API Mania!

FinTech

Lesson 5.2

API Keys

API Keys

API keys are like keys to a house or car: they’re used to get access to resources.

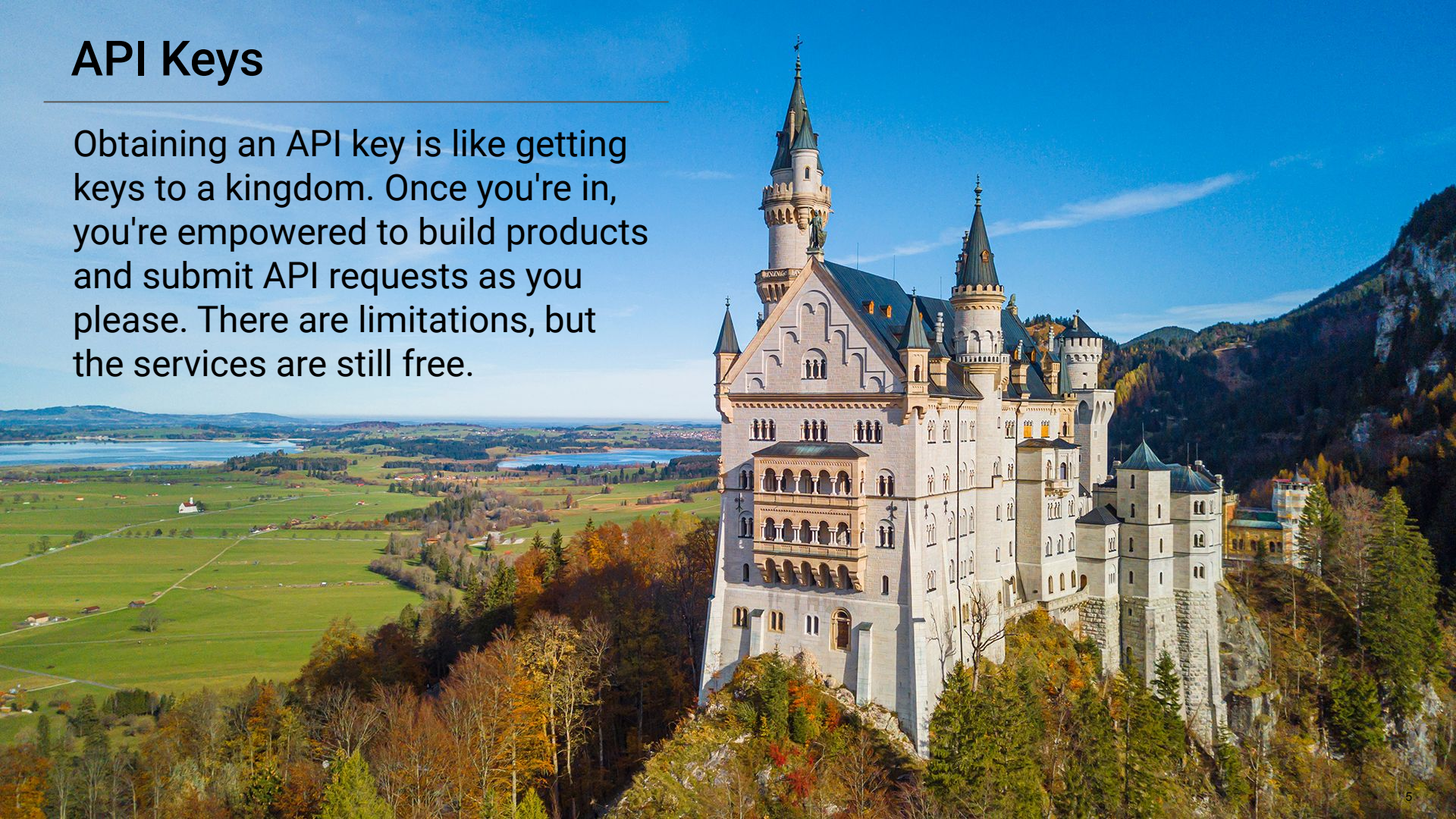
A key must be provided with every request for APIs that require keys.

