Web Payment APIs

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Working at Vaadin, helping customers build Vaadin UI's and doing Vaadin trainings around Europe.

Always interested in the latest web front-end technologies.

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Paying for things on the web

And how to make that effortless

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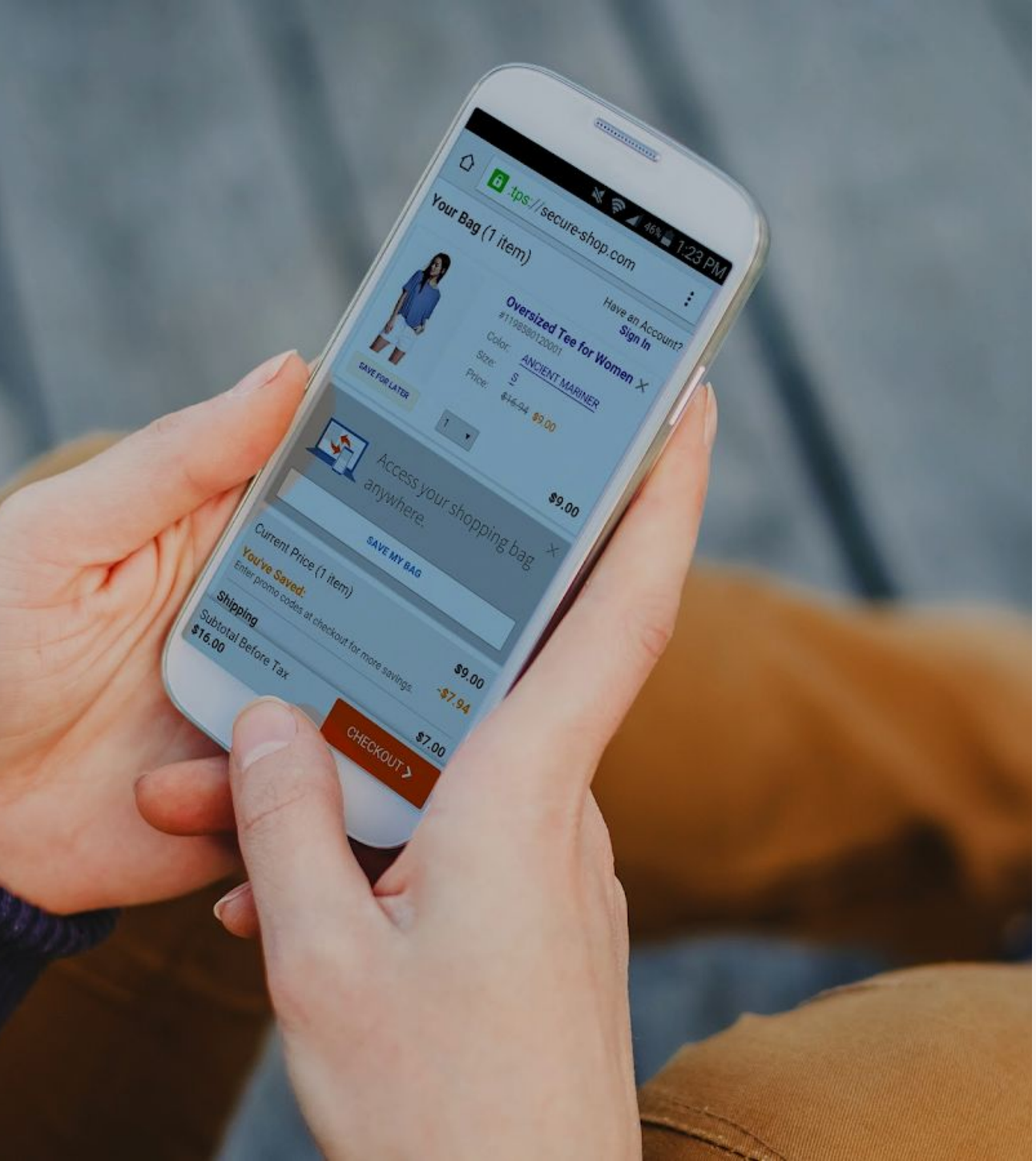

Paying on the web

66% of mobile purchases are on web

Most mobile purchases happen on the web.

