchant shows a payment confirmation page and a text/email is sent to the user

QR PH = Philippines Gov. standard based on EMVCo.

Can the browser assist the user for a better experience?

- A better solution requires the merchant to communicate with the browser
- Can Android intents help?
  - Only on Android (not multi-device journey -- does not offer anything on desktop)
- Can Payment Request API help?
  - Requires active integration by the merchant
    - Explicitly trigger the API
    - Handle further communication
    - UX implications for merchant’s checkout page
- A lightweight and passive method can be utilized instead

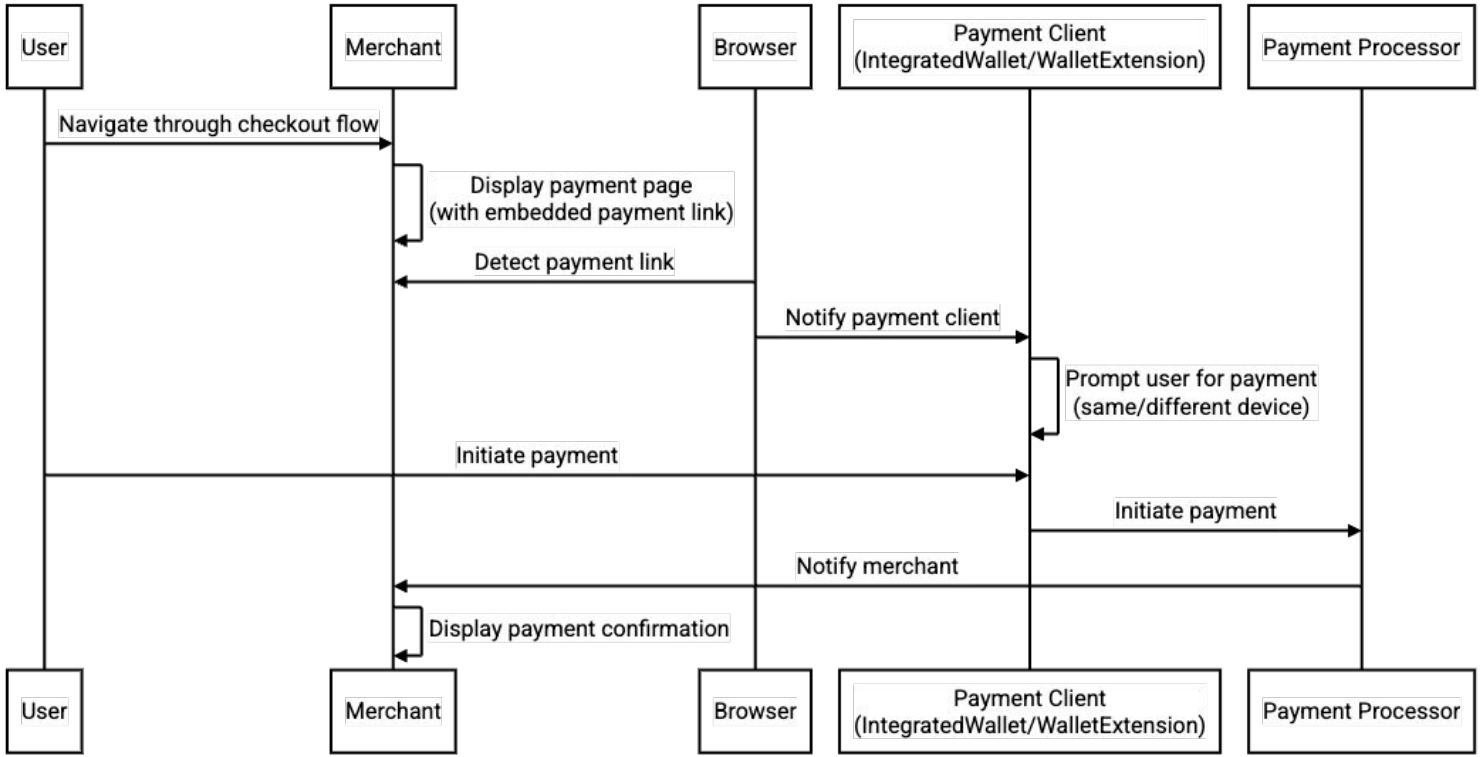
Payment link

- Merchant/PSP can embed a “payment” link in HTML
- The link can capture the content of the QR/code-to-copy
- Example
  - **<link rel=”payment” href="content of the QR/code-to-copy">**
- Browser can detect the “payment” link and assist the user