API Keys

Companies use API keys as a means to secure data, as well as monitor traffic. Using keys in this manner allows companies to limit and block requests as needed.

API Keys

Obtaining an API key is like getting keys to a kingdom. Once you're in, you're empowered to build products and submit API requests as you please. There are limitations, but the services are still free.



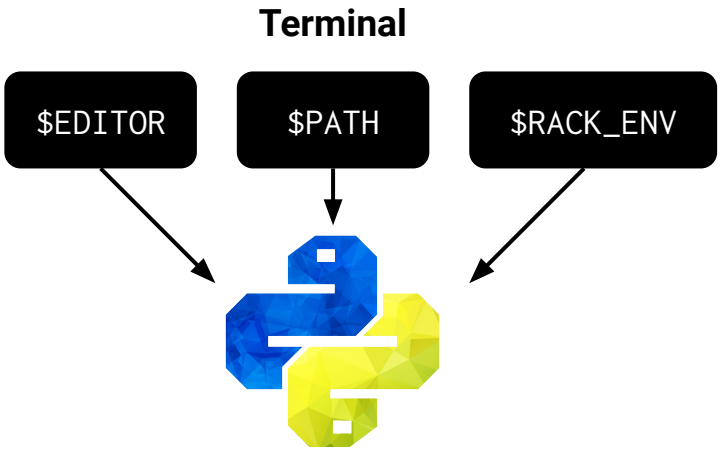
Environment Variables

Environment Variables

API keys are accessed when stored as environment variables.

Environment Variables

Child process gets copies of parent's environment variables



Local Variables

Child process doesn't get any copies of local variables

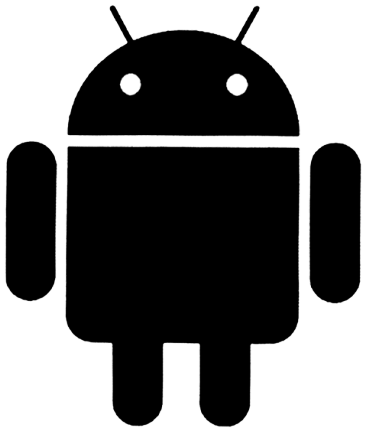
Environment Variables

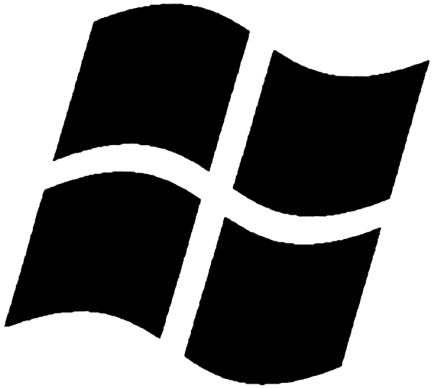
A `keys.sh` file can be used to put API keys into environment variables.

The `keys.sh` file would create the environment variable, and make it accessible by child processes.

Environment Variables

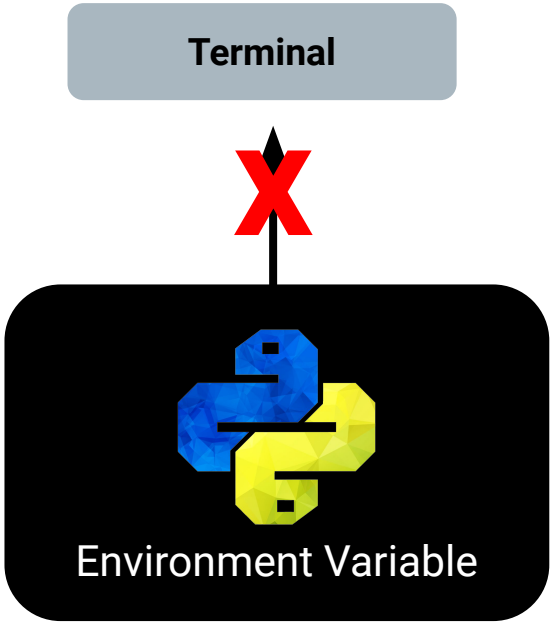
Because environment variables are at the operating system level, variables can be passed down from parent processes to child processes.



