Pocket Litter
A Peek Inside Your Apple Wallet

Sarah Edwards

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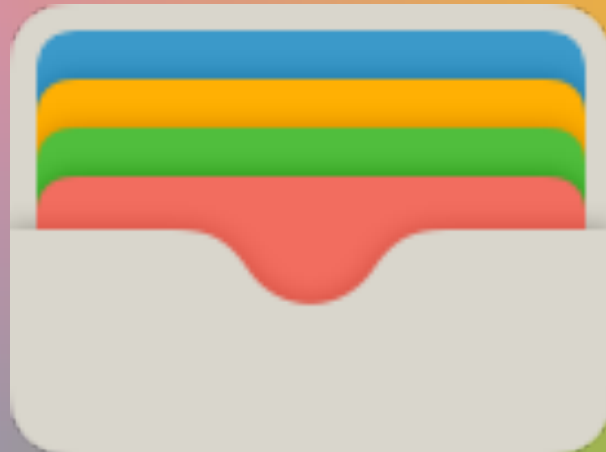
Apple Wallet vs. Apple Pay vs. Apple Card vs. Apple Cash

Apple Wallet – The App

- Available on iOS, iPadOS, watchOS, macOS
- May also include tickets, transit, boarding passes, keys, IDs, etc.

Apple Pay – The Technology

- Credit Cards available in Apple Wallet - Mastercard, Visa, etc.

Apple Card – Apple's Offering of a Physical (Titanium) & Digital Credit Card

- Mastercard from Apple
- ...but really Goldman Sachs

Apple Cash – Digital Cash
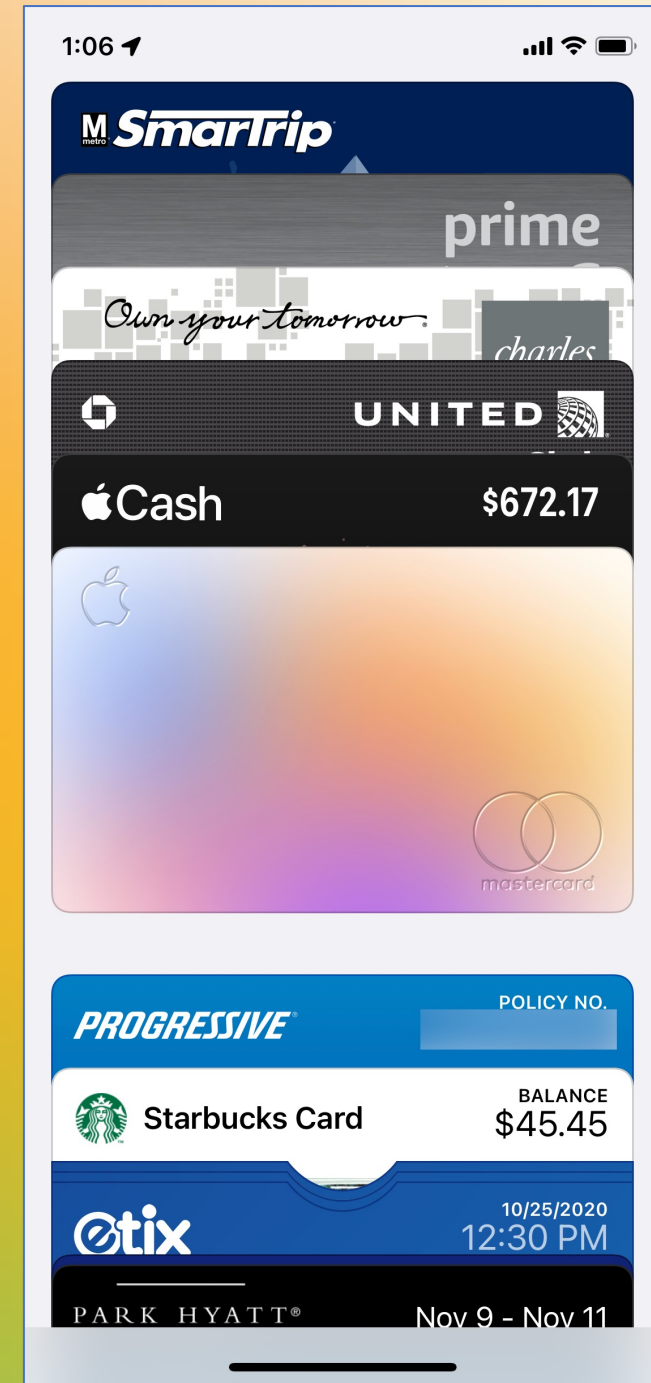
- Think debit card-ish

Apple Wallet iOS App

Up Top:

Credit Cards & Transit

Down Below:

Tickets, Memberships, & Loyalty

iOS:

/private/var/mobile/Library/Passes/

(iCloud) /private/var/mobile/Library/Mobile Documents/com~apple~shoebox/UbiquitousCards/

macOS:

~/Library/Passes/

(iCloud) ~/Library/Mobile Documents/com~apple~shoebox/UbiquitousCards/

Passes (ie: Cards)

