Thinking about Data Integrity

Context: These tasks were designed as part of a data-structures assignment on implementing both mutable and immutable (linked) lists. The goal was to help students understand the tradeoffs between mutable and immutable data in a concrete and human-facing context.

Task: Read What is Data Integrity and Why Is It Important? and answer the following questions:

- **Question 1:**
  - Provide an example of a system or industry that relies on accurate and consistent data.
  - Using the situation you described above, answer these questions:
    - Who are the stakeholders of that system/industry?
    - Describe at least two ways in which *specific types* of data integrity could be violated in this situation.
    - How could/would the stakeholders be adversely affected by those violations? (2-3 sentences)
- **Question 2:** Describe:
  - One way that using mutable lists could put data integrity at risk (1-2 sentences)
  - One way that using immutable lists could help preserve data integrity (1-2 sentences)
  - Bonus question (optional): Can you think of a way that mutable lists could help preserve data integrity, or that immutable lists could put data integrity at risk? If so, describe your thoughts!
- **Question 3:** Look at the products page for Talend's website. How does the knowledge that Talend sells data integrity software affect your understanding of the article, if at all? (~2 sentences)

Task: Read Ownership Or Rights: What's the path to achieving true agency over data?, then answer all the questions listed below each item, using one short paragraph per question (approx. 3-5 sentences).

- **Question 4:** Pavel surveys experts' opinions on data ownership and what it means to have agency over one's data. Identify two specific claims or statements in the article that changed how you think about your agency over data (either now or when you first encountered those ideas). What specifically changed for you? (i.e., what preconceptions did you hold, and what had you never thought about?)
- **Question 5:** If you could have asked one followup question to the panelists, what would it have been, and why?

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