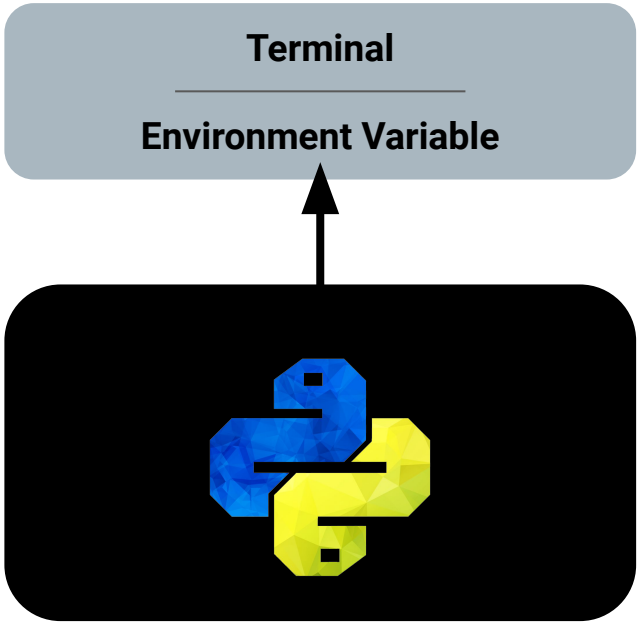


Environment Variables

An environment variable created in Python **cannot** be accessed by a terminal



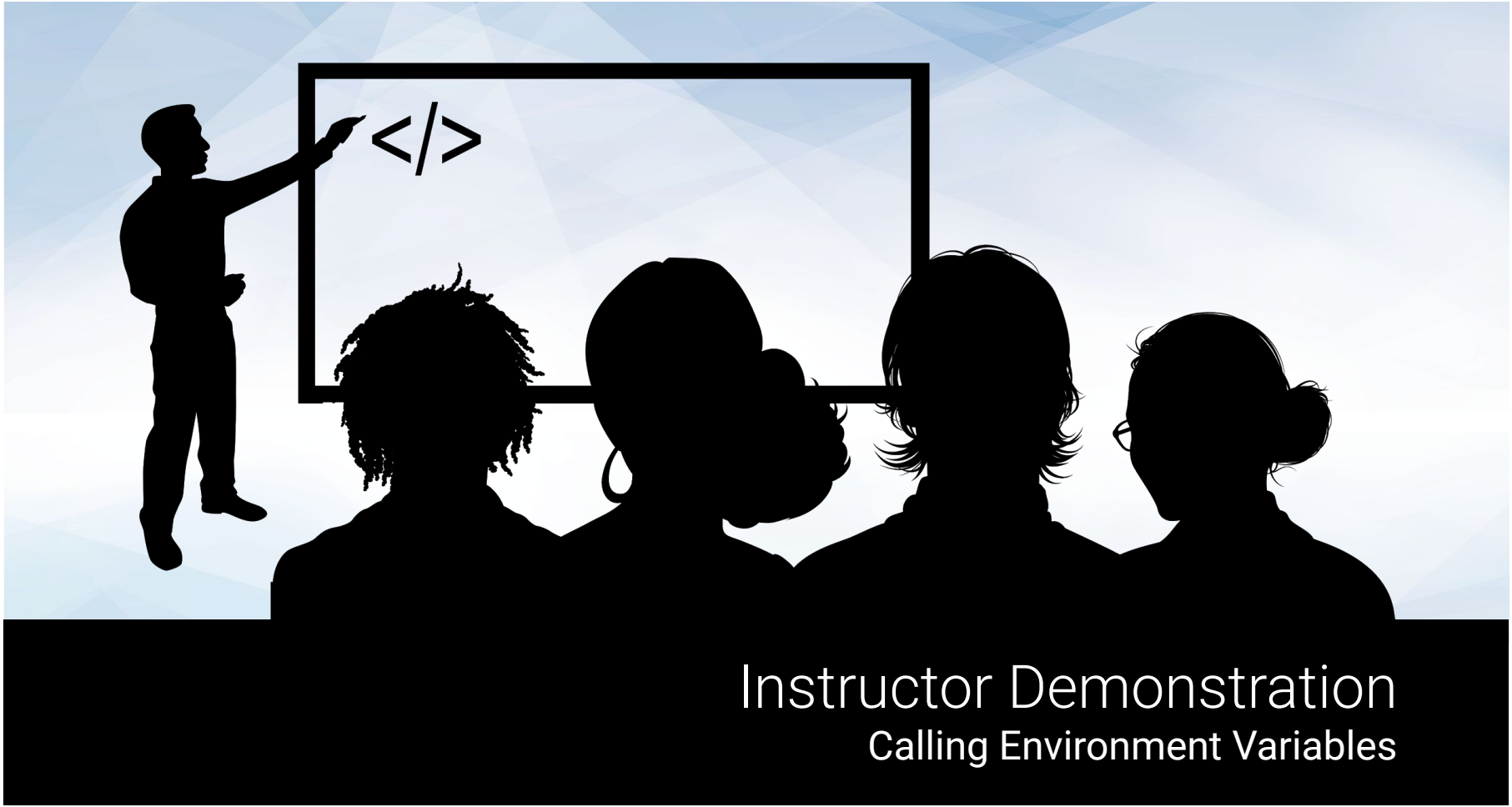
An environment variable created in a terminal can be accessed by Python.



