

**FOSTER**

Master of  
Professional Accounting

# **DATA ANALYTICS FOR PROFESSIONAL ACCOUNTANTS**

ACCTG 522



# A little bit about me



- ❖ My name is Asher
- ❖ I'm one of six EYARC Academic Fellows
- ❖ I am here to help you learn data analytics and emerging technology!

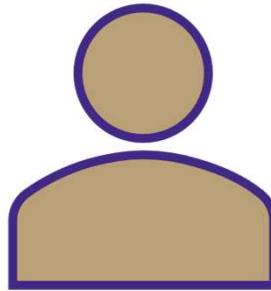
# **Celebrating our differences**

**Each team member shares something potentially unique about themselves, if that is a unique fact, add it to the list of unique items on pollEverywhere.**

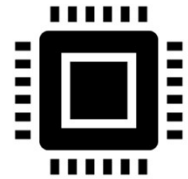
# Agenda



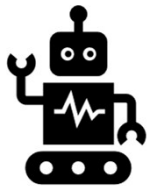
The Analytical Mindset



Professionalism



The Innovation Mindset



Adaptability & Resilience



The Questioning Mindset



Teamwork & Communication

Ask the right questions



Gain familiarity with data analytics tools

Understand data characteristics and relevance

### The Analytical Mindset

Understand the purpose of different data analytics for different cases

Understand the flow of data through accounting systems

Capture or know how to capture data

# Educational Partners

**FOSTER**  
**SCHOOL OF BUSINESS**

UNIVERSITY of WASHINGTON

Master of Professional Accounting

## Advisory Board

Ernst & Young  
**FOUNDATION**<sup>TM</sup>

Academic Resource Center

**UiPath** | Academic Alliance

# Syllabus

[https://www.ashercurtis.me/teaching/courses/  
acctg522/syllabus.html](https://www.ashercurtis.me/teaching/courses/acctg522/syllabus.html)



# Review and ETL Overview

# The Analytical Mindset

**The Analytical Mindset** is defined as the ability to work with data to apply appropriate analytics and interpret and share insight with stakeholders.

# Why do we care about Data Quality?

Analytics quality (and insight) is driven by data quality.

**Garbage in = Garbage Out !**



Why do we care about Extract, Transform & Load (ETL)?

The Extract, Transform & Load or ETL Process is the **first task** required to complete the analytical process.

- In most cases, data required for the analytical process is stored in a database and must be **extracted** from that database and **loaded** into analytics software.

## Why do we care about Extract, Transform & Load (ETL)?

In most cases, the data will also have to be transformed, or **modified** to apply analytics tools

- this can include **calculating** additional variables (like multiplying price and quantity to get sales),
- **cleaning** the data due to differences in formatting,
- **preparing** and **joining** datasets,
- and **transposing** or **pivoting** the data.

# Identifying data issues

**See website for cases (background and today)**

<https://www.ashercurtis.me/teaching/courses/acctg522/class01.html>

**There are 9 data quality issues with the file:**

- **Identify the issues and why**
- **Propose how they could be solved**

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Ticker	Name	Year	Cash	Accounts Receivables	Inventories	Total Current Assets	Total Depreciation
AAL	American Airlines Group Inc.	2016	3220000000	"1,600,000,000"	1094000000	10300	(14200000000)
AAL	American Airlines Group Inc.	2017	2950000000	"1,800,000,000"	1359000000	9100	(15600000000)
AAL	American Airlines Group Inc.	2018	2750000000	"1,700,000,000"	1522000000	8600	(17400000000)
AAPL	Apple, Inc.	2016	20500 M	"15,800,000,000"	2100000000	106900	(34200000000)
AAPL	Apple, Inc.	2017	20300 M	"17,900,000,000"	4900000000	128600	(41300000000)
AAPL	Apple, Inc.	2018	25900 M	"23,200,000,000"	4000000000	131300	(49100000000)
ACY	Aerocentury Corp.	2016	2200000	4000000	0,6	-23000000	
ACY	Aerocentury Corp.	2017	8700000	3800000	-	12	-14600000
ACY	Aerocentury Corp.	2018	1500000	4000000	0,5	-14700000	
AEHR	Aehr Test Systems	2016	900 K	"500,000"	7000000	9	-5700000
AEHR	Aehr Test Systems	2017	17800 K	"4,000,000"	6600000	29	-6000000
AEHR	Aehr Test Systems	2018	16800 K	"2,900,000"	9000000	29	-6400000
	Armada Hoffler Properties Inc.	2016	21900000	"15,100,000"		0	-139600000
	Armada Hoffler Properties Inc.	2017	19900000	"15,700,000"		0	-164500000
	Armada Hoffler Properties Inc.	2018	21300000	"19,100,000"	-	0	-188800000
AMZN	Amazon.com Inc.	2016	19330000000	8340000000	11500000000	45780	(13330000000)
A M Z N	Amazon.com Inc.	2017	31750000000	16680000000	17170000000	162650	(33970000000)
AM ZN	Amazon.com Inc.	2018	20520000000	13160000000	16050000000	60200	(23790000000)
APVO	Aptevo Therapeutics Inc.	2016	9700 K	"4300000"	6600000	71	(6600000)
APVO	Aptevo Therapeutics Inc.	2017	7100 K	"2100000"	1000000	95	(7500000)
APVO	Aptevo Therapeutics Inc.	2018	30600 K	"5200000"	1800000	49	(8700000)
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# ETL Cases in the FSB Remote Labs

