

# MIS 0855 Spring 2015 – Data Science

## *Day 29 – Integrating Data*

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## Where to Find Data

- If you're buying a house, what data do you need to make a decision?
- How many different data sources would you need?



<http://www.moneyunder30.com/how-to-find-a-good-realtor>



Homes Rentals Mortgages Agents Advice Local Home design

GET MORE INFO SAVE HIDE GET UPDATES REPORT LISTING MORE ▾

Pennsylvania · Philadelphia · Center City West · 237 S 18th St Philadelphia PA 19103 · APT 8A





237 S 18th St APT 8A,  
Philadelphia, PA 19103  
2 beds · 2 baths · 2,210 sqft

● FOR SALE  
**\$2,200,000**  
Zestimate®: \$1,113,755

EST. MORTGAGE

[http://www.zillow.com/homedetails/237-S-18th-St-APT-8A-Philadelphia-PA-19103/10602849\\_zpid/](http://www.zillow.com/homedetails/237-S-18th-St-APT-8A-Philadelphia-PA-19103/10602849_zpid/)

## Price History

DATE	EVENT	PRICE		\$/SQFT	SOURCE	
12/20/14	Listed for sale	\$2,200,000	+746%	\$995	Berkshire Hath...	
01/28/93	Sold	\$260,000		\$117	Public Record	

## Tax History




Find assessor information on the county website

YEAR	PROPERTY TAXES	CHANGE	TAX ASSESSMENT	CHANGE
2014	\$13,837	+130%	\$1,032,600	+1,580%
2013	\$6,006	+3.6%	\$61,472	--
2012	\$5,798	+3.9%	\$61,472	--

More 

[http://www.zillow.com/homedetails/237-S-18th-St-APT-8A-Philadelphia-PA-19103/10602849\\_zpid/](http://www.zillow.com/homedetails/237-S-18th-St-APT-8A-Philadelphia-PA-19103/10602849_zpid/)

## Nearby Schools in Philadelphia

SCHOOL RATING		GRADES	DISTANCE
 4 out of 10	Greenfield Albert M School (assigned)	K-8	0.5 mi
 1 out of 10	South Philadelphia High (assigned)	PK, 8-12	1.6 mi
 4 out of 10	Stanton Edwin M School	PK-8	0.5 mi

[More schools in Philadelphia](#)