Environment Variables

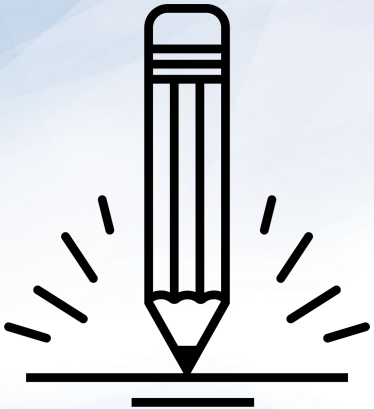
In order to make environment variables inheritable, they have to be exported and sourced.

```
Api_key = os.getenv()
```



Instructor Demonstration

Calling Environment Variables



Activity: Under Lock and Key

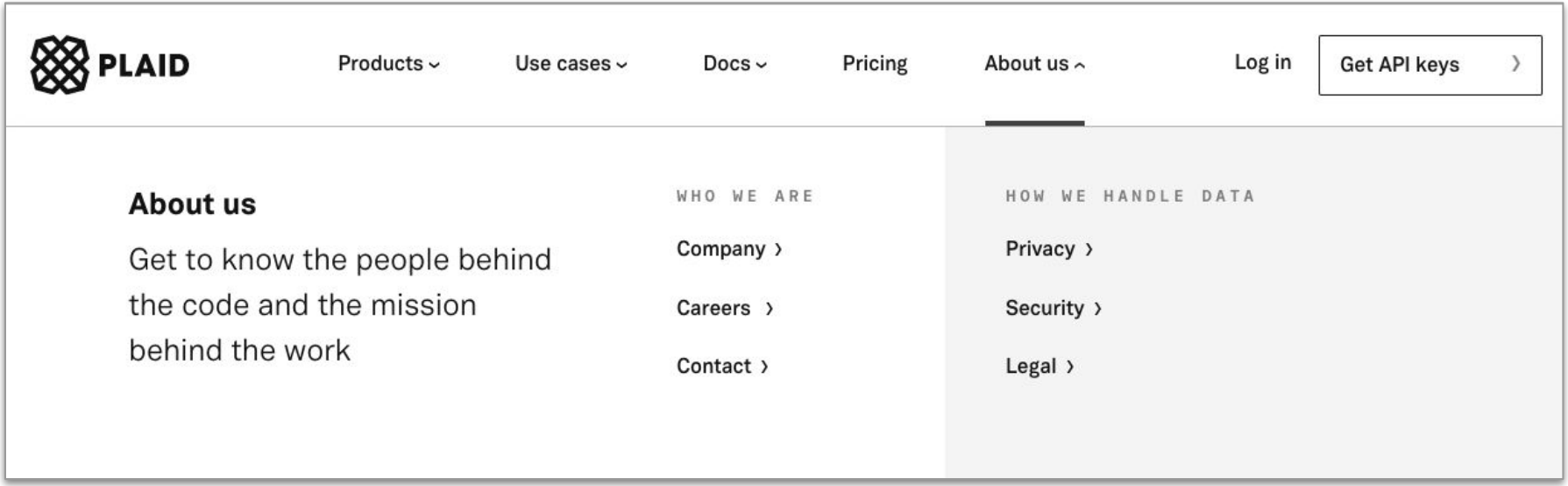
Suggested Time:
20 minutes

Time’s Up! Let’s Review.