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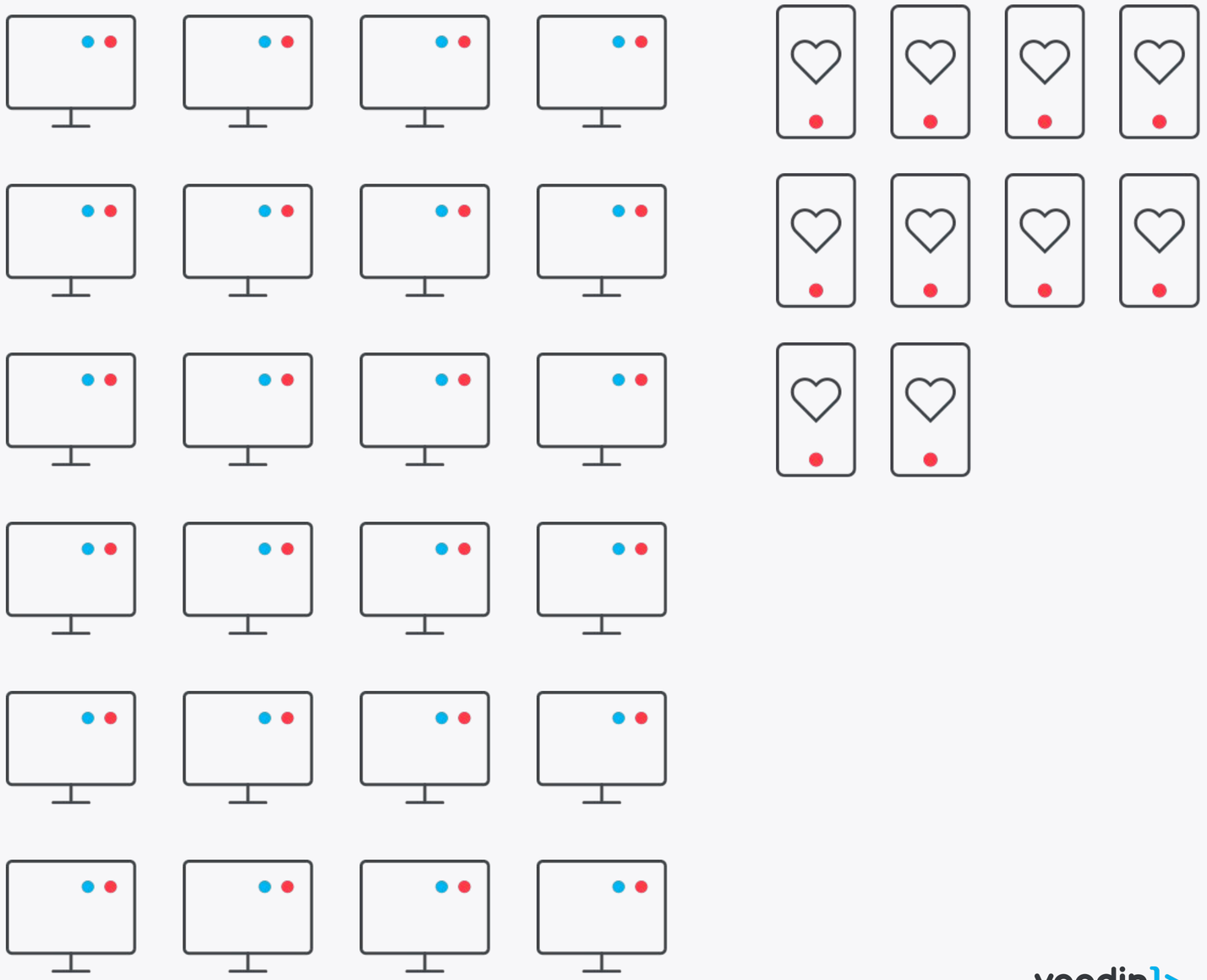
66%

Fewer conversion on mobile websites



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Ever abandoned a purchase because of the checkout form?

