

PRESTO Lookup

The Untold Story



Photo: https://www.prestocard.ca/layouts/1033/Images/PRESTOImages/splash_bg_go.jpg?v=2.2

Card in wallet = 😞
Mobile app = 😊

Photo by Paula Lavalle: <https://unsplash.com/photos/StI47JBhSNc>



First Steps

- Get Card(s)
- Ride the train

Ready! Set! App?

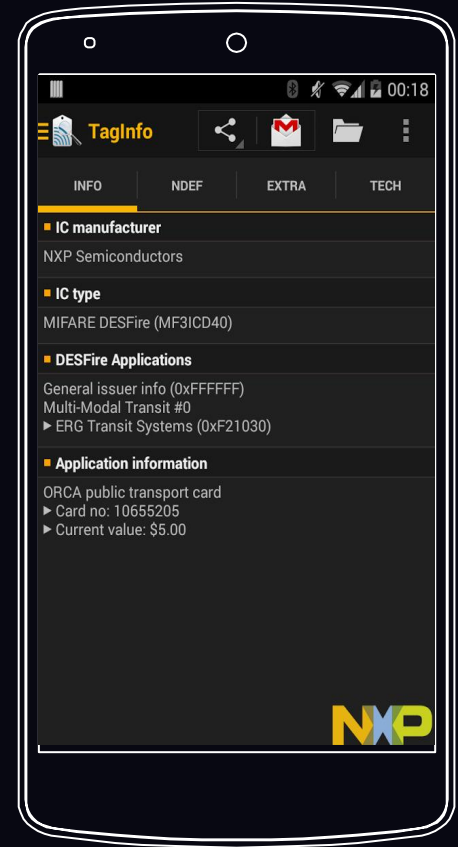


Photo by Luis Llerena: <https://unsplash.com/photos/zEjluKZcD8e>

Animation: https://www.reddit.com/r/reactiongifs/comments/3a8akf/my_cats_reaction_when_i_leave_home/

NFC TagInfo

NXP Semiconductors



<https://play.google.com/store/apps/details?id=com.nxp.taginfoLite&hl=en>

A man in a suit is holding a yellow sign that says "FAIL" in black capital letters. He is looking at the sign with a serious expression. The background is colorful and abstract, featuring large, stylized dollar signs and various geometric shapes in shades of green, yellow, pink, and blue.

Womp Womp

- Card data is encrypted
- Some sort of ID visible

this.id != that.id



Image: https://www.prestocard.ca/en-US/PublishingImages/newcard_updated.jpg



Outline

Tap → Login → Scrape → Display

```
<intent-filter>  
    <action android:name="android.nfc.action.TECH_DISCOVERED"/>  
</intent-filter>  
<meta-data android:name="android.nfc.action.TECH_DISCOVERED"  
            android:resource="@xml/nfc_tech_filter"/>
```