SDKs

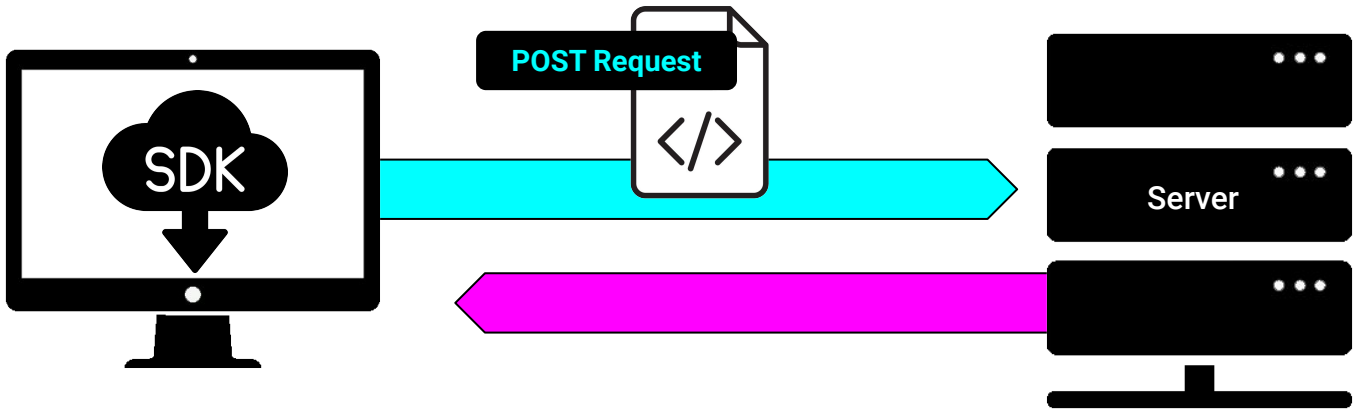
SDKs

Some companies, like Plaid, offer Software Development Kits as a means to submit requests to their APIs.



SDKs

SDKs work in the same fashion as the Python requests library: they provide functions to submit GET and POST API requests.



SDKs

In addition to the generic GET and POST functions though, SDKs offer functions that are specific to their services/API. For example, the Plaid SDK lets you execute a function that returns bank transactions.

```
response = client.Transactions.get(
    access_token,
    start_date="2018-01-01",
    end_date="2018-02-01"
)

transactions = response["transactions"]
```


Break

Plaid SDK

Plaid SDK

Plaid, an API that unifies financial information across bank accounts and offers a platform for data extraction and analysis, comes with a Python SDK called plaid-python that streamlines financial analysis.

The SDK can be downloaded using pip-install.
Pip install plaid-python

Plaid SDK

Plaid is an API made by developers for developers.

01

Plaid is democratizing financial analysis

02

Plaid allows developers to create applications that provide consumers with access to FinTech tools.