Checkout forms on mobile

Manual

Laboursome data entry

Tedious

Type and double check

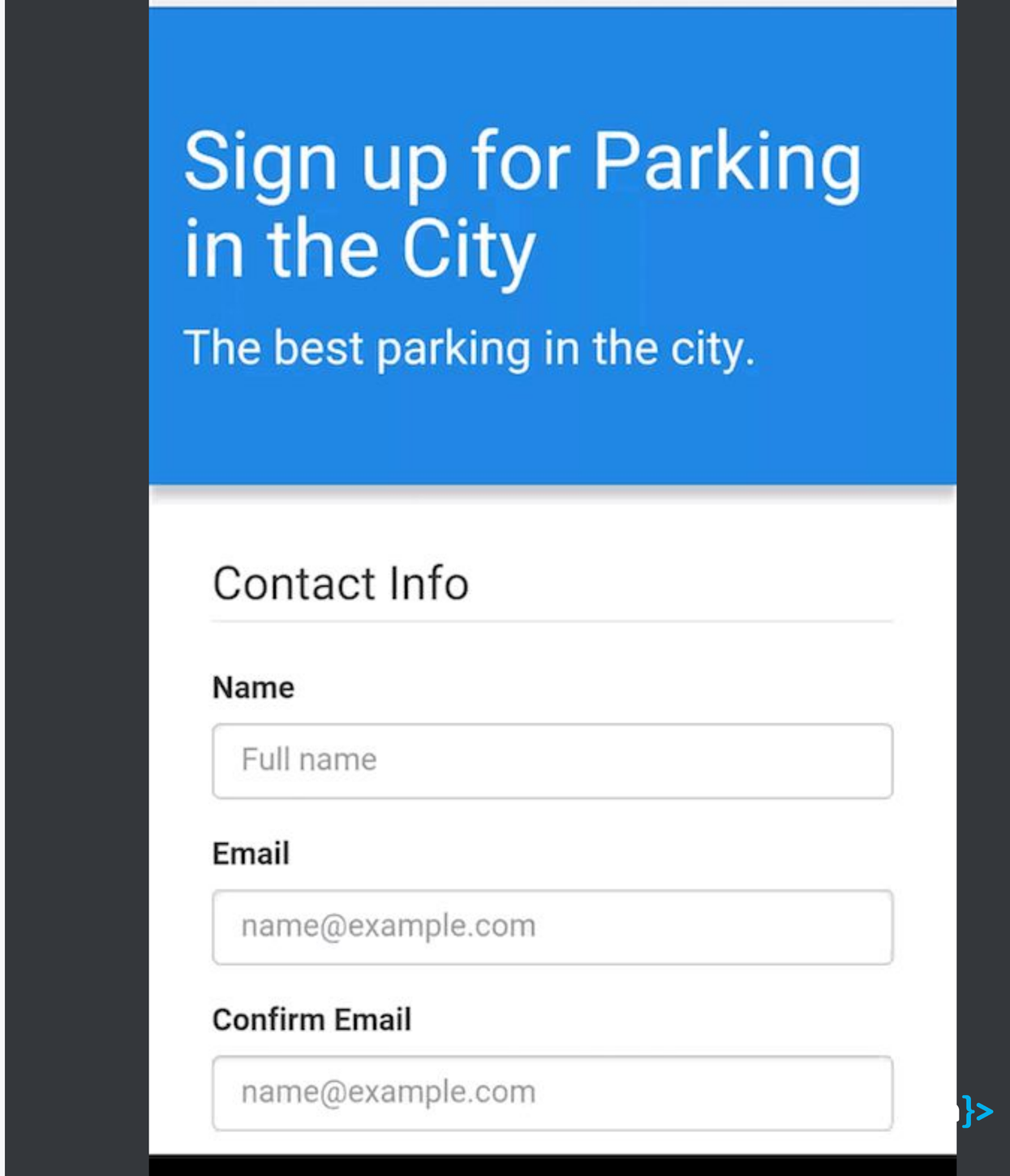
Slow

Page transitions etc.

PRE-TITLE

Autocomplete attributes help

Using Autofill increases conversion by 25%



Autofill in action

Open standard to help with form filling

example.html

```
<label for="frmNameCC">Name on card</label>
<input name="ccname" autocomplete="cc-name">

<label for="frmCCNum">Card Number</label>
<input name="cardnumber" autocomplete="cc-number">

<label for="frmCCCVC">CVC</label>
<input name="cvc" autocomplete="cc-csc">

<label for="frmCCExp">Expiry</label>
<input name="cc-exp" autocomplete="cc-exp">
```

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Checkout forms on mobile

Automatic

Automated data entry

Tedious

Typing and checking

Slow

Page transitions etc.

Payment Request API

Primary goal: Eliminate checkout forms

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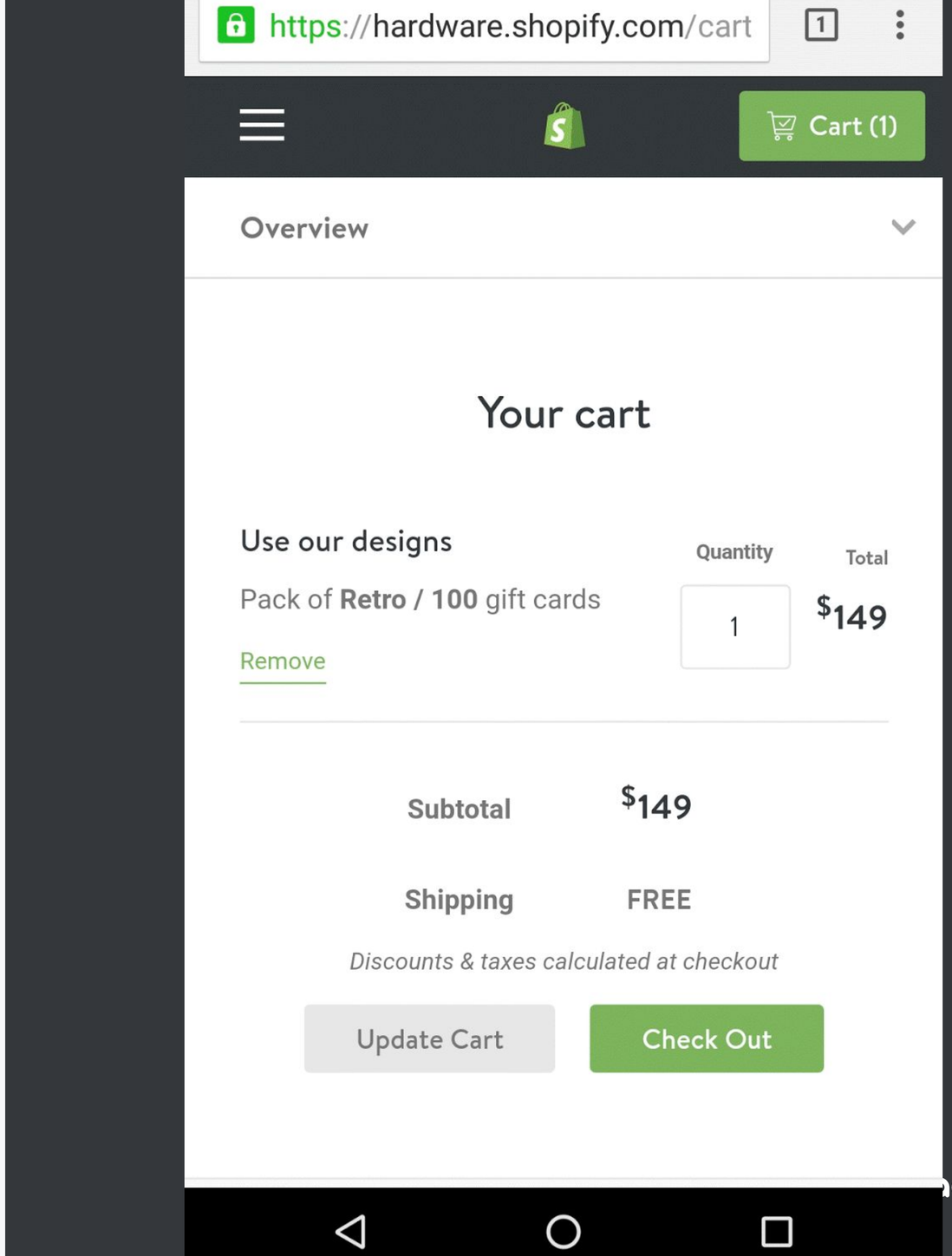
Payment Request API