Pass Types

- Travel - Airline, Train, Hotels
- Loyalty/Rewards
- Entertainment Tickets
  - Movies, Sports, Music, etc.
- Car Keys
- COVID Vaccinations
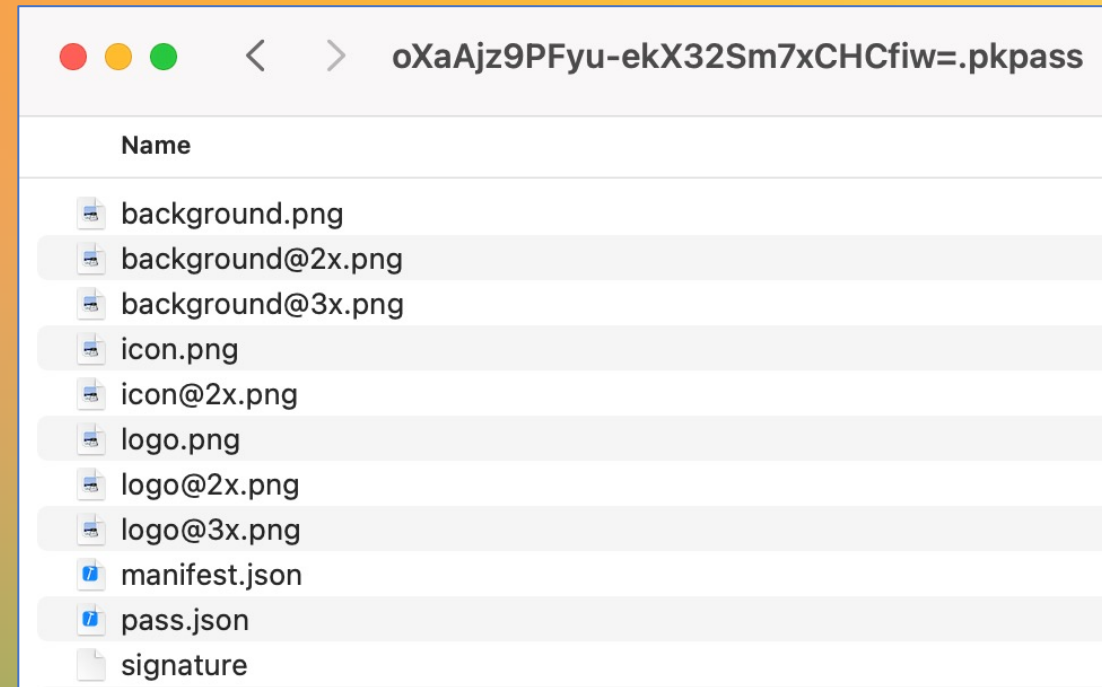- Identification – Student, State, etc.

iCloud Synced

- Tickets & Passes (not Credit Cards & Transit)

Locations:

- macOS: ~/Library/Passes/Cards
- iOS: /private/var/mobile/Library/Passes/Cards
- iCloud Synced (iOS/macOS): [/private/var/mobile]/Library/Mobile Documents/com~apple~shoebox/ UbiquitousCards/

```
oompa@MBP-M1 UbiquitousCards % pwd
/Users/oompa/Library/Mobile Documents/com~apple~shoebox/UbiquitousCards
oompa@MBP-M1 UbiquitousCards % ls
+1Rn-3K3v74Xt5Ppgl0waCmkLks=.pkpass      Ci7rJh2vfLnRzDy7tUCW0BmnLmI=.pkpass
+4gr0SL6npZb9tREoOoCH+YtCFw=.pkpass      CmFZBAr3TnDfyzcRZWLOlojy5KY=.pkpass
-ANnLUlilP3Yw0WPkIQMwk68PYY=.pkpass      D367qXxa7P-186LjV7fk-G+Rb70=.pkpass
-VC-SD6VkbwHWw7dKxcRrfpuHt0=.pkpass      DM5QE0aXuhCR+jiXepoNZKjAX0Q=.pkpass
-eXyCCyTdYFHrCjiUmMKF1KMg+M=.pkpass      DN9TKDgdbaKwM41Lt2OAs4s-eiM=.pkpass
-gwRp+FGya1SiWxVFMLW5GOkG3o=.pkpass      DqmGFKN204JvBCsuA+EUUoX8Bog=.pkpass
-kETovDd+SkLdmGE25iwyFwBx3o=.pkpass      DzC7ZCTKhP0Ce2oopa3jSEHNlj0=.pkpass
0-cM9ac3eFNA9iCZ0mbkGqaN1OE=.pkpass      E0Ni9479wYY-TLSDmkFwlBxKFhI=.pkpass
07DvKQIpN4QMgdtfi5miHNJWHmQ=.pkpass      E3m9EIGmK60xP7DajhRSDWLT3z4=.pkpass
0DygHCEp7e3HrioAxwgeo0tava4=.pkpass      EwAzal13qiCTO33rW-ecLu4iyiw=.pkpass
```

oXaAjz9PFyu-ekX32Sm7xCHCfiw=.pkpass

Name

- background.png
- background@2x.png
- background@3x.png
- icon.png
- icon@2x.png
- logo.png
- logo@2x.png
- logo@3x.png
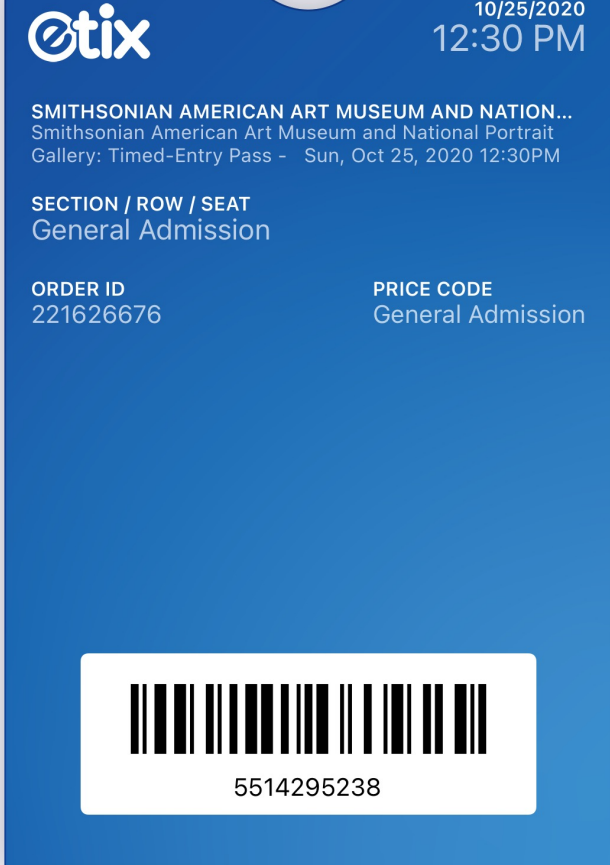- manifest.json
- pass.json
- signature