- Advantages of the approach
  - Declarative
    - Makes it easy to add
  - Optional feature for merchants and PSPs, so least intrusive for existing flows
    - Not mandatory for merchants to use this to make payments happen

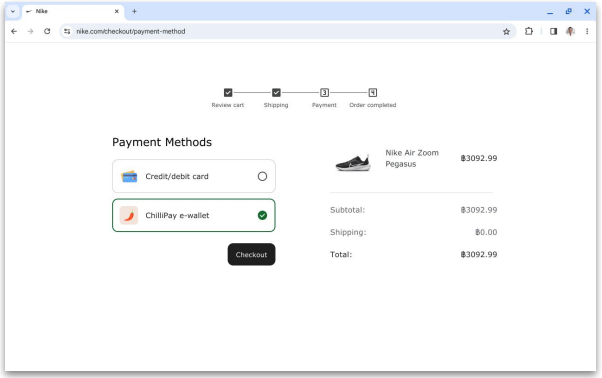
User journey

- Merchant/PSP embeds a “payment” link in the payment page
- Browser detects the “payment” link
- Browser notifies the payment client chosen by user
  - Integrated wallets
  - Browser wallet extensions
- The payment client takes over the payment flow
- User completes payment on the payment client
- Merchant/PSP shows a payment confirmation page

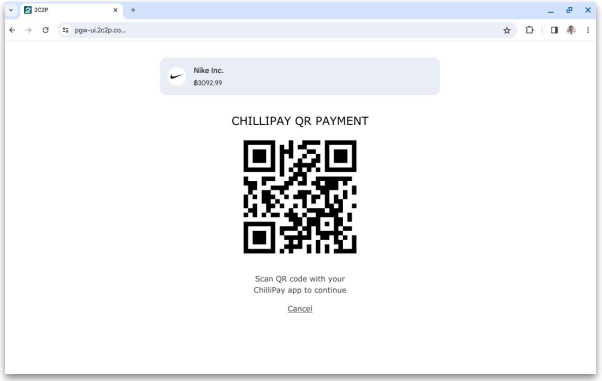
Sequence diagram



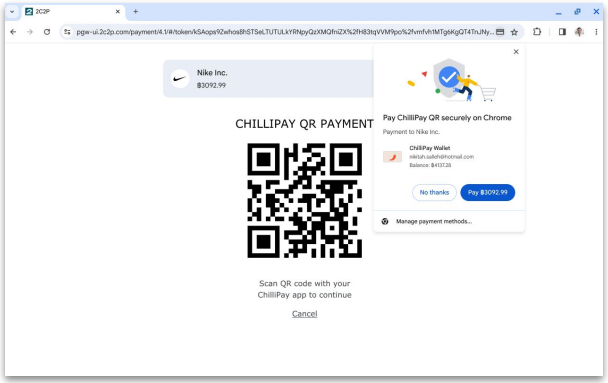
Improved user journey 1 - Payment QR on desktop



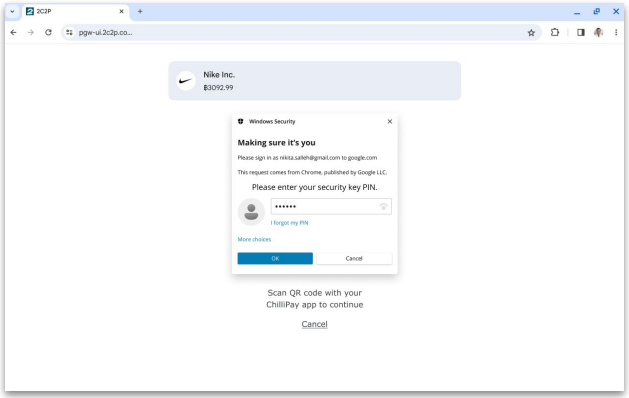
User checks out on the merchant website and picks their e-wallet of choice