W3C standard to eliminate checkout forms for users and standardize payment data collection for sites

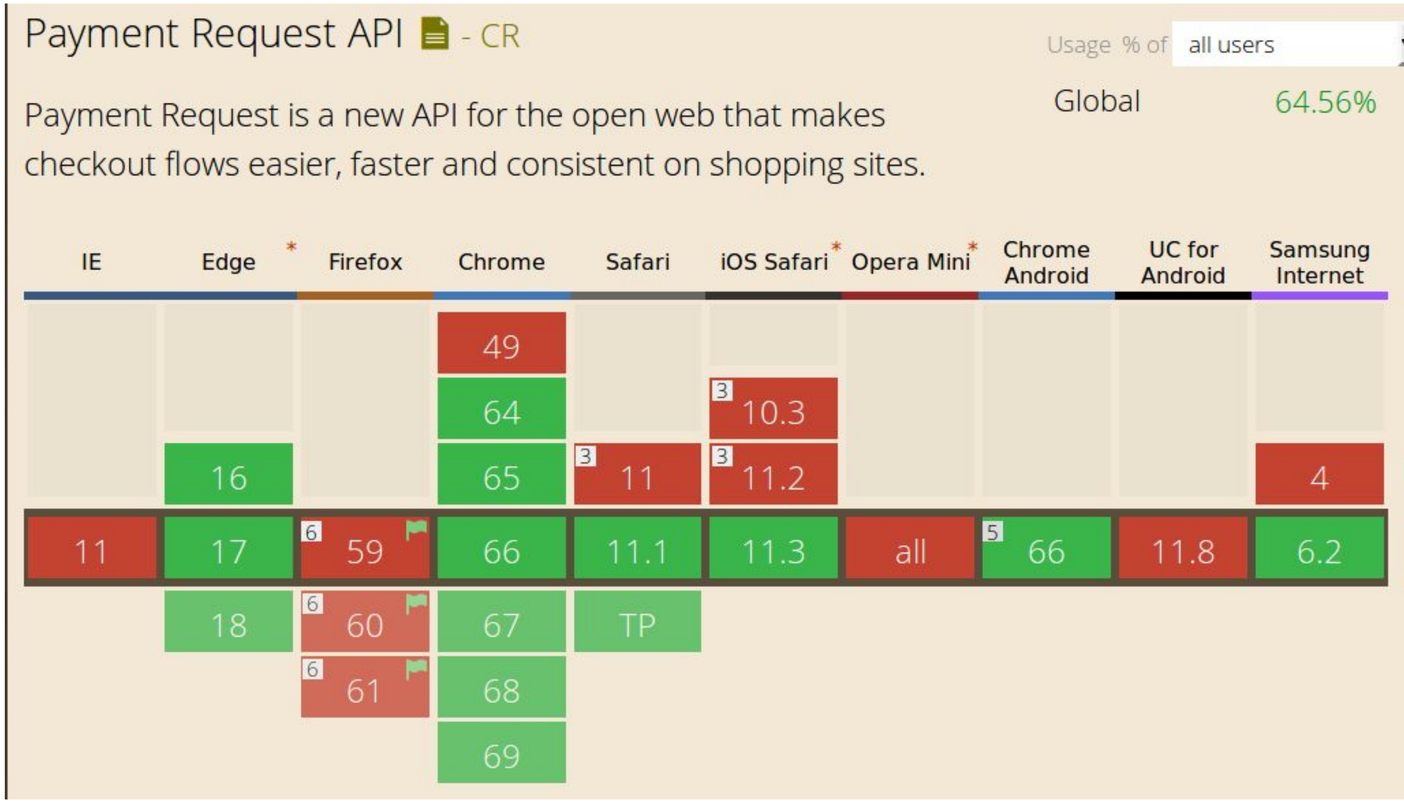


Benefits

- Native and familiar to the user
- Data can be synced between desktop and mobile

Browser support

- Chrome
- Safari
- Edge
- Samsung Internet
- Firefox work-in-progress



Payment Request API

Feature detection is simple

example.js

```
if (window.PaymentRequest) {
  // Use Payment Request API
} else {
  // Fallback to traditional checkout
  window.location.href = '/checkout';
}
```

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Using Payment Request API

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Using Payment Request API

Initialization

Payment Request constructor

- Payment methods
- Purchase details
- Options

example.js

```
new PaymentRequest([{
      supportedMethods: ["basic-card"]
    }], {
      displayItems: [
        {
          label: "Sub-total",
          amount: { currencyCode: "USD",
                    value: "55.00" }, // $55.00
        },
        {
          label: "Sales Tax",
          amount: { currencyCode: "USD",
                    value: "5.00" }, // $5.00
        }
      ],
      total: [{
        label: "Total excluding shipping",
        amount: { currencyCode: "USD",
                  value: "60.00" }, // $60.00
      }]
    })
```