Passes – PKPass Package Format

File browser — `oXaAjz9PFyu-ekX32Sm7xCHCfiw=.pkpass`

Name:
- background.png
- background@2x.png
- background@3x.png
- icon.png
- icon@2x.png
- logo.png
- logo@2x.png
- logo@3x.png
- manifest.json
- pass.json
- signature

```
oompa@MBP-M1 oXaAjz9PFyu-ekX32Sm7xCHCfiw=.pkpass % jq < pass.json
{
  "formatVersion": 1,
  "serialNumber": "5514295238",
  "passTypeIdentifier": "pass.com.etix.ticket",
  "description": "Etix Ticket",
  "teamIdentifier": "LSCA6RKZ57",
  "organizationName": "Etix",
  "foregroundColor": "rgb(255,255,255)",
  "labelColor": "rgb(255,255,255)",
  "barcodes": [
    {
      "format": "PKBarcodeFormatCode128",
      "altText": "5514295238",
      "message": "5514295238",
      "messageEncoding": "UTF-8"
    }
  ],
  "eventTicket": {
    "headerFields": [
      {
        "key": "date",
        "label": "10/25/2020",
        "value": "12:30 PM"
      }
    ],
    "primaryFields": [
      {
        "key": "performance and venue name",
        "label": "Smithsonian American Art Museum and Nat...
        "value": "Smithsonian American Art Museum and Nat...
Pass -  Sun, Oct 25, 2020 12:30PM",
        "textAlignment": "PKTextAlignmentLeft"
      }
    ],
    "secondaryFields": [
      {
        "key": "seat",
        "label": "Section / Row / Seat",
        "value": "General Admission",
        "textAlignment": "PKTextAlignmentLeft"
      }
    ],
    "auxiliaryFields": [
      {
        "key": "orderID",
        "label": "Order ID",
        "value": 221626676,
        "textAlignment": "PKTextAlignmentNatural"
      },
      {
        "key": "price code",
        "label": "Price Code",
        "value": "General Admission",
        "textAlignment": "PKTextAlignmentNatural"
      }
    ],
    "backFields": [
      {
        "key": "purchaser name",
        "label": "TICKET PURCHASER",
        "value": "Sarah Edwards"
      },
      {
        "key": "header",
        "label": "EVENT INFORMATION",
        "value": "Smithsonian\nAmerican Art Museum and\nNational Portrait Gallery\n Su
25, 2020 12:30PM\nEnter at 8th and G Streets\nnpg.si.edu/visit/namericanart.si.edu/vi...
      },
      {
        "key": "venue name",
        "label": "VENUE NAME",
        "value": "Smithsonian American Art Museum and National Portrait Gallery"
      },
      {
        "key": "venue address",
        "label": "VENUE ADDRESS",
        "value": "8th And G Street Northwest\nWashington, DC, 20024, USA"
      },
      {
        "key": "venue phone",
        "label": "VENUE PHONE",
        "value": "202-6335358"
      },
      {
        "key": "venue website",
        "label": "VENUE WEBSITE",
        "value": "https://www.si.edu/visit/passes"
      },
      {
        "key": "terms",
        "label": "TERMS",
        "value": "https://www.etix.com/ticket/online3/purchase-policy.jsp"
      }
    ]
  }
}
```

Phone screenshot (Etix ticket):

1:09

Done

10/25/2020
12:30 PM

SMITHSONIAN AMERICAN ART MUSEUM AND NATION...
Smithsonian American Art Museum and National Portrait
Gallery: Timed-Entry Pass - Sun, Oct 25, 2020 12:30PM

SECTION / ROW / SEAT
General Admission

ORDER ID
221626676

PRICE CODE
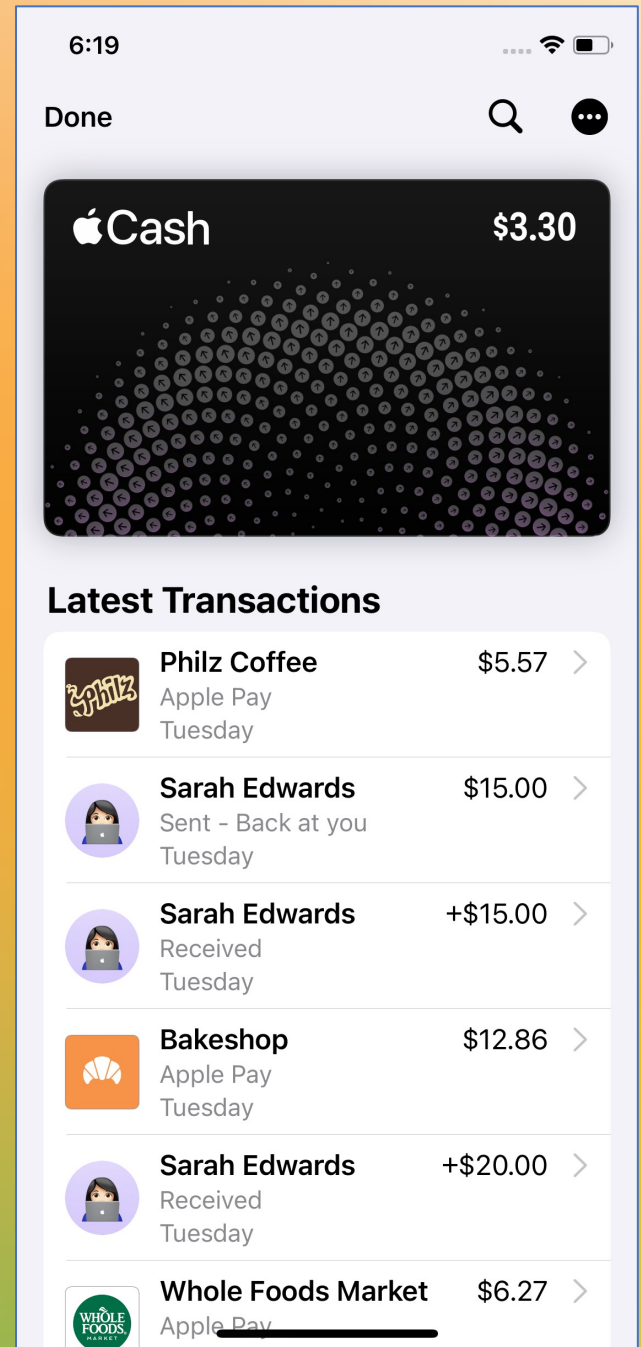General Admission

5514295238

Transaction Types

- Apple Cash Peer Payments
- Credit Card Transactions
- Apple Card Transactions
- Transit Transactions
- Primary database passes23.sqlite

passes23.sqlite DB Schema
"Security through ~~obscurity~~ fruit?" 🍓🥑🍍🍌🍎🍑

Name
∨ Tables (166)
> account_endpoint_backoff
> account_fetch_periods
> account_pending_family_member
> acorn
> akebi
> almonds
> apples
> applet_state_dirty
> associated_app_identifier
> associated_pass_type_identifier
> associated_web_domain
> atemoya
> avocados
> balance_reminder
> bananas
> barcode_fetch
> beacon
> blackberries
> blueberries
> boysenberry
> breadfruit