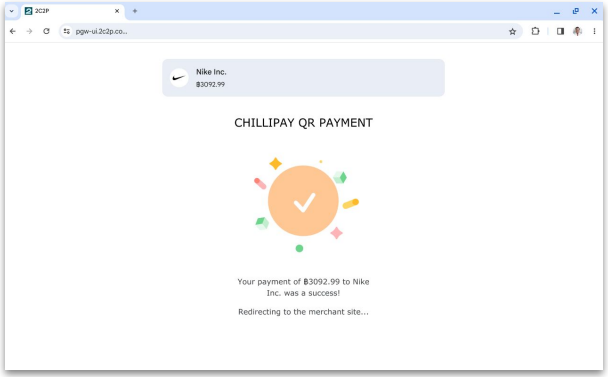


An e-wallet specific QR or interoperable QR is visible



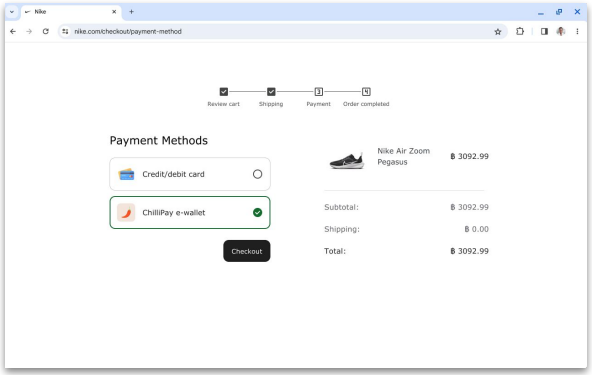
Chrome triggers a payment flow once the QR is detected via the paylink