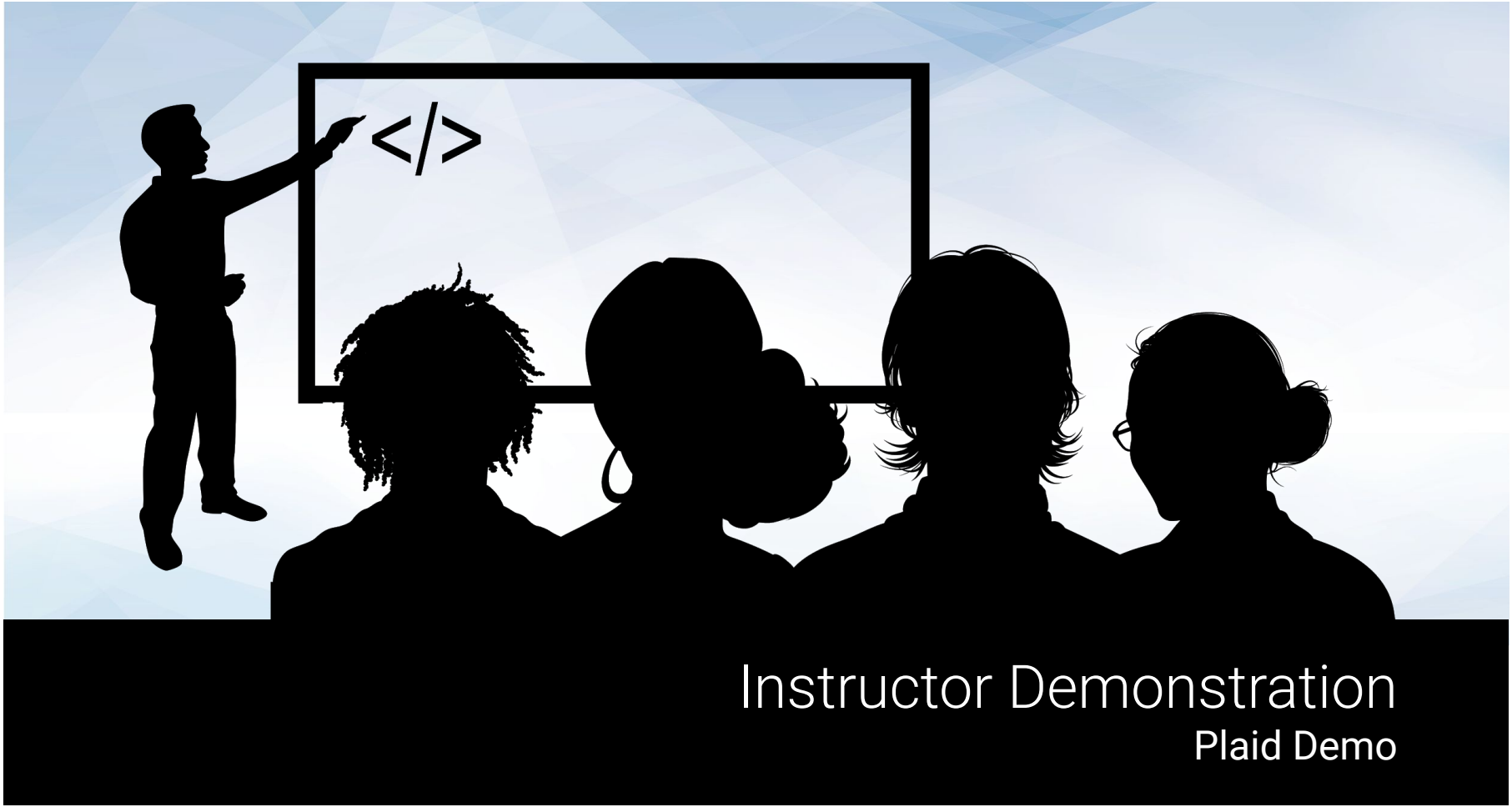
03

The Plaid SDK is intended to give developers access to financial functions and data that have up until now been mostly reserved only for financial advisors.

Plaid SDK

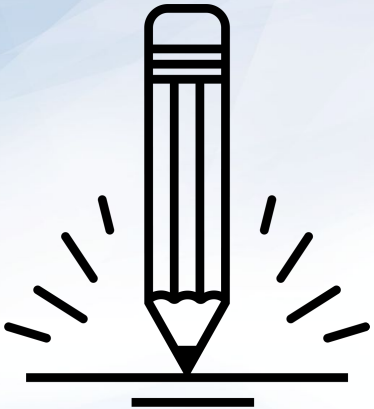
The Plaid API allows users to:

- Connect multiple bank accounts to Plaid platform
- Get account balances
- Extract data from Plaid at the institution and account level
- Create an asset report



Instructor Demonstration

Plaid Demo



Activity: Sporting Plaid Part 1

Suggested Time:
20 minutes

Challenge: Sporting Plaid Part 2

Suggested Time:
25 minutes

Time’s Up! Let’s Review.

Questions?