> cantaloupes
> carambola
> change_history_event
> chestnut
> chikoo
> clementines
> cloud_store_database
> cloud_store_token
> cloud_store_zone
> cloud_store_zone_share_participant
> coconuts
> commute_plan_reminder
> credit_account_merge_summary
> credit_account_merge_summary_account_d...
> cucamelon
> cucumbers
> currant
> discovery_item
> discovery_notification
> durian
> e_mei_shan
> elderberry
> felica_transit_applet_state
> fig

> gojiberry
> gooseberry
> grapes
> guavas
> honey
> huckleberry
> humphreys
> ice_cream_banana
> index_fetched_metadata
> index_item
> index_metadata
> jackfruits
> jostaberry
> keith
> kiwi
> location
> location_index
> location_index_node
> location_index_parent
> location_index_rowid
> location_source
> lucuma
> lychees

> mangos
> maps_merchant
> marionberry
> missing_remote_assets
> mulberry
> nectarines
> nfc
> notification_service
> oranges
> palisades
> papaya
> pass
> pass_annotations
> pass_group
> pass_location_source
> pass_notification_service
> pass_tile_accessory
> pass_tile_accessory_button
> pass_tile_accessory_spinner
> pass_tile_descriptor
> pass_tile_descriptor_state
> pass_tile_image
> pass_tile_metadata
> pass_tile_metadata_rke
> pass_tile_state
> pass_tile_state_default
> pass_tile_state_metadata
> pass_tile_state_metadata_rke
> pass_type

passes23.sqlite Database Schema – cont…

passionfruits	peer_payment_account
payment_application	peer_payment_account_additional_push_top...
payment_application_barcode_service_meta...	peer_payment_account_feature_descriptor
payment_application_merchant_support	peer_payment_account_invitation
payment_automatic_selection_criterion	peer_payment_associated_account_removal...
payment_automatic_selection_criterion_tci	peer_payment_preferences
payment_balance	peer_payment_preferences_notification
payment_express_mode	peer_payment_preferences_restriction
payment_message	persimmon
payment_setup_product_configurations	pineapples
payment_transaction	pineberry
payment_transaction_amount	pitayas
payment_transaction_amount_modifiers	plantains
payment_transaction_archive	plum
payment_transaction_archive_location	prickly_pear
payment_transaction_authentication	prune
payment_transaction_awards	rainier
payment_transaction_fee	raisin
payment_transaction_tag	rambutans
payment_transit_network_identifier	raspberries
peaches	rincon
peanut	rule
peanuts	salmonberry
pears	shasta
	squash
	starfruits
	strawberries

tamarillo
tap_to_radar_prompt
tile_descriptor_tile_state_collection
tomatoes
transaction_receipt
transaction_source
transit_applet_state
transit_applet_state_balance
value_added_merchant
value_added_service_transaction
water
watermelons
web_service
whitney
williamson
world_region
world_region_localized_content
world_region_mapping

plantains
- pid
- a
- b
- c
- d
- e
- g
- h
- i
- l
- m
- n
- o
- last_processed_date

Cards & Passes
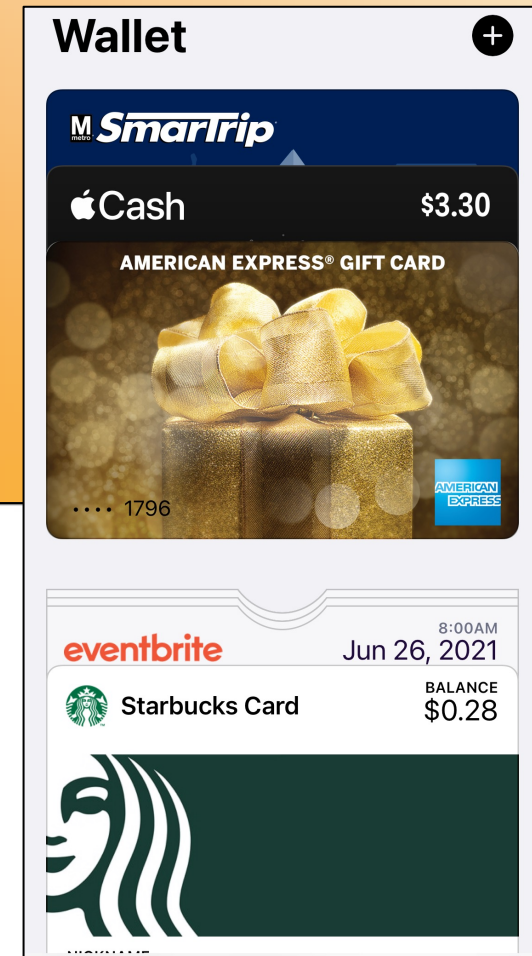
```sql
1  SELECT
2      DATETIME(PASS.INGESTED_DATE+978307200,'UNIXEPOCH') AS 'INGESTED DATE',
3      DATETIME(PASS.MODIFIED_DATE+978307200,'UNIXEPOCH') AS 'MODIFIED DATE',
4      CASE PASS.PASS_FLAVOR
5          WHEN 0 THEN 'PASS'
6          WHEN 1 THEN 'CARD'
7      END 'TYPE',
8      PASS.UNIQUE_ID AS 'UNIQUE ID',PASS.ORGANIZATION_NAME AS 'ORGANIZATION NAME',
9      PASS_GROUP.PASS_TYPE_ID AS 'PASS TYPE',PASS_GROUP.GROUP_ORDER AS 'GROUP ORDER',
10     PASS.PRIMARY_ACCOUNT_SUFFIX AS 'ACCOUNT SUFFIX',
11     PASS.ISSUER_COUNTRY_CODE AS 'ISSUER COUNTRY CODE'
12 FROM PASS
13 LEFT JOIN LOCATION_SOURCE ON LOCATION_SOURCE.URL LIKE '%'||PASS.UNIQUE_ID||'%'
14 LEFT JOIN LOCATION ON LOCATION.LOCATION_SOURCE_PID == LOCATION_SOURCE.PID
15 LEFT JOIN PASS_GROUP ON PASS.GROUP_PID == PASS_GROUP.PID
16 ORDER BY "GROUP ORDER"
```