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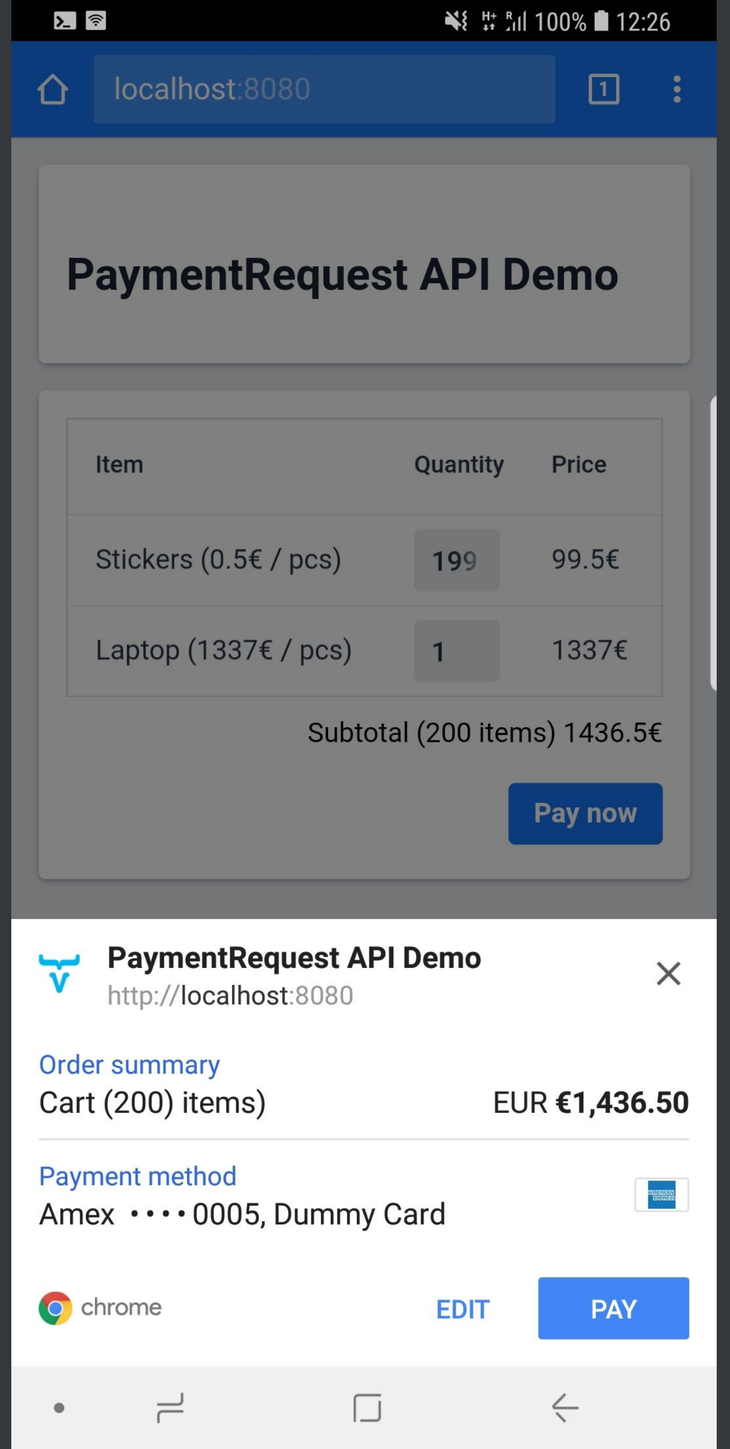
Using Payment Request API

Show UI

```
paymentRequest = new PaymentRequest();
paymentRequest.show()
```



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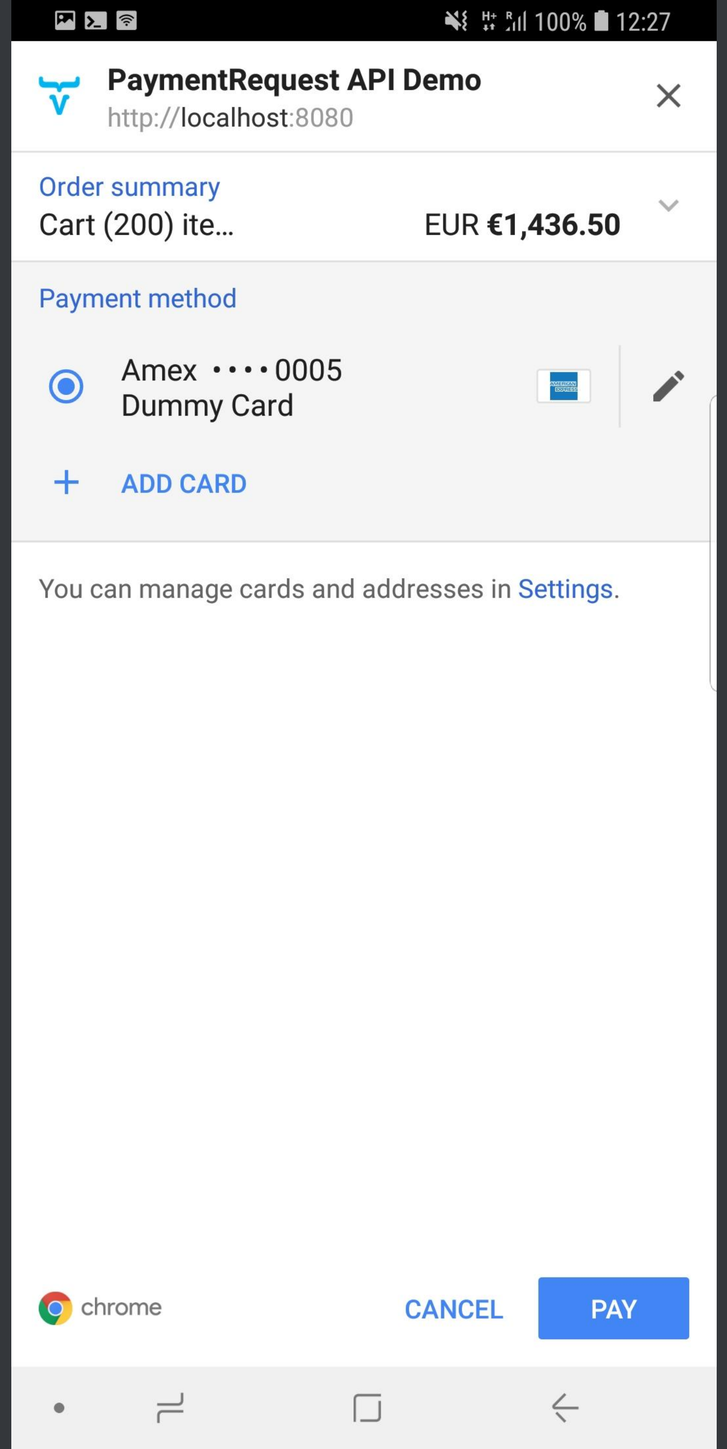
Using Payment Request API

