

Customized Visualizations and Data Aggregation

FinTech
Lesson 6.2



Class Objectives

By the end of class, you will be able to:



Customize visualizations by using hvPlot attributes and options.



Aggregate data by using the Pandas `groupby` function.



Explore data by using visual aggregation techniques.



Tell a story by using custom visualizations.



Instructor Demonstration

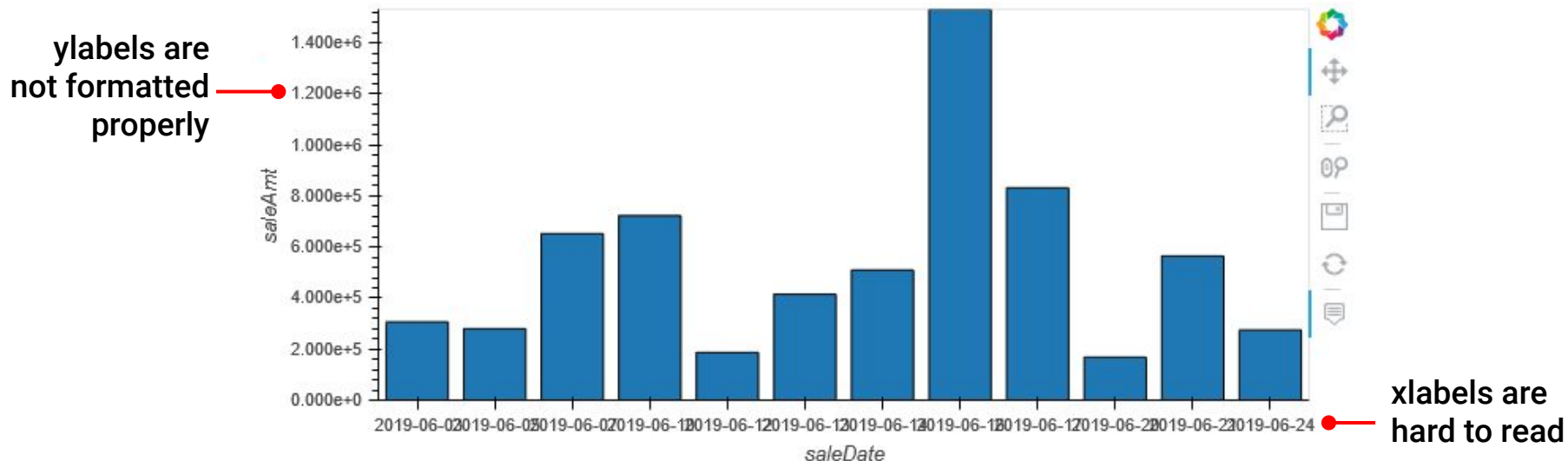
Visualization Options

Visualization Options

hvPlots do not always come out perfect. Customization options give users the ability to customize the look and feel of their visualizations.

```
# Plot data without rotation
```

```
sale_prices_by_year.hvplot.bar(x='saleDate', y='saleAmt')
```





Activity: Picture Perfect

By the end of this activity, you will have employed hvPlot customization attributes and options to perfect and add finishing touches to your visualizations.

(Instructions sent via Slack.)

Suggested Time:
15 Minutes





Time's Up! Let's Review.



Instructor Demonstration

Data Aggregation

Data Aggregation

01

Data storytelling involves numerical, written, and visual explanations of data that are combined to communicate what we understand about that data.

02

Working in fintech, you'll need to do analyses that rely on the relationships among multiple variables.

03

One powerful technique for exploring and understanding data relationships is aggregation.



What techniques have we used to describe or summarize data in the past?

Answer:

**Functions like `mean`, `count`, `sum`, `min`, and `max`.
Each of these functions can summarize, or
aggregate, a sequence of values.**



Activity: Group Dynamics

In this activity, students will use the Pandas groupby function to calculate the aggregate statistics of a DataFrame.

(Instructions sent via Slack.)