	INGESTED DATE	MODIFIED DATE	TYPE	UNIQUE ID	ORGANIZATION NAME	PASS TYPE	GROUP ORDER	ACCOUNT SUFFIX	ISSUER COUNTRY CODE
1	2021-05-13 16:45:55	2021-05-13 16:46:03	CARD	GvYGdnt6ZtW8WmyIjVGxuW5su28=	Washington Metropolitan Area Transit Authority	paymentpass.com.apple	0	NULL	US
2	2021-05-13 14:28:09	2021-05-13 14:40:38	CARD	ja1bSpqfUKWnzR1s2ntMOnjIGhg=	Apple	paymentpass.com.apple	1	NULL	US
3	2021-05-13 16:06:25	2021-05-13 16:40:33	CARD	hhgRM1y6i4QGHuyd9MRut2RHdCY=	American Express	paymentpass.com.apple	2	1796	US
4	2021-05-13 22:52:42	2021-05-13 22:52:42	PASS	TPQ7KWAnjLWVBQmxVcxQxS5IHlg=	Sunday Jazz Brunch	pass.eventbrite.ticket	3	NULL	NULL
5	2021-05-13 22:54:03	2021-05-13 22:54:03	PASS	mbG2YuZ4isplogW7V8fDlMOjRco=	SUNDAY BRUNCH & DAY PARTY	pass.eventbrite.ticket	3	NULL	NULL
6	2021-05-13 22:56:21	2021-05-13 22:56:21	PASS	-fxguUWkDyf5Xmj2oBogsySIjnY=	College Park Farmer's Market @ Paint Branch Parkway	pass.eventbrite.ticket	3	NULL	NULL
7	2021-05-13 22:46:16	2021-05-24 19:05:32	PASS	0Ykf9lQeQmMKd3mymM-639a9XwQ=	Starbucks	pass.com.starbucks.card	4	NULL	NULL

Apple Cash – Peer Payments

```sql
1   SELECT
2   DATETIME(PAYMENT_TRANSACTION.TRANSACTION_DATE+978307200,'UNIXEPOCH') AS 'TRANSACTION DATE',
3   CASE WHEN PAYMENT_TRANSACTION.AMOUNT = 9223372036854775807 THEN 'NULL' ELSE PAYMENT_TRANSACTION.AMOUNT/100.00 END 'AMOUNT',
4   PAYMENT_TRANSACTION.CURRENCY_CODE AS 'CURRENCY CODE',
5   CASE PAYMENT_TRANSACTION.PEER_PAYMENT_TYPE
6   WHEN 0 THEN 'NON-PEER PAYMENT'
7   WHEN 1 THEN 'SENT'
8   WHEN 2 THEN 'RECEIVED'
9   ELSE PAYMENT_TRANSACTION.PEER_PAYMENT_TYPE
10  END 'PEER PAYMENT TYPE',
11  PAYMENT_TRANSACTION.PEER_PAYMENT_COUNTERPART_HANDLE AS 'PEER PAYMENT HANDLE',
12  PAYMENT_TRANSACTION.PEER_PAYMENT_MEMO AS 'PEER PAYMENT MEMO'
13  FROM PAYMENT_TRANSACTION
14  JOIN PAYMENT_APPLICATION ON PAYMENT_TRANSACTION.SOURCE_PID == PAYMENT_APPLICATION.TRANSACTION_SOURCE_PID
15  WHERE PAYMENT_TRANSACTION.TRANSACTION_TYPE = 3
16  ORDER BY TRANSACTION_DATE
```

	TRANSACTION DATE	AMOUNT	CURRENCY CODE	PEER PAYMENT TYPE	PEER PAYMENT HANDLE	PEER PAYMENT MEMO
1	2021-05-13 14:43:14	10.0	USD	RECEIVED	oompa@csh.rit.edu	NULL
2	2021-05-13 16:14:08	15.0	USD	RECEIVED	oompa@csh.rit.edu	For groceries
3	2021-05-18 17:59:43	20.0	USD	RECEIVED	oompa@csh.rit.edu	NULL
4	2021-05-18 18:15:16	15.0	USD	RECEIVED	oompa@csh.rit.edu	NULL
5	2021-05-18 18:37:32	15.0	USD	SENT	oompa@csh.rit.edu	Back at you

Thursday 12:14 PM

 Pay

$15

For groceries
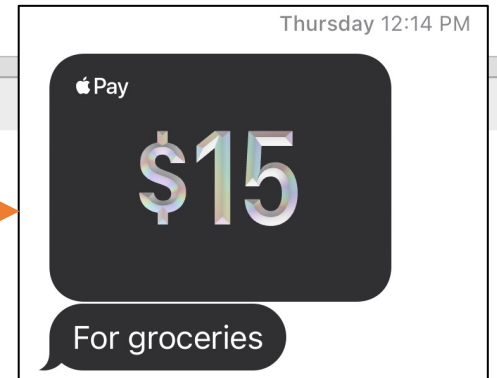
Apple Cash – Daily Cash from Apple Card

