

Case Study Proposal

Plaid

What Is It

Plaid is a software company that provides API's for application software to communicate with banks about customer accounts via language agnostic JSON. Complicating such communications is the need to deal with identity verification, various kinds of error conditions, and the possibility that the same customer might have multiple accounts that need to be accessed simultaneously for aggregate balances, etc.

Banks have much more data about customers than most of us realize, and the Plaid API can get it. Plaid can retrieve such things as the geolocation data for a given transaction and render it into intelligible form. As an example of the latter activity, called "cleaning", the code "SBXUSQ0112x" would be translated as "Starbucks Coffee, 41 Union Square, New York, New York in New York City". The Plaid API can also retrieve the bank's estimates of their customer incomes!

Plaid is in the early stages of using this data to help companies make better offers to customers, so they are just getting into data science.

Why This Matters

Banks do not provide an API for their customer data because there is no financial incentive or regulatory requirement that they do so. Yet this is precisely what is needed for third party fintech companies, such as Betterment and Venmo, who need to seamlessly link to customer bank accounts (To understand this need better, consider PayPal's methodology for linking to a bank account: the customer must enter the account information onto the PayPal web page and wait a few days while PayPal deposits, and then withdraws two amounts of less than a dollar. It is only after the customer enters the amount of those deposits that the link with PayPal becomes operational. Not exactly seamless!).

And that is what 25% of Americans with bank accounts have asked various apps to do in 2018, up 13% from 2017. Yes, the banks have to agree to connect with Plaid, but more than 10,000 of them do, including the likes of JP Morgan Chase, Bank of America, CitiBank, and Wells Fargo. After Plaid's last funding round, its market cap is over \$2.7 billion, making it a start-up "unicorn". An initial public offering (or IPO) in 2019 appears likely.

Why This May Be Interesting

- Since Plaid is so deeply enmeshed in the fintech ecosystem, many people are likely to use the Plaid API, and many others will likely use similar Python-accessible API's. Plaid itself has about 300 employees in its San Francisco location at the moment. As a recent [Forbes article](#) states, "Plaid's founders know that they need to expand the uses of Plaid if they want to be a company

much larger than their predecessors”. In other words, they are in a “grow or die” situation, so they will continue to hire rapidly.

- Plaid also provides the web page fin.plaid.com, which provides think pieces that take the pulse of the current fintech scene.

Things to Keep in Mind for a Case Study

- An explanation of Plaid’s role in the fintech ecosystem
- Explanation of PayPal’s clunky account verification algorithm o Walk-through of Plaid API mechanics as described in the [Forbes article](#)
- A demonstration of how to use Plaid’s API to grab customer data from a hypothetical bank account (Plaid allows prospective users to try such things for free in their “sandbox”).

Resources:

- <https://plaid.com/> (Plaid website)
- <https://www.inc.com/jeff-pruitt/6-fintechs-disrupting-the-industry.html> (Plaid is one of these disruptors, and this article explains more clearly than the Plaid website what Plaid actually does.).
- <https://www.forbes.com/plaid-fintech/#7d07821767f9> (More detail about Plaid.).
- <https://security.stackexchange.com/questions/198005/is-plaid-a-service-which-collects-user-s-banking-login-information-safe-to-use> (StackExchange page discussing Plaid’s security model. It notes that banks themselves do not provide API’s to access customer data, which is the *raison d’être* for Plaid).