User action

User selects

- Payment method
- Shipping address
- Shipping option



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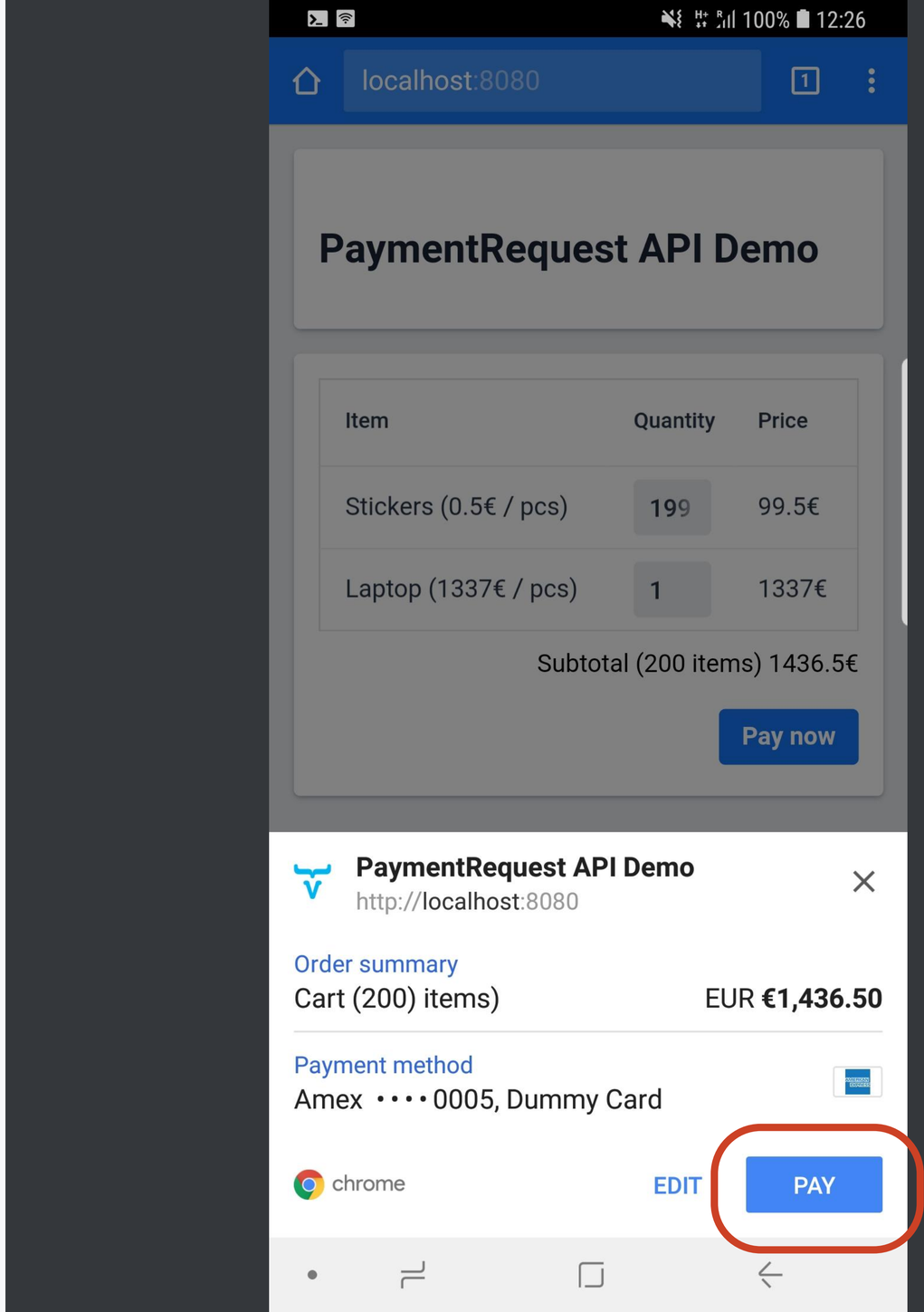
Using Payment Request API

User makes payment

By clicking “PAY”