Data by GreatSchools.org 

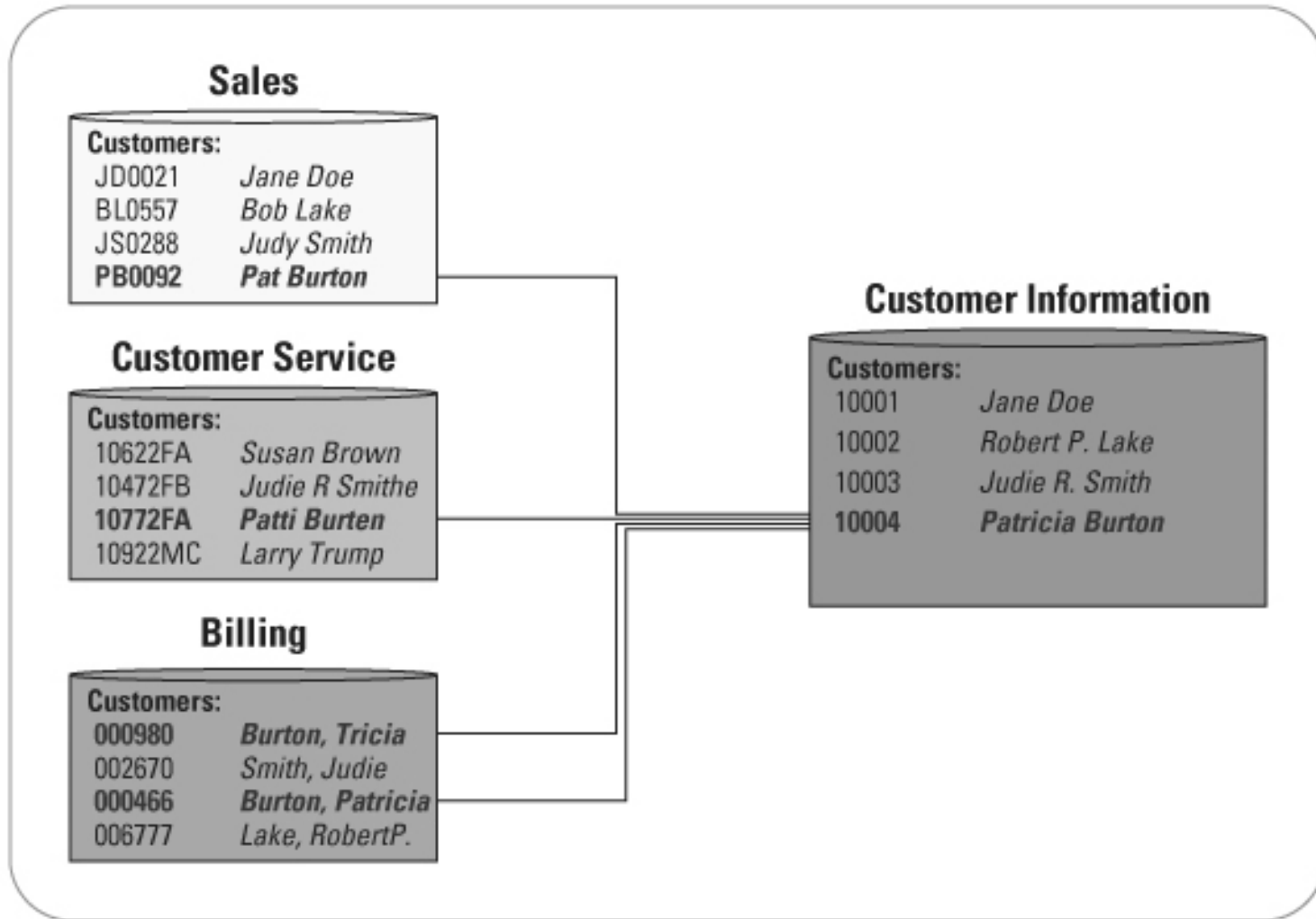
## NYPD Crime Center

- According to the video, how many different databases is NYPD operating?
- To build “Real-Time Crime Center,” they should do what?
  - They need to *integrate* data from multiple sources.

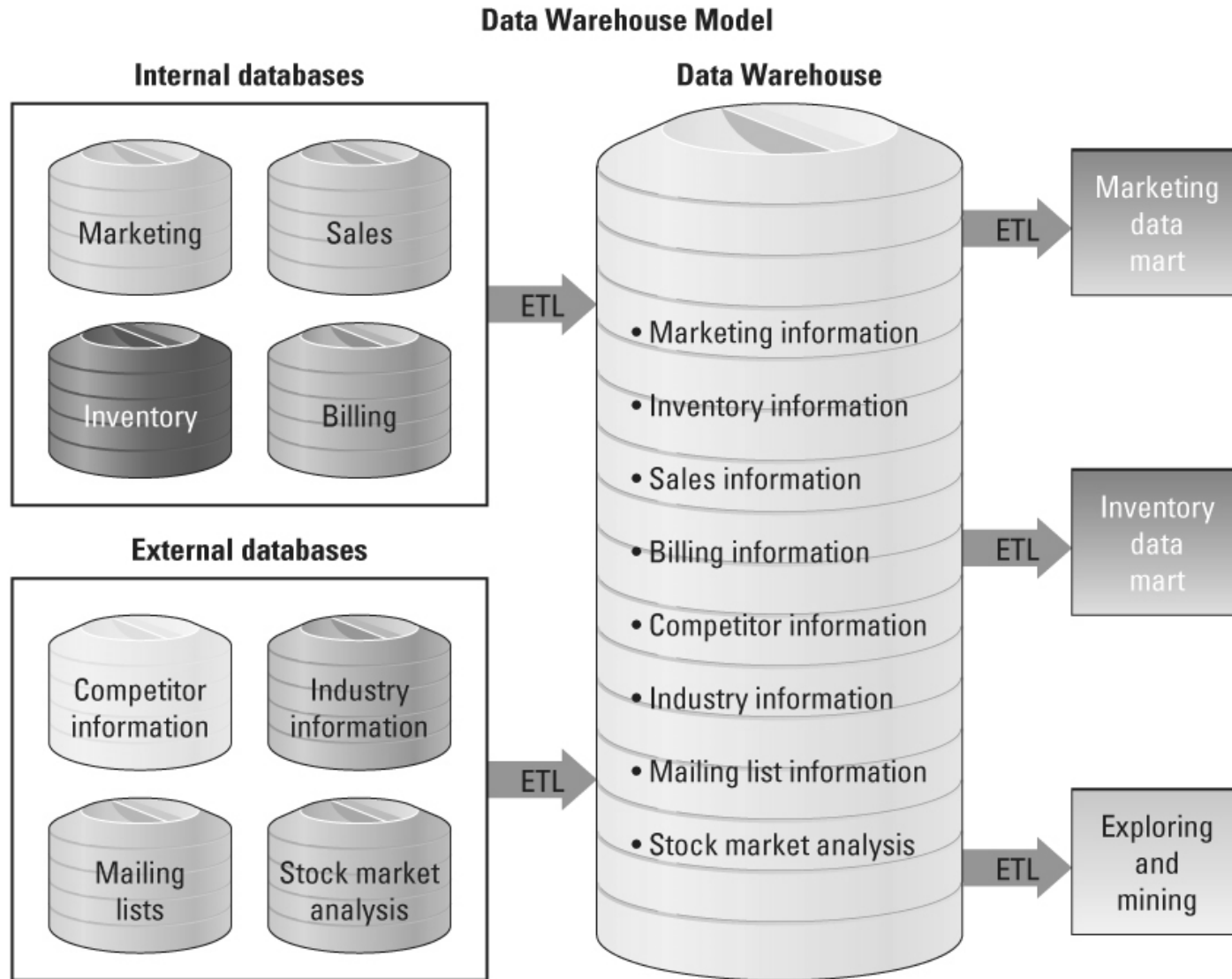


<http://www.nycpolicefoundation.org/programs/real-time-crime-center/>

# Data Integration



# Data Warehouse





# ETL – A Key Step in Building Data Warehouse

- Extracts data from internal and external databases
- Transforms the data so that it has common definitions and formats, and
- Loads the transformed data into a data warehouse