	TRANSACTION DATE	STATUS	TRANSACTION TYPE	AMOUNT	CURRENCY CODE	CARD TYPE	PAYMENT TYPE
1	2020-06-06 00:24:01	COMPLETED	APPLE DAILY CASH ADJUSTMENT	0.21	USD	Mastercard	CREDIT CARD
2	2020-08-06 00:34:50	COMPLETED	APPLE DAILY CASH ADJUSTMENT	2.18	USD	Mastercard	CREDIT CARD
3	2021-01-09 01:46:58	COMPLETED	APPLE DAILY CASH ADJUSTMENT	1.17	USD	Mastercard	CREDIT CARD
4	2021-02-19 01:46:03	COMPLETED	APPLE DAILY CASH ADJUSTMENT	0.4	USD	Mastercard	CREDIT CARD
5	2021-06-29 01:10:44	COMPLETED	APPLE DAILY CASH ADJUSTMENT	2.08	USD	Mastercard	CREDIT CARD
6	2021-06-29 01:10:44	COMPLETED	APPLE DAILY CASH ADJUSTMENT	10.85	USD	Mastercard	CREDIT CARD
7	2021-08-19 11:20:05	COMPLETED	APPLE DAILY CASH ADJUSTMENT	0.76	USD	Mastercard	CREDIT CARD
8	2021-08-19 11:20:05	COMPLETED	APPLE DAILY CASH ADJUSTMENT	13.31	USD	Mastercard	CREDIT CARD
9	2021-08-27 16:14:22	COMPLETED	APPLE DAILY CASH ADJUSTMENT	-40.0	USD	Mastercard	CREDIT CARD
10	2021-08-27 16:15:28	COMPLETED	APPLE DAILY CASH ADJUSTMENT	-40.0	USD	Mastercard	CREDIT CARD
11	2021-08-27 16:15:28	COMPLETED	APPLE DAILY CASH ADJUSTMENT	0.4	USD	Mastercard	CREDIT CARD

Transit Usage

- Start/End Stations
- Timestamps
- Coordinates

$2.00

Clarendon Station → Ballston-Marymount University Station
Train
5/18/21, 2:43 PM

Paid with SmarTrip

Clarendon Station → Ballston-Mary...

Stored Value
$8.00

Add Money
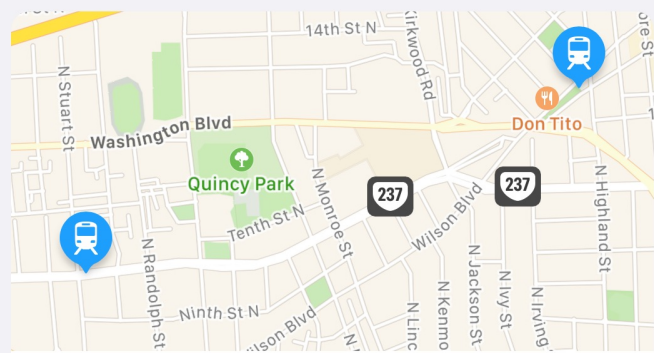
Latest Transactions

Ballston-Marymount... $2.00
From Clarendon Station – Train
5/18/21

```sql
1  SELECT
2  DATETIME(PAYMENT_TRANSACTION.TRANSACTION_DATE+978307200,'UNIXEPOCH') AS 'TRANSACTION DATE',DATETIME(PASS.INGESTED_DATE+978307200,'UNIXEPOCH') AS 'INGESTED DATE',
3  PASS.ORGANIZATION_NAME AS 'ORGANIZATION NAME',PAYMENT_APPLICATION.DISPLAY_NAME AS 'CARD TYPE',PASS.UNIQUE_ID AS 'PASS ID',
4  PAYMENT_TRANSACTION.START_STATION AS 'START STATION',PAYMENT_TRANSACTION.START_STATION_LATITUDE AS 'START STATION LAT',PAYMENT_TRANSACTION.START_STATION_LONGITUDE AS 'START STATION LONG',
5  PAYMENT_TRANSACTION.END_STATION AS 'END STATION',PAYMENT_TRANSACTION.END_STATION_LATITUDE AS 'END STATION LAT',PAYMENT_TRANSACTION.END_STATION_LONGITUDE AS 'END STATION LONG'
6  FROM PAYMENT_TRANSACTION
7  JOIN PAYMENT_APPLICATION ON PAYMENT_TRANSACTION.SOURCE_PID == PAYMENT_APPLICATION.TRANSACTION_SOURCE_PID
8  JOIN PASS ON PAYMENT_APPLICATION.PASS_PID == PASS.PID
```

	TRANSACTION DATE	INGESTED DATE	ORGANIZATION NAME	CARD TYPE	PASS ID	START STATION	START STATION LAT	START STATION LONG	END STATION	END STATION LAT	END STATION LONG
1	2021-05-18 18:43:44	2021-05-13 16:45:55	Washington Metropolitan Area Transit Authority	CubicMiFareDESFire	GvYGdnt6ZtW8WmyIjVGxuW5su28=	Clarendon Station	38.8869662	-77.0953342	Ballston-Marymount University Station	38.8822259	-77.1115426

