

# Data Quality

# After this video you will be able to..

- Describe three data quality issues
- Name three reasons for poor data quality
- Explain why data quality issues need to be addressed

# Data Quality Issues

- Real-world data is messy!



# Missing Data

Name	Age	Income
Angela	34	80
Sidney	--	56
Ratan	10	--
Kiril	68	--
Zhou	45	120

**Missing Values**

# Duplicate Data

Name	Address
Angela	430 Park Drive
Sidney	7800 West View Street
Sid	7800 West View Street
Ratan	12442 Mountain Avenue
Kiril	45 East 5 <sup>th</sup> St
Kiril	1220 Mill Avenue
Zhou	4345 Apple Lane

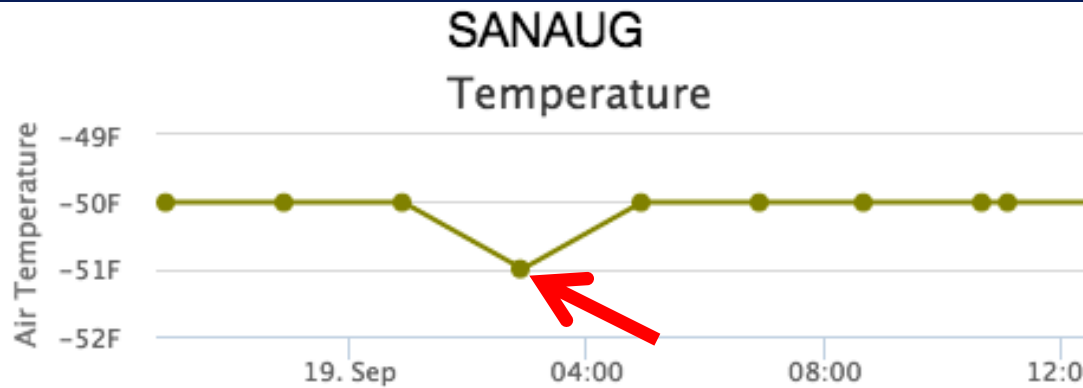
# Invalid Data

Name	Zip Code
Angela	346412
Sidney	92618
Ratan	8033A
Kiril	11012
Zhou	59285

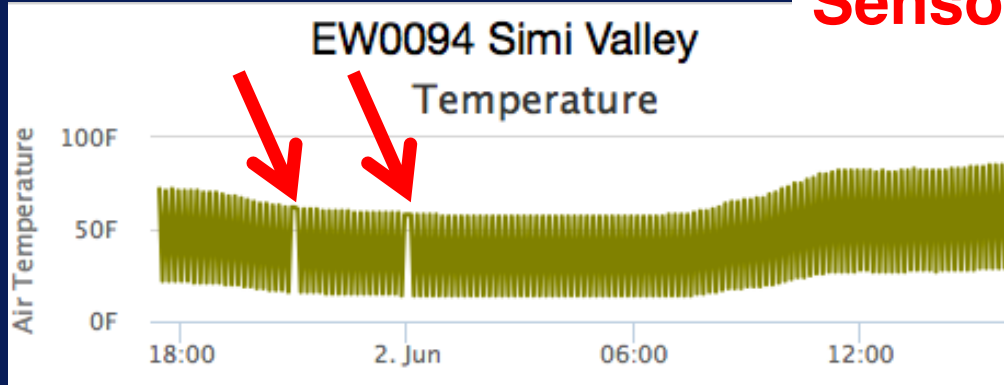
# Noise

Name	Address
Angela	430 Park Drive
Sidney	780 ★❖©◆ View Street
Ratan	12443 Mountain Avenue
Kiril	1220 Mill Avenue
ZhČou	4345 Apple Lane

# Outliers



**Sensor Failure**





# Why Address Data Quality Issues?

Poor  
Data  
Quality



Poor  
Analysis  
Results