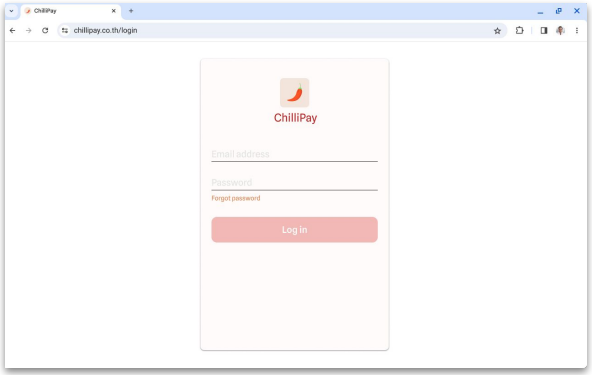


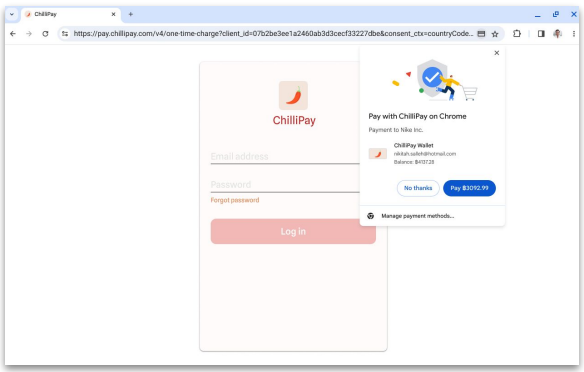


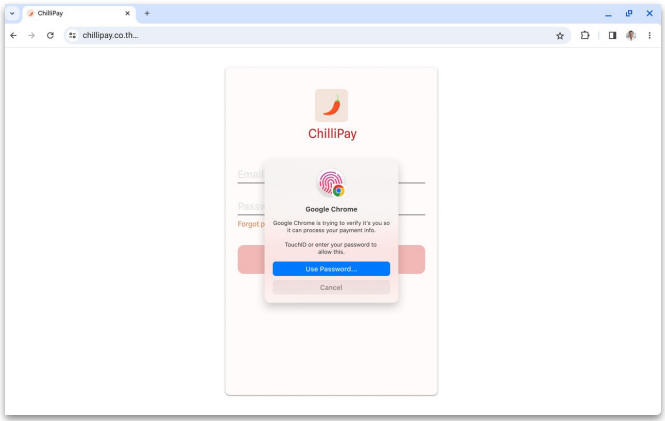
Auth and transaction are completed

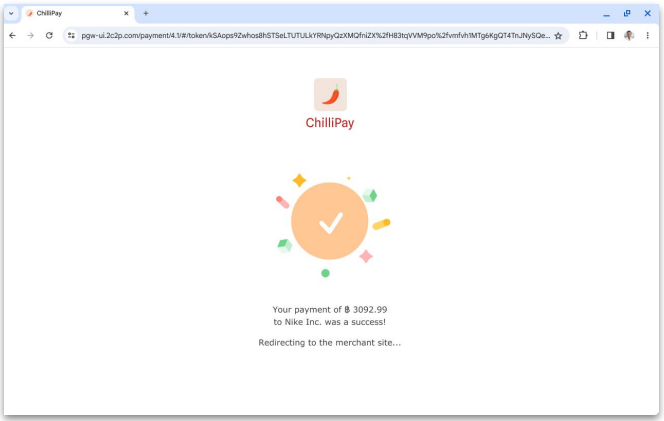
Improved user journey 2 - Web redirect on desktop