Apple Card Transactions (Synced on Mac)
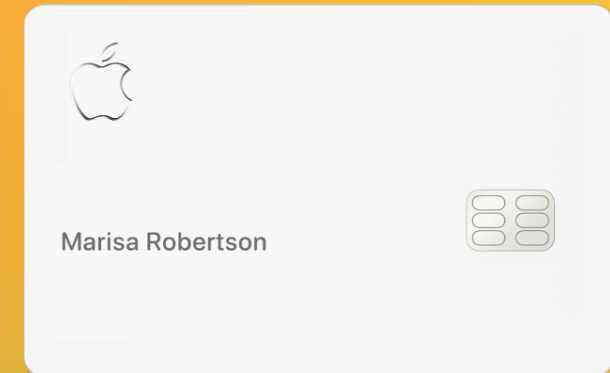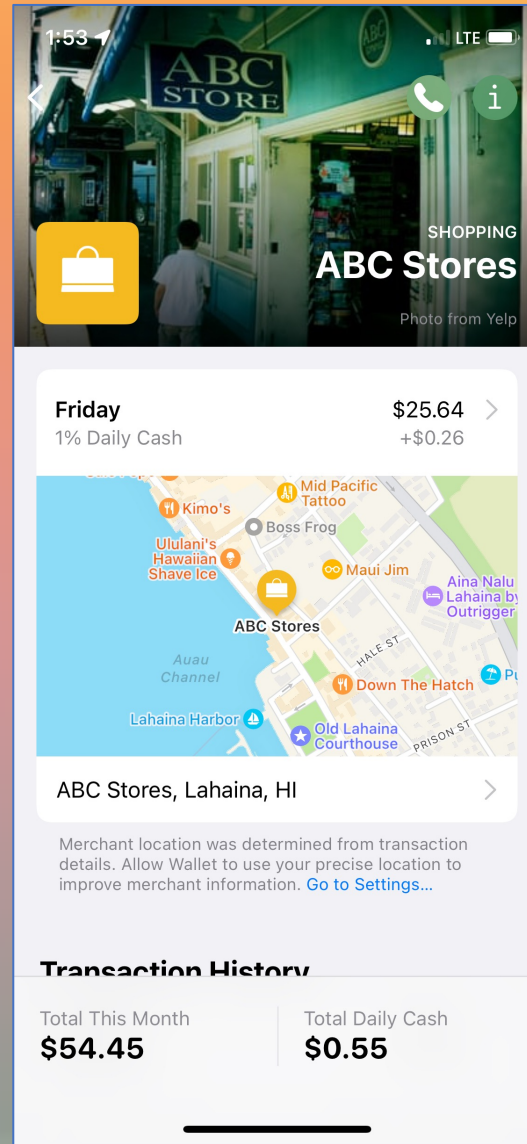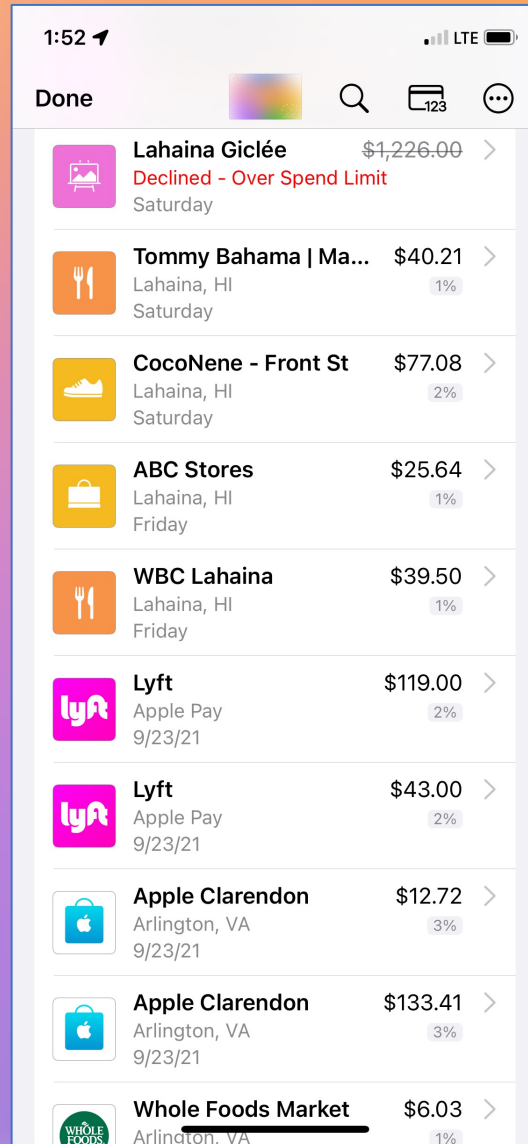
Apple Card Transactions (Synced on Mac)

Marisa Robertson

	TRANSACTION DATE	STATUS	TRANSACTION TYPE	AMOUNT	CURRENCY CODE	CARD TYPE	PAYMENT TYPE	NAME	MERCHANT NAME	MERCHANT CATEGORY
383	2021-09-23 20:09:51	COMPLETED	PURCHASE	6.03	USD	Mastercard	CREDIT CARD	Whole Foods Market	Whole Foods Market	Grocery
384	2021-09-23 20:15:16	COMPLETED	PURCHASE	133.41	USD	Mastercard	CREDIT CARD	Apple Store	Apple Clarendon	Other
385	2021-09-23 20:19:17	COMPLETED	PURCHASE	12.72	USD	Mastercard	CREDIT CARD	Apple Store	Apple Clarendon	Other
386	2021-09-23 21:36:14	COMPLETED	PURCHASE	43.0	USD	Mastercard	CREDIT CARD	Lyft	Lyft	Transportation
387	2021-09-24 08:51:15	COMPLETED	PURCHASE	119.0	USD	Mastercard	CREDIT CARD	Lyft	Lyft	Transportation
388	2021-09-25 04:33:21	COMPLETED	PURCHASE	39.5	USD	Mastercard	CREDIT CARD	NULL	WBC Lahaina	Restaurants
389	2021-09-25 04:48:20	COMPLETED	PURCHASE	25.64	USD	Mastercard	CREDIT CARD	ABC Stores	ABC #42 Hawaii	Other
390	2021-09-25 21:14:21	COMPLETED	PURCHASE	77.08	USD	Mastercard	CREDIT CARD	Island Sole	Coconene Koa Aina	Other
391	2021-09-26 02:51:58	COMPLETED	PURCHASE	40.21	USD	Mastercard	CREDIT CARD	Tommy Bahama Restaurant & Bar	Tommy Bahama	Restaurants
392	2021-09-26 04:23:49	DECLINED	PURCHASE	1226.0	USD	Mastercard	CREDIT CARD	NULL	Lahaina Printsellers	Other
393	2021-09-26 04:24:36	DECLINED	PURCHASE	1226.0	USD	Mastercard	CREDIT CARD	NULL	Lahaina Printsellers	Other
394	2021-09-26 05:21:38	COMPLETED	PURCHASE	17.5	USD	Mastercard	CREDIT CARD	NULL	Sando	Restaurants
395	2021-09-26 20:57:31	COMPLETED	PURCHASE	21.0	USD	Mastercard	CREDIT CARD	Lyft	Lyft	Transportation
396	2021-09-27 22:00:02	COMPLETED	PURCHASE	28.81	USD	Mastercard	CREDIT CARD	ABC Stores	ABC #43 Hawaii	Other
397	2021-09-27 23:43:26	PENDING	PURCHASE	0.0	USD	Mastercard	CREDIT CARD	Apple	Apple Services	Other
398	2021-09-28 05:19:56	PENDING	PURCHASE	38.2	USD	Mastercard	CREDIT CARD	NULL	Down the Hatch	Restaurants
399	2021-09-28 07:20:28	COMPLETED	PURCHASE	9.33	USD	Mastercard	CREDIT CARD	NULL	WBC Lahaina	Restaurants
400	2021-09-28 07:44:07	COMPLETED	PURCHASE	21.0	USD	Mastercard	CREDIT CARD	NULL	Wharf Cinema Center	Other
401	2021-09-28 15:11:18	NOT COMPLETED	PURCHASE	312.5	USD	Mastercard	CREDIT CARD	Westin	Westin Maui Main	Other
402	2021-09-28 15:25:42	COMPLETED	PAYMENT	-2694.02	USD	Mastercard	CREDIT CARD	NULL	NULL	NULL
403	2021-09-29 06:22:17	NOT COMPLETED	PURCHASE	85.79	USD	Mastercard	CREDIT CARD	NULL	Hula Grill M Upngo.com	Restaurants
404	2021-09-29 08:25:53	NOT COMPLETED	PURCHASE	494.79	USD	Mastercard	CREDIT CARD	Westin	Westin Maui Main	Other

Transactions with Multiple Cards/Cash/Transit!

