Assignment Three: relational database exercise

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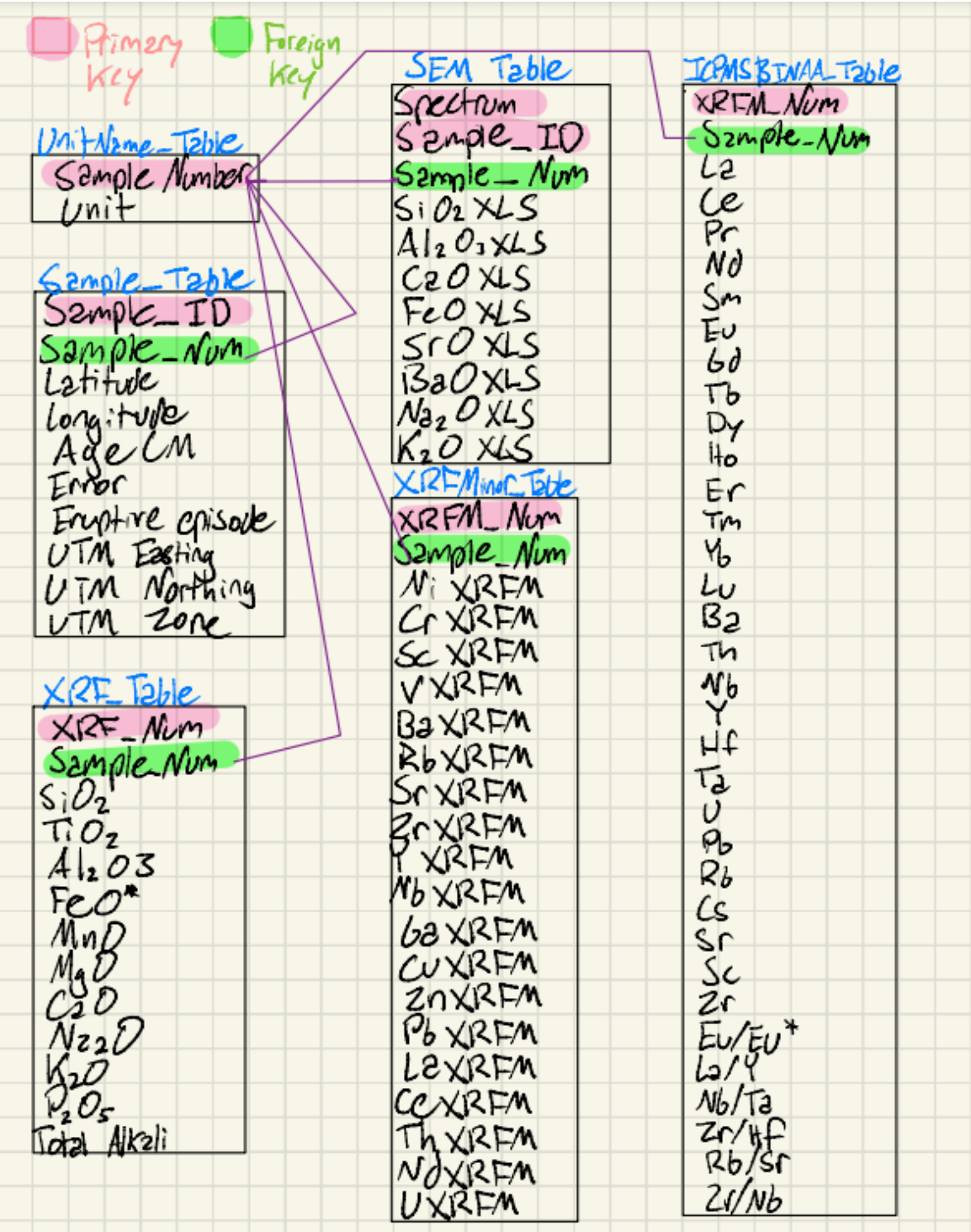
Assignment Three

We created six tables for this assignment. The six tables are UnitName_Table, Sample_Table, SEM_Table, XRF_Table, XRFMinor_Table, and ICPMS&INAA_Table. We take the Unit name as our main table, this table stores all the Units, and we create a Sample_Num as our Primary Key. We can use Sample_Num as our interface to link other tables.

All samples are stored in Sample_Table, and our Sample_Num identifies the Unit corresponding to all samples with the same number. Through this method, we can more easily use Sample_Num to find out all the Samples data related to the Unit.

SEM_Table mainly stores some Spectrum of Sample. We use Spectrum and Sample to form the Primary Key of this table, because the same Spectrum may appear in different Samples. We also create a Sample_Num in this table, so that we can use the Unit Name to find the corresponding Spectrum.

The logic of the remaining three tables is roughly the same, which mainly stores some Unit-related data. We have created two columns in these three tables. The first column stores the corresponding number of each row of data and serves as the Primary Key of the table. The second column stores the corresponding Sample_Num and serves as the Foreign Key of the Table.



[Google Sheet Link:]

https://docs.google.com/spreadsheets/d/19Giso7Ug5-fvLfkw8kIF8Ug0FCGx7A1ZyngUZ8amB7g/