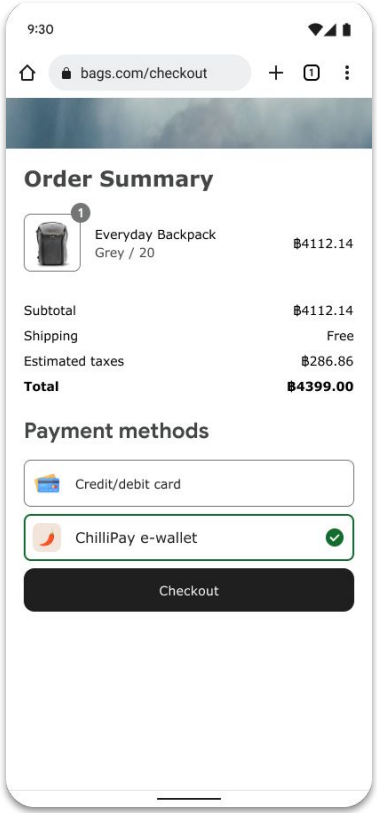


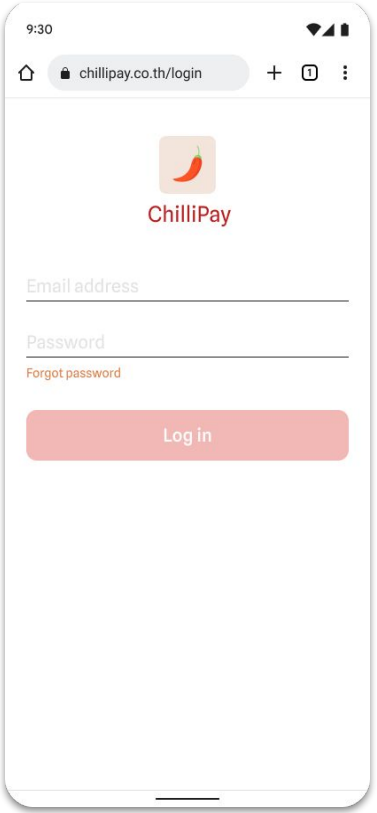


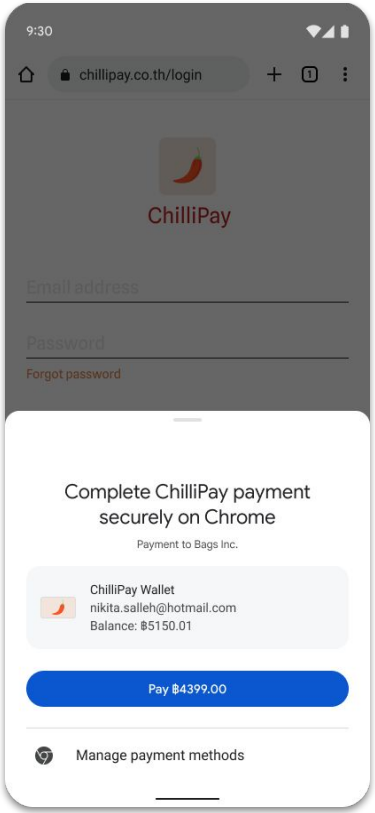


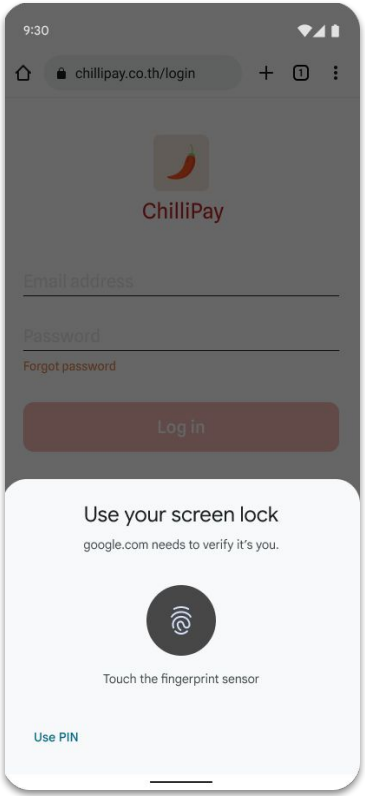


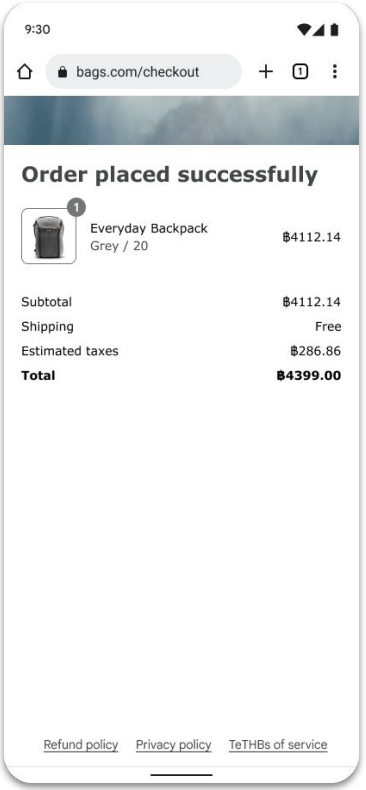
Improved user journey 3 - Web redirect on mobile











Payment link examples (for illustrative purposes)

- UPI
  - **<link rel=”payment” href=”upi://pay?pa=merchant3@icici&pn=test&am=123&cu=INR”>**
- Bitcoin
  - **<link rel=”payment” href=”bitcoin:175tWpb8K1S7NmH4Zx6rewF9WQrcZv245W?amount=20.3&label=Walmart”>**
- PayPal
  - **<link rel=”payment” href=”https://paypal.com?payee-address=175tWpb8K1S7NmH4Zx6rewF9WQrcZv245W&currency=USD&amount=20.3&payee-name=Walmart”>**
- Brazil PIX
  - **<link rel=”payment” href=”pix://pay?code=00020126580014br.gov.bcb.pix0136123e4567-e12b-12d1-a456-426655440000520400005303986580 2BR5913John Doe6008BRASILIA62070503***63041D3D”>**

References

- Explainer: https://github.com/aneeshali/paymentlink/blob/main/docs/explainer.md
- Chrome feature: https://chromestatus.com/feature/5198846820352000