	TRANSACTION DATE	STATUS	TRANSACTION TYPE	AMOUNT	CURRENCY CODE	CARD TYPE	PAYMENT TYPE	NAME	MERCHANT NAME	MERCHANT CATEGORY	PASS ID
1	2021-05-13 14:43:14	COMPLETED	APPLE CASH PEER PAYMENT	10.0	USD	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
2	2021-05-13 16:14:08	COMPLETED	APPLE CASH PEER PAYMENT	15.0	USD	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
3	2021-05-13 16:45:45	COMPLETED	PURCHASE	12.0	USD	Discover	APPLE CASH	NULL	SMARTRIP WASHINGTON DC	Commuter Transport, Ferries	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
4	2021-05-13 17:12:40	COMPLETED	PURCHASE	5.0	USD	Discover	APPLE CASH	Starbucks	STARBUCKS CARD EGIFT	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
5	2021-05-13 17:21:43	NOT COMPLETED	PURCHASE	0.0	USD	American Express	CREDIT CARD	NULL	Pay	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
6	2021-05-13 17:46:56	NOT COMPLETED	PURCHASE	0.0	USD	American Express	CREDIT CARD	NULL	Pay	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
7	2021-05-13 22:40:45	NOT COMPLETED	PURCHASE	0.0	USD	American Express	CREDIT CARD	NULL	Pay	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
8	2021-05-13 22:57:12	NOT COMPLETED	PURCHASE	0.0	USD	American Express	CREDIT CARD	NULL	Pay	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
9	2021-05-17 11:52:55	NOT COMPLETED	PURCHASE	0.0	USD	American Express	CREDIT CARD	NULL	Pay	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
10	2021-05-17 11:53:18	NOT COMPLETED	PURCHASE	0.0	USD	American Express	CREDIT CARD	NULL	Pay	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
11	2021-05-17 11:53:32	NOT COMPLETED	PURCHASE	0.0	USD	American Express	CREDIT CARD	NULL	Pay	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
12	2021-05-18 17:54:49	NOT COMPLETED	PURCHASE	NULL	NULL	American Express	CREDIT CARD	NULL	NULL	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
13	2021-05-18 17:55:24	NOT COMPLETED	PURCHASE	NULL	NULL	American Express	CREDIT CARD	NULL	NULL	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=
14	2021-05-18 17:56:06	COMPLETED	PURCHASE	6.27	USD	Discover	APPLE CASH	Whole Foods Market	WHOLEFDS ARL 10042	Grocery Stores, Supermarkets	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
15	2021-05-18 17:59:43	COMPLETED	APPLE CASH PEER PAYMENT	20.0	USD	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
16	2021-05-18 18:06:33	COMPLETED	PURCHASE	12.86	USD	Discover	APPLE CASH	NULL	SQ *BAKESHOP	Miscellaneous General Merchandise	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
17	2021-05-18 18:13:47	NOT COMPLETED	PURCHASE	NULL	NULL	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
18	2021-05-18 18:14:03	NOT COMPLETED	PURCHASE	NULL	NULL	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
19	2021-05-18 18:14:25	NOT COMPLETED	PURCHASE	NULL	NULL	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
20	2021-05-18 18:15:16	COMPLETED	APPLE CASH PEER PAYMENT	15.0	USD	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
21	2021-05-18 18:15:34	NOT COMPLETED	PURCHASE	NULL	NULL	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
22	2021-05-18 18:37:32	COMPLETED	APPLE CASH PEER PAYMENT	15.0	USD	Discover	APPLE CASH	NULL	NULL	NULL	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
23	2021-05-18 18:43:44	TRANSIT	TRANSIT	NULL	NULL	CubicMiFareDESFire	TRANSIT	NULL	NULL	NULL	GvYGdnt6ZtW8WmyljVGxuW5su28=
24	2021-05-18 18:48:43	COMPLETED	PURCHASE	5.57	USD	Discover	APPLE CASH	Philz Coffee	SQ *PHILZ COFFEE	Eating Places, Restaurants	ja1bSpqfUKWnzR1s2ntMOnjlGhg=
25	2021-05-23 17:04:01	NOT COMPLETED	PURCHASE	0.0	USD	American Express	CREDIT CARD	NULL	Pay	NULL	hhgRM1y6i4QGHuyd9MRut2RHdCY=

Other Database Goodies!

Shipping Information (blackberries, passionfruits)

Apple Card Credit Limit (oranges)

Apple Card Details (raspberries, strawberries)

Merchant Maps Info (maps_merchant)

Merchant Information (plantains)

Much more transaction information!

Data Acquisition & Syncing

Passes

- Synced *.pkpass Bundles
  - May not necessarily be visible on device
- iOS Backup
- Full File System/Jailbreak Dump

Apple Card/Cash

- Synced Transactions
- Primarily in passes23.sqlite database
- Full File System/Jailbreak Dump

Other Credit Cards

- Transactions on device used only
- Primarily in passes23.sqlite database
- Full File System/Jailbreak Dump

Transit

- Transactions on device used only
- Primarily in passes23.sqlite database
- Full File System/Jailbreak Dump

Mahalo! 🤙

Keeping an eye on…

- Car Keys
- Identification (Device unlock situations)
- Apple Family Cash
- More!

SQL queries in APOLLO Project (updating soon!)

- https://github.com/mac4n6/APOLLO

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