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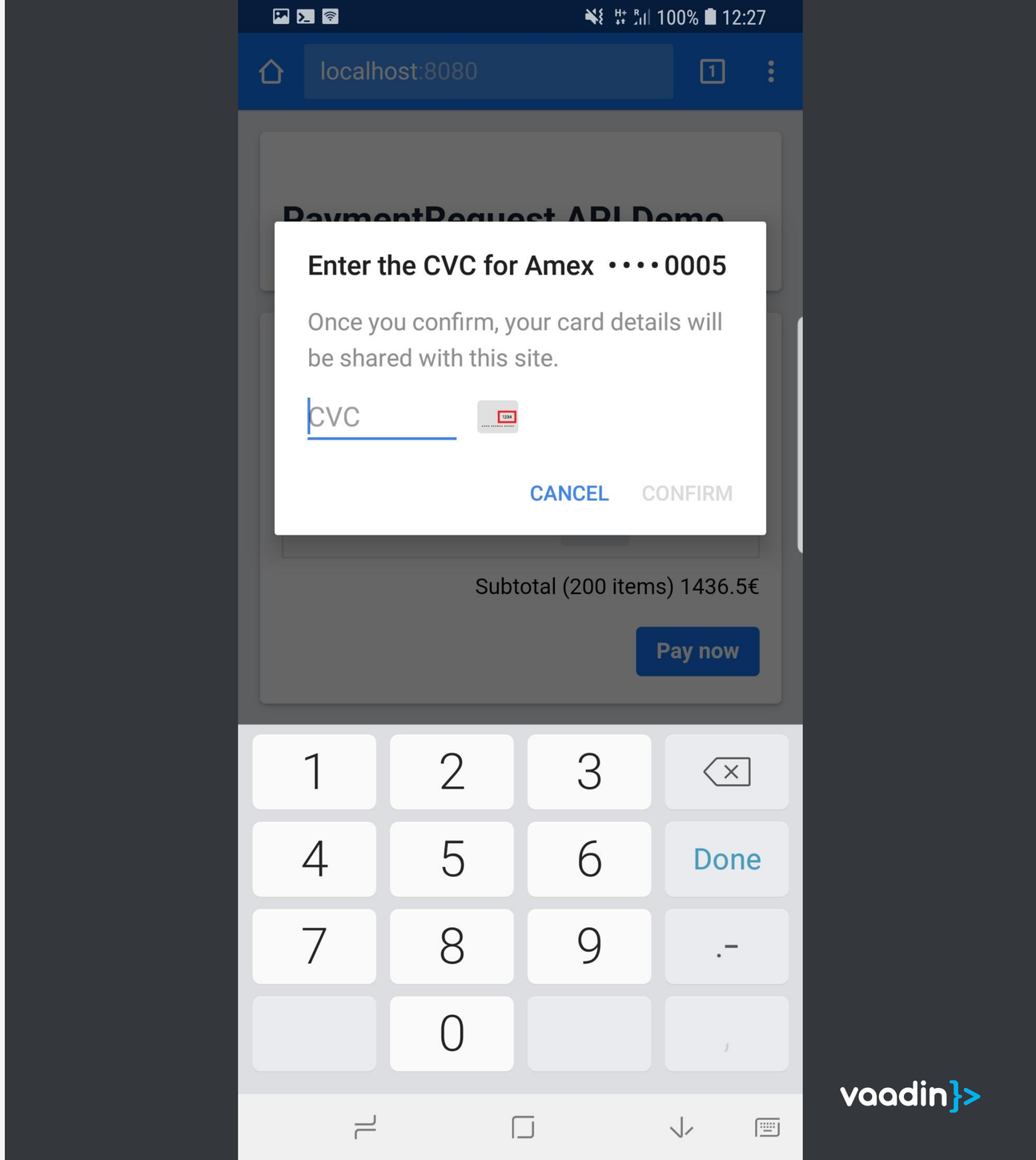
Using Payment Request API

User’s verification

User verifies payment either by

- Entering the card verification number
- In a native app, or
- On third party website



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PaymentRequest API is not a payment processor

It only collects payment, billing and shipping details from the user

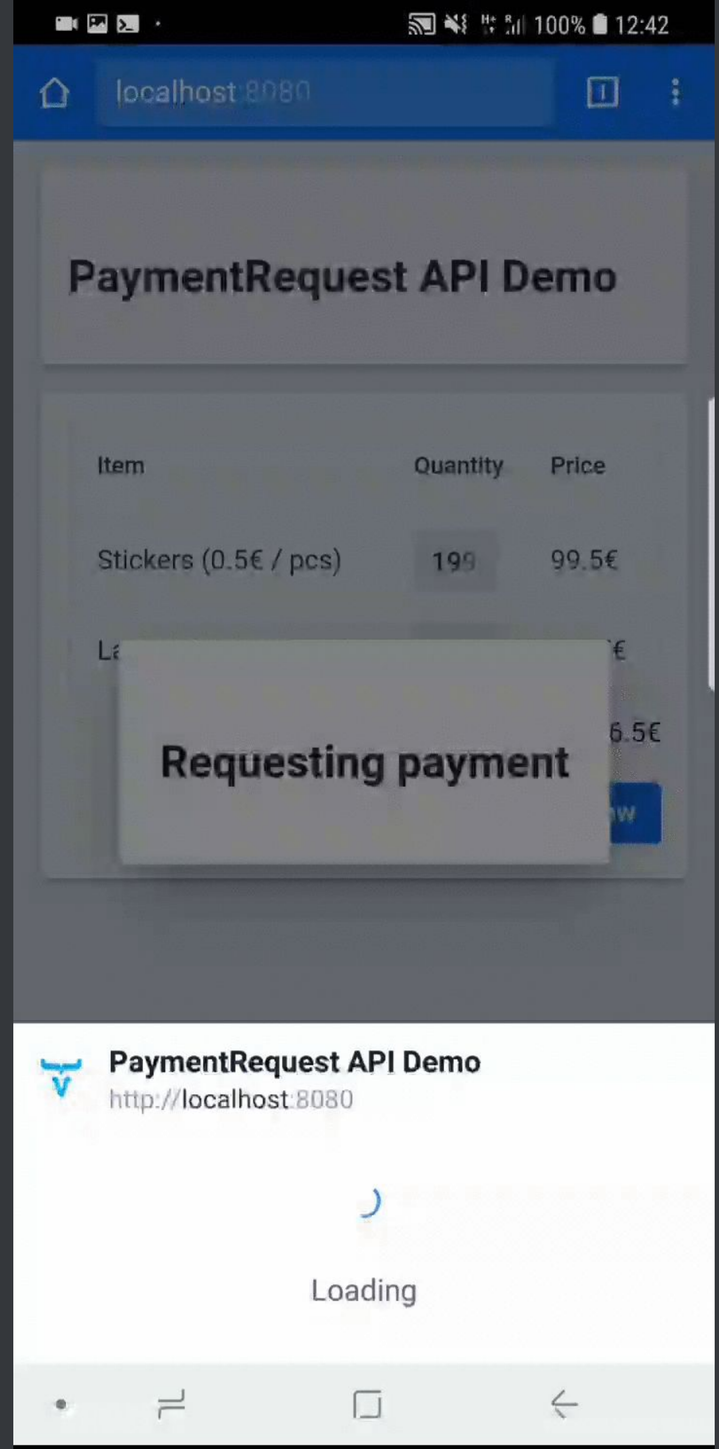
Do your own payment processing on server-side as normal