Suggested Time:
15 Minutes





Break

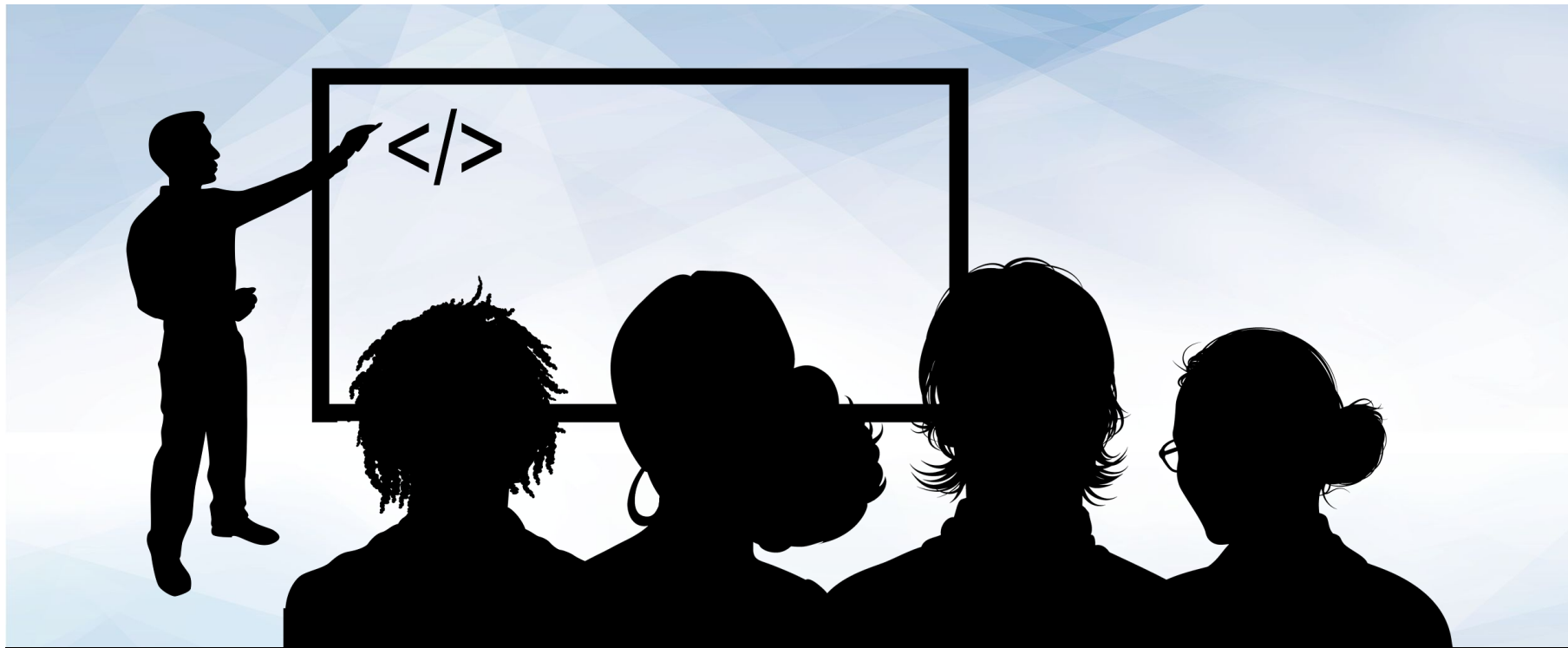
Countdown timer

15:00

(with alarm)

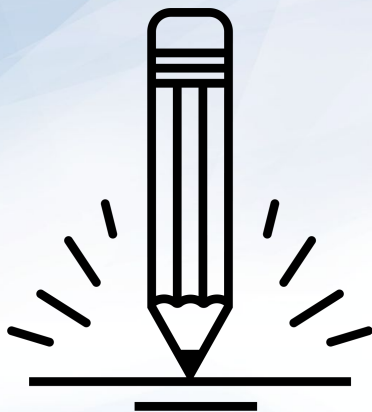


Time's Up! Let's Review.



Instructor Demonstration

Visual Aggregation



Activity: Exploring Medical Payments

In this activity, you'll explore medical payments for diabetes by state. You'll do so by using interactive visualizations, numerical and visual aggregation, and analysis.

(Instructions sent via Slack.)

Suggested Time:
15 Minutes





Time's Up! Let's Review.



Activity: Storytelling with Custom Visualizations

In this activity, you'll explore medical payments for diabetes by state. You'll do so by using interactive visualizations, numerical and visual aggregation, and analysis.

Suggested Time:
15 Minutes





Time's Up! Let's Review.

Recap and Questions

*The
End*