Tap → Login → Scrape → Display

```
<intent-filter>  
    <action android:name="android.nfc.action.TECH_DISCOVERED"/>  
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```

Tap → Login → Scrape → Display

- Determine protocol
- Guess type of card
- Request version, parse unique ID

Tap → Login → Scrape → Display

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PRESTO is actively investigating...
systems such as... mobile device
applications.

← In reply to panos seukunian



PRESTO card @PRESTOcard · 21 Dec 2011

@panosseukunian Hi! The next generation of the PRESTO platform is currently in development, including the **mobile** app! More info in 2012!



← In reply to Kyle



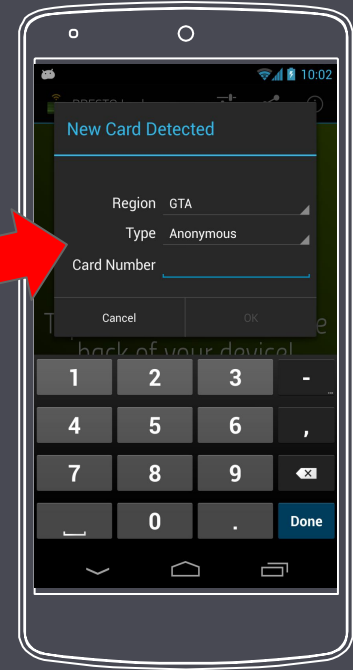
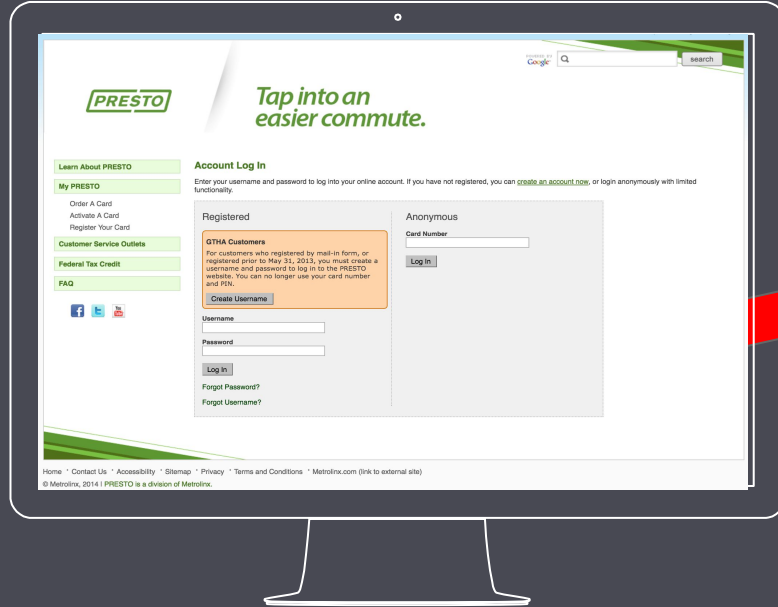
PRESTO card @PRESTOcard · 16 Aug 2011

@kfirmis Hey there! PRESTO's **mobile** solutions are currently under development, along with an enhanced and improved www.prestocard.ca! Thanks!



- Recall: can't get balance from card
- Need to authenticate with website...

Tap → **Login** → Scrape → Display



Tap → **Login** → Scrape → Display

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jsoup is a Java library for working with real-world HTML. It provides a very convenient API for extracting and manipulating data.

Photo: <https://pixabay.com/en/lifesaver-life-buoy-safety-rescue-933560/>



*Tap into an
easier commute.*

POWERED BY
Google



search

Learn About PRESTO