<https://fprod-hcs.foster.uw.edu/>

# In the U Drive of FSB Remote Labs, clone the repo:

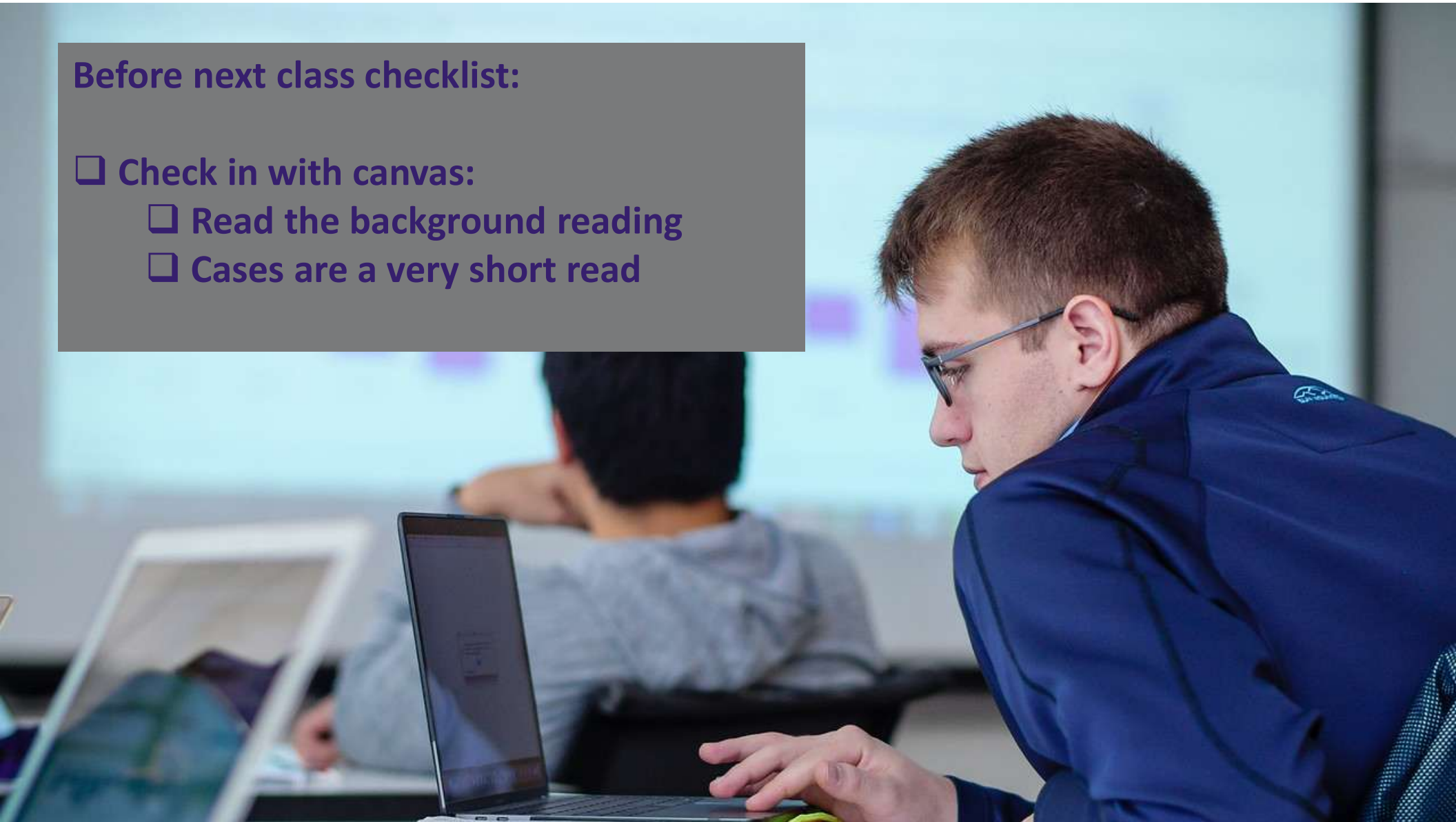
```
git clone https://github.com/ashercurtis/datasets.io
```

# Conclusion

This course is aimed at advancing the analytical mindset and skill set practically.

## Before next class checklist:

- ☐ Check in with canvas:
  - ☐ Read the background reading
  - ☐ Cases are a very short read



# Thank You and Congrats!