Using PaymentRequest API

PaymentProcessing

- Your server-side uses a payment gateway like Stripe to collect the payment

```
paymentRequest = new PaymentRequest();
paymentRequest.show()
  .then((response) => {
    // Send response to server
  })
```



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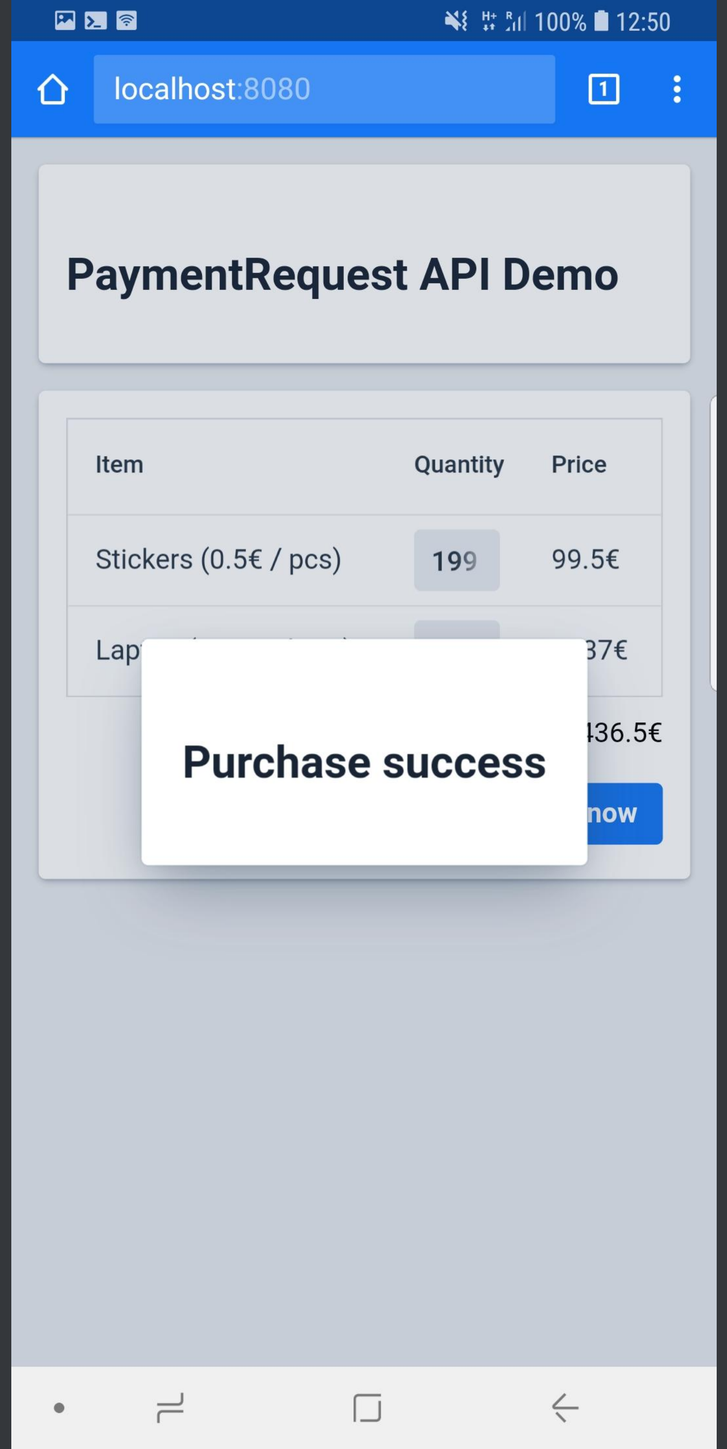
Using PaymentRequest API

All done!

- After your payment gateway returns, close the payment request with `paymentResponse.complete()`

```
paymentRequest = new PaymentRequest();
paymentRequest.show()
  .then((response) => {
    // Send response to server
    return response.complete()
      .then(() => {
        // UI has been closed down
    });
  });
```



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Live demo

WHAT EVERY PRESENTATION NEEDS

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Thank you!

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bit.ly/PaymentRequestDemo

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