My PRESTO

Order A Card
Activate A Card
Register Your Card

Customer Service Outlets

Federal Tax Credit

FAQ



Account Log In

Enter your username and password to log into your online account. If you have not registered, you can [create an account now](#), or login anonymously with limited functionality.

Registered

GTHA Customers

For customers who registered by mail-in form, or registered prior to May 31, 2013, you must create a username and password to log in to the PRESTO website. You can no longer use your card number and PIN.

Create Username

Username

Password

Log In

[Forgot Password?](#)

[Forgot Username?](#)

Anonymous

Card Number

Log In

- 645 KB
- 49 requests

<dd>

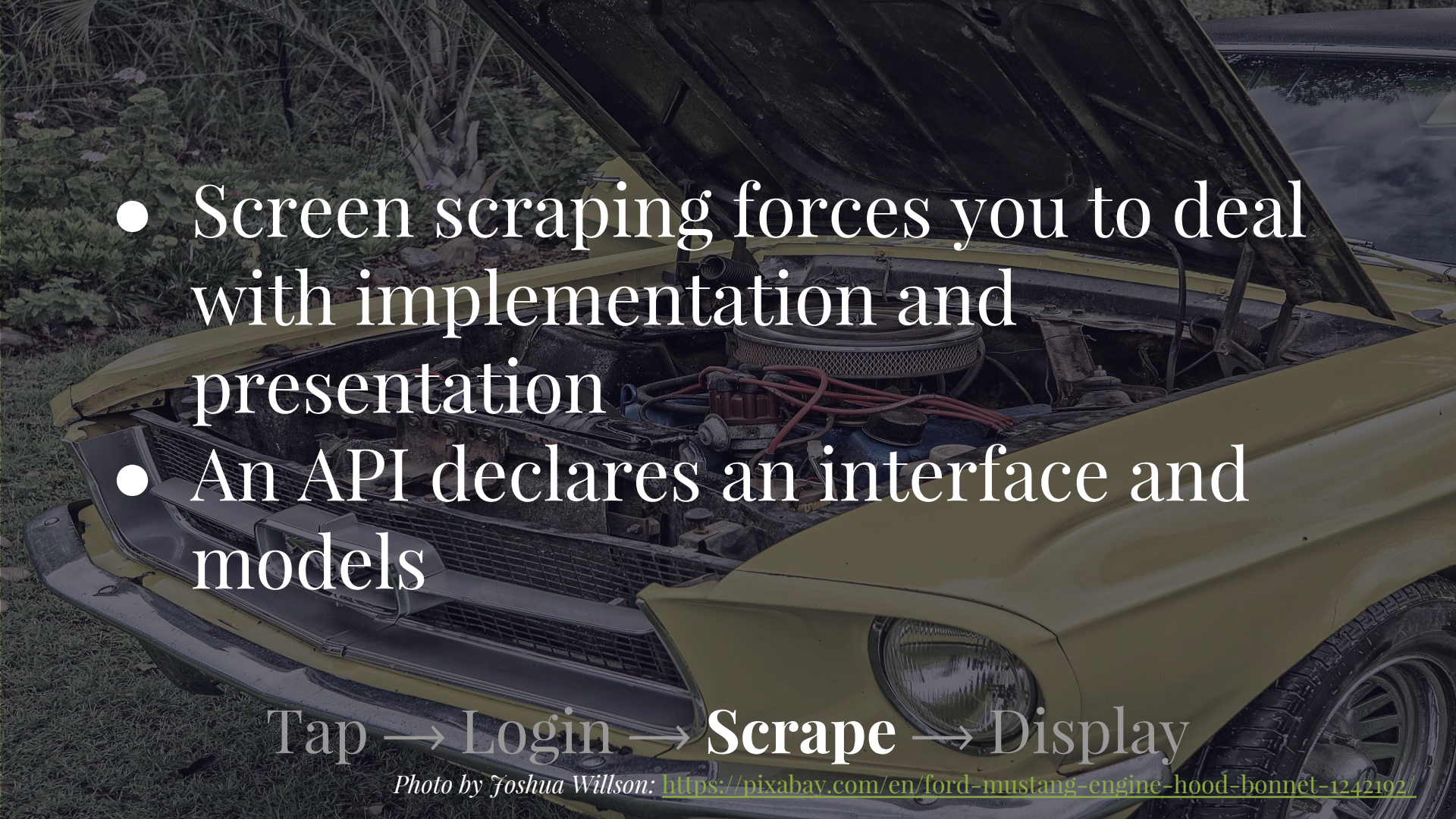
 <input name="ctl00\$SPWebPartManager1
\$AccountLoginWebpartControl\$ctl00\$webpartAnonymousUserLogin\$ctl00
\$textboxAnonymousLogin" type="text" maxlength="17" id="
ctl00_SPWebPartManager1_AccountLoginWebpartControl_ctl00_webpartAn
onymousUserLogin_ctl00_textboxAnonymousLogin" class="form-text" />

</dd>

</dl>

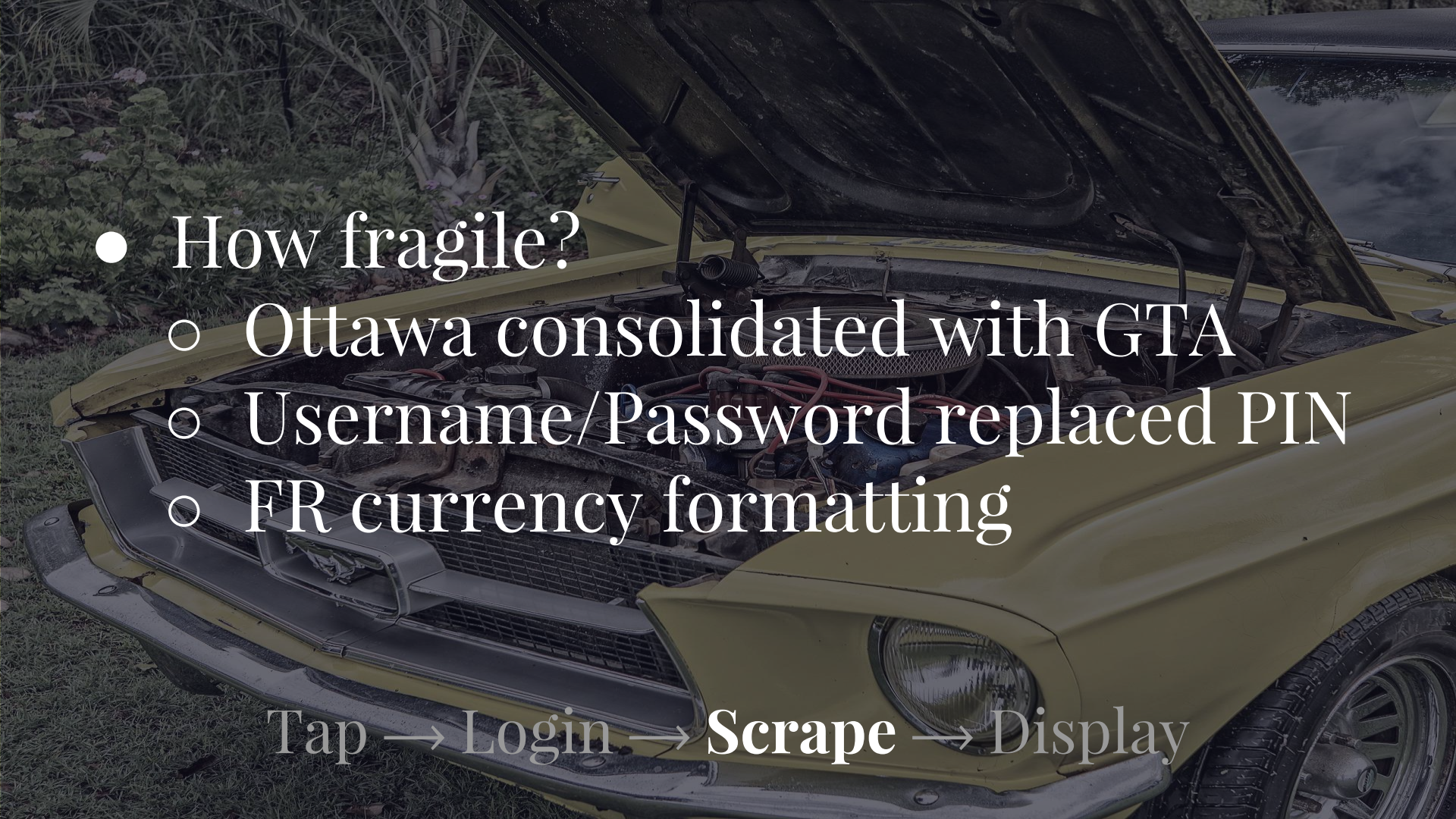
```
private static final String INPUT_REGISTERED_USERNAME =  
"ctl00_SPWebPartManager1_AccountLoginWebpartControl_ctl00_webpartRegistere  
dUserLogin_ctl00_textboxRegisteredLogin";  
FormElement usernameEle = form.get(INPUT_REGISTERED_USERNAME);  
FormElement passwordEle = form.get(INPUT_REGISTERED_PASSWORD);  
usernameEle.set(mCard.username);  
