DATA VERACITY: GENERATIVE AI 1

Advanced Cases in Assurance Services (ACCTG 521)

Class 13 | MPAcc class of 2026

Agenda

Review: Mindbridge AI

Overview: Individual Deliverable (Due Nov 13th)

Labs:

- Preliminary Tests on Pure Oils Test Data
- Check Another File (time permitting, helps w/ heading 2)
- Time for Memo Drafting (headings 1 & 2 and Appendix 1).

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Swindler Case Part 2

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Part Two Requirements

Perform at least seven tests that will help determine if the data set is real or fake. Your tests can use the data included in the file Skylar sent you or you can add external data. If you add external data, include the link in the test explanation showing where you acquired the data.

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Memo Requirements

- Documentation of Preliminary Testing Environment (started today)
- Outline of Expectations (more sophisticated Generative AI, next class)
- Analysis of Increasing Gen AI sophistication and implications (next class)

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Memorandum

To: Asher Curtis
From: {Your Name}, Data Veracity Specialist
Topic: Building a Testing Environment for Generative AI Fabricated Data

Preliminary Analysis

Two Paragraphs to half a page on the preliminary analyses run and key takeaways. Reference Appendix 1, "Top 7 Preliminary Tests on Pure Oils Test Data"

Expectations for Subsequent Analysis

One to two paragraphs on your expectations about the subsequent analysis including (but not limited to) potential automation of testing any number of files using the logic from the preliminary analyses run; expectations about how changes in Gen AI sophistication can impact input data and testing; any other trade-offs or expected challenges including ETL.

Gen AI Sophistication Analysis

Up to half a page of discussion of the Gen AI sophistication analyses and key take-aways. Discuss the trends/features/takeaways of increasing Gen AI sophistication in the input data had on the testing environment. Reference Appendix 2.

Conclusions

Conclude your analysis.

Directly from Case

+ Ask the Right Questions

Appendix·1:¶

Top·7·Preliminary·Tests·on·Pure·Oils·Test·Data¶

Test·#	Expectation·(include·why)	Test·(with·references)·	Conclusion	Questions·to·Ask	
1					
2					
3					
4					
5					
6					
7					

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------------- Page Break ------------¶

Based on the conclusion from the test, what question would you ask the hypothetical manager / borrower?

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ETL Process

Add if variables need to be renamed

The workflow is set-up to read in the test file.

Check for differences in:
1) Names of fields:
 *The current field names are: {UniqueID,LastName,FirstName,JobTitle,Department,HireDate,LastPromotionDate,TerminationDate,AnnualSalary}
 *Any differences must be renamed for the ETL and subsequent analysis to work correctly. If the headers are different use the spare select tool.

2) Date formats on incoming fields:
 *The current date formats are all "dd/MM/yyyy"
 * if the date formats are different update the the three date time parse tools to correct for the different incoming date formats.

3) Other fields not in the test dataset:
 *If there are additional unexpected fields, you can make a note of these fields and retain that note as part of the analysis, or use the unexpected fields as part of your subsequent analysis.

Suspicious File Read

Read in test file to build analyses.

After testing your workflow on the test file, examine what you need to change in the ETL to get your file(s) ready for analysis

Convert and format HireDate | Convert and format LastPromotionDate | Convert and format TerminationDate | Parse denomination and amount from salary | Indicate if there are two last names or not | Calculations to support various analyses, can be modified to suit your analysis. | Retain only some fields | Sort by date of hire - ascending

Use containers to categorize your tests. Consider tests in the form of:

1) Basic Intuition Analyses: Expected facts from the case.
2) Date Analyses: logical date sequences for events (i.e., some events cannot occur before/after other events)
3) Job Title and Salary Analyses: Logical company positions and structure at various ranks.
4) Salary Analyses: Logical salary hierarchy and variation.
5) Name Analyses: Consistency with expectations about case background.
6) Hiring Analyses: Logical company hiring/firing patterns
and 7) Other Analyses: Any other tests not defined above.

1) Basic Intuition Analyses | 2) Date Analyses | 3) Job Title Analyses | 4) Salary Analyses | 5) Name Analyses | 6) Hiring Analyses | 7) Other Analyses

Thank you!