In-class Exercises: More Advanced XPath and XQuery

Our ultimate goal is to find the sid of every student who gave an answer to every True-False question on the quiz, and to produce output in this format:

\[
\text{<COMPLETE>}
\begin{align*}
&\text{<SID>12345</SID>} \\
&\text{<SID>23456</SID>} \\
&\text{<SID>34567</SID>}
\end{align*}
\text{</COMPLETE>}
\]

We'll develop the answer in several steps.

1. First, find the sid of every student. Any output format is fine.

2. Now do the same thing, but make the output be a sequence of SID elements, each with a student number inside. Example: \text{<SID>998801234</SID>}

3. Write a query to find the QID of every quiz question. Any output format is fine. (We'll integrate this with the information about students later.)
4. Modify your last query to find QIDs of only the True-False questions.

5. Go back to your query that prints out all the SIDs. Extend it by adding a where clause that will later let us pick only the right students to include. For now, make that where clause always succeed. Add in code that stores the QIDs of the True-False questions in a variable. (We’ll use that when we write the proper where clause.)
6. Modify the where clause so that only students who’ve answered every True-False question are included in the output.

7. Finally, modify your code so that all the SID elements are wrapped up in a COMPLETE element.