passwordEle.set(mCard.password);  
button = form.getSubmitButton(byId(BUTTON_REGISTERED_SUBMIT));  
HtmlDocument response = (HtmlDocument)form.submit(button);
```

Tap → Login → **Scrape** → Display

- 
- A photograph of a yellow Ford Mustang with its hood open, revealing the engine. The car is parked on grass with some foliage in the background. The image is used as a background for a presentation slide.
- Screen scraping forces you to deal with implementation and presentation
 - An API declares an interface and models

Tap → Login → **Scrape** → Display

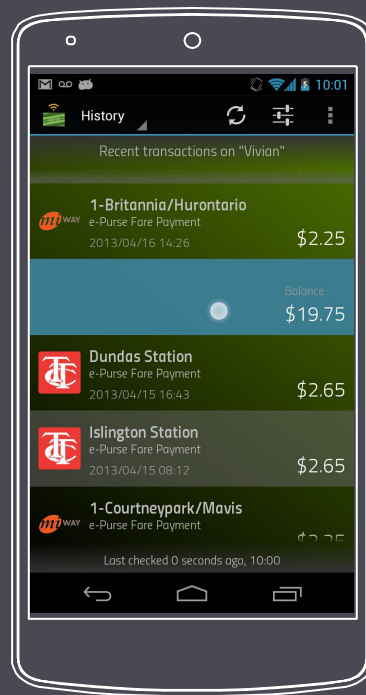
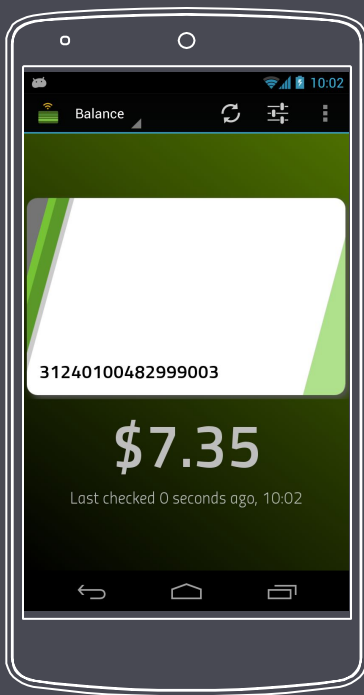
Photo by Joshua Willson: <https://pixabay.com/en/ford-mustang-engine-hood-bonnet-1242192/>

- 
- How fragile?
 - Ottawa consolidated with GTA
 - Username/Password replaced PIN
 - FR currency formatting

Tap → Login → **Scrape** → Display

Prototype:
Dec 2012

Launch:
Jun 2013



Tap → Login → Scrape → **Display**

← In reply to Jayne Peres



PRESTO card @PRESTOcard · 16 Dec 2013

@JayneSmiles We don't currently have a **mobile app** nor are affiliated with or endorse any existing independent mobile apps.



PRESTO card @PRESTOcard · 4 Jul 2013

A great number of our customers are asking whether we have a [#mobile](#) app – at the moment we don't. Apps currently in market are unsupported.



1



← In reply to Andy



PRESTO card @PRESTOcard · 2 Jul 2013

.@CanadianFanboy We're working on a [#mobile](#) app, keep your eyes peeled ;)



