ALT/FNDATA ACADEMY · MODULE 6

FinTech and data products

This session treats ALT/FNDATA itself as the teaching case: how does a raw, messy, physical-world dataset such as auction and resale transaction records become a commercial data product with a schema, an access tier structure, and a REST API.

90 minutes · sandbox.altfndata.com

SESSION AT A GLANCE

What today looks like

- Length: 90 minutes. A 60 minute and a 110 minute variant are noted under Teaching notes.
- Level: MBA or graduate students in FinTech product design, data product management, or technology entrepreneurship. Pairs well with Module 4 in a course covering both the investment and product-design perspectives on the same dataset.
- Access: the no-code sandbox at sandbox.altfndata.com for the core session, plus the documentation site at docs.altfndata.com. The session is built around the product itself, so it also covers a code extension: an instructor class API key, requested from info@altfndata.com in advance, lets you demo a live production API request; the extension is optional and no coding background is required for the core session.
- Goal: students leave able to name the three access surfaces of a data product, explain the tradeoff behind self-serve versus manually issued access, read an API request and response shape, and sketch an access-tier design of their own.

OBJECTIVES

By the end of class students can

- Describe the three access surfaces of a data product (no-code sandbox, documentation and client library, production API) and the distinct customer need each one serves.
- Explain the tradeoffs between self-serve access and manually issued credentials, using API key provisioning as a concrete example.
- Read and interpret a REST API's request and response shape, including endpoint, headers, filters, and pagination.
- Identify what a data dictionary and coverage browser contribute to a data product's usability, separate from the raw data itself.
- Design a basic access-tier structure for a hypothetical data product, justifying which tier gets self-serve access and which requires manual approval.
- (Extension) Issue a working API request using the reusable Python client and interpret the response envelope.

AGENDA

How the session runs

- 0 to 15 min: Introduce the three access surfaces (sandbox, documentation, production API) and why a data vendor maintains all three rather than just one.
- 15 to 30 min: Guided demo, sandbox as the no-code, self-serve tier.
- 30 to 45 min: Guided demo, documentation and client library as the on-ramp to programmatic access.
- 45 to 60 min: Guided demo, production API request and response shape, including the optional live code extension.
- 60 to 75 min: Small-group exercise, students design an access-tier structure for a hypothetical alternative data product.
- 75 to 88 min: Group share-out of access-tier designs.
- 88 to 90 min: Wrap-up and homework assignment.

LIVE DEMO

The in-class walkthrough

- Open sandbox.altfndata.com and register with a work or school email. Point out to students that approval is automatic, which is a deliberate product decision to remove friction for the self-serve tier.
- Walk through the SQL editor, coverage browser, data dictionary, and schema tabs. Ask students which of these components exist purely to make the raw data usable, as opposed to storing new information.
- Run a simple query against the fine art data table to show the sandbox functioning end to end, using the query in the "Datasets and queries used" section below.
- Switch tabs to docs.altfndata.com and show the quickstart page, the task-based tutorials, and the Evaluation Guide at use-cases.html. Ask students who they think each of these pages is written for.
- Show the downloadable Python client (altfndata_client.py) and the runnable tutorials notebook without running any code yet, describing what each file contains.
- Explain the manual API key issuance process: keys are requested from the ALT/FNDATA team, not self-served, and discuss as a class why a vendor might gate the production API tier behind manual approval while leaving the sandbox open.

LIVE DEMO

The core query

- Run this in the sandbox SQL editor:

```
SELECT item_title, sale_date, usd_price_decimal, vendor
FROM all_fine_art_data
WHERE status = 'sold'
ORDER BY sale_date DESC
LIMIT 25;
```

DISCUSS

Questions for the room

- Why might a data vendor make the sandbox self-serve and auto-approved while keeping the production API behind manual key issuance?
- What does the response envelope's separation of result_count (this page) from the actual total tell you about the design tradeoffs behind pagination?
- What is the purpose of a data dictionary and a coverage browser in a data product, separate from the underlying data tables themselves?
- If you were designing pricing tiers for this product, what would distinguish a tier meant for an individual analyst from a tier meant for an institutional desk running automated queries?
- What risks does a vendor take on by offering a no-code sandbox with real production data, rather than a sample or synthetic dataset?

HOMEWORK

This week's assignment

- Each student or student pair designs a one-page access-tier proposal for a hypothetical alternative data product of their choosing (it does not need to relate to luxury goods or ALT/FNDATA).
- The proposal must define at least three access tiers, specify for each tier whether access is self-serve or manually approved and why, sketch the shape of one example API request and response for the top tier, and identify one risk of the proposed design, drawing an explicit comparison to at least one specific design choice observed in ALT/FNDATA's sandbox, documentation, or API during the session (for example, the choice to auto-approve the sandbox but manually issue production API keys).
- Deliverable:
- a one-page written proposal plus a simple diagram of the three tiers, submitted as a single PDF.
- Grading criteria:

NEXT

Wrapping up

- Restate the one-sentence takeaway before students leave.
- Point to the facilitator guide for discussion guidance and teaching notes.
- Questions or a class API key: info@altfndata.com