

# Transactions page challenge

## Goal

Build a page showing a user's Brex Card transactions. We want to get a sense for how you:

- Understand a problem and architect a solution
- Prioritize work and make trade-offs with time constraints
- Collaborate technically with others

## Agenda

### Part 1: Coding

You will be coding with three frontend engineers for 45 minutes each. We'll be focusing on the following areas over the course of the interview:

- JS, CSS, and HTML
- Architecture
- Data manipulation

### Part 2: Demo, Q&A

This is your chance to meet the team and ask questions. We will:

- Walk through what you've built
- Do a question and answer session about your code
- Discuss any questions you might have about Brex or the team

## Requirements

- Build a list of transactions from data received from the provided API
- Each transaction must:
  - Be styled according to the included design specification
  - Display an orange **M** icon when it has a memo
  - Display the transaction date in the proper format
    - External library use is OK
  - Display the transaction amount with 2 decimal places
  - Toggle a drawer that displays more transaction information when it is clicked
    - Multiple drawers can be open at the same time
  - Have a clickable link to the transaction merchant's website
  - Display a dropdown of all available categories with the current category selected
    - The standard `<select>` element is OK
  - Have a memo input that accepts multiline text
- When a user changes the value in the transaction category dropdown, it must be updated using the `setTransactionCategory` API
- When a user changes the transaction memo and clicks on the **Save** button, it must be updated using the `setTransactionMemo` API

Design

YOUR TRANSACTIONS

Lyft			\$31.00		M
Jan 08, 10:10 AM Transportation Online					
DETAILS			MEMO		
Transaction type	Online		test memo		
Merchant address	San Francisco				
Merchant name	Lyft				
Website	https://lyft.com				
Category	Transportation ▾		Save		
Starbucks			\$9.78		
Jan 08, 6:06 PM Restaurant Online					
Wellington Hotel			\$300.00		
Jan 01, 8:08 PM Lodging Online					
DETAILS			MEMO		
Transaction type	Online		No memo for this transaction		
Merchant address	San Francisco				
Merchant name	Wellington Hotel				
Website	https://wellingtonhotel.com				
Category	Lodging ▾		Save		
American Airlines			\$523.59		
Jan 07, 10:10 PM Airline In Person					
United Airlines			\$499.00		
Jan 07, 3:03 AM Airline Online					
Uber			\$5.99		
Jan 15, 12:12 AM Other Online					

# Data API

- We will provide a `TransactionAPI.js` file that exports the necessary APIs.
- There are 4 API functions: `getTransactions`, `getCategories`, `setTransactionCategory`, and `setTransactionMemo`. Their types and the types of the data they return are listed below.
- All data is persisted to `localStorage` on each call to `setTransactionCategory` and `setTransactionMemo`. Subsequent calls to `getTransactions` and `getCategories` will show the latest changes, even on page refresh.

```
type Transaction = {
  id: string;
  categoryId: string;
  accrualDate: string;
  amountInCents: number;
  merchant: {
    name: string;
    website: string;
    address: string;
  };
  memo: string | null;
  captureMethod: "Online" | "In Person";
};

type Transactions = { [id: string]: Transaction };

type Category = {
  id: string;
  name: string;
};

type Categories = { [id: string]: Category };

function getTransactions(): Promise<Transactions>;

function getCategories(): Promise<Categories>;

function setTransactionCategory(
  transactionId: string,
  categoryId: string,
): Promise<Transaction>;

function setTransactionMemo(
  transactionId: string,
  memo: string,
): Promise<Transaction>;
```