1



2

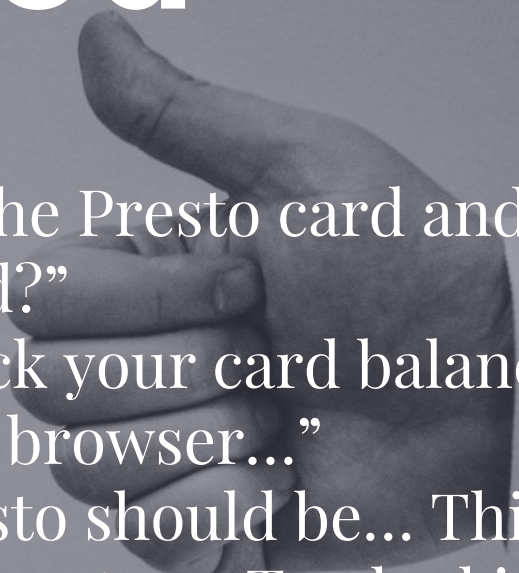


Play Store



- After 3 years, average rating of 3.7
- 215 reviews
- 8000 MAU

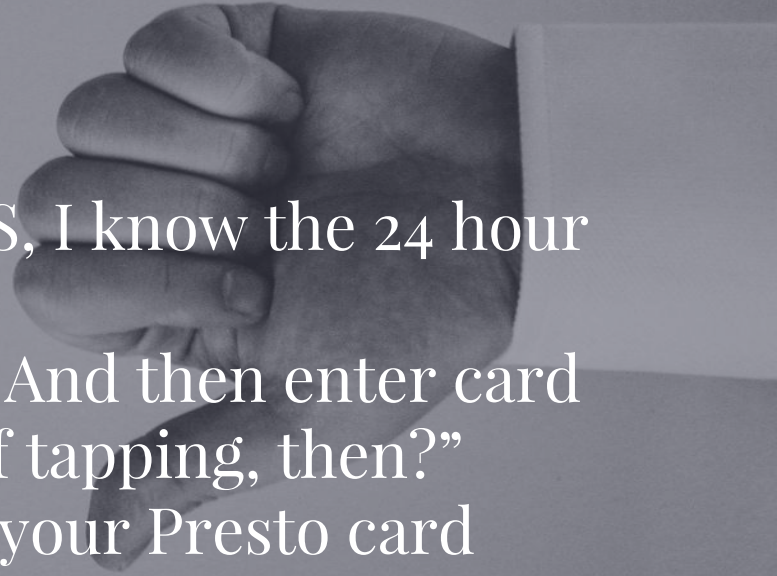
The Good

A grayscale photograph of a hand giving a thumbs up gesture, positioned on the right side of the slide, partially overlapping the text.

- “When will we be able to ditch the Presto card and just use our NFC phones instead?”
- “The app makes it easier to check your card balance and history. Faster than using a browser...”
- “Just a tiny glimpse of what presto should be... This app brings Presto into the 21ST century. Too bad it's not official.”

The Bad

- “PLEASE FIX THESE PROBLEMS, I know the 24 hour delay part is hard to fix...”
- “Tap card on back of device... ... And then enter card number?!! So what's the point of tapping, then?”
- “One trick pony Lets you check your Presto card balance. Nothing else ...”



The Future

- Not much incentive to update the app
- Android Pay demoed at I/O for London Underground
- We can only hope

Photo by Forrest Cavale: https://unsplash.com/photos/29SqSdfvN_A



Thanks



[@gnufmuffin](#)



efung@acm.org



[efung](#)

**I topped it up
yesterday.**

Still no credit on
my Presto card.

*This public service message
brought to you by @PrestoPain.
Because Presto should be easier.*

Share the pain at www.twitter.com/prestopain.

Credits

“Katharine” presentation template by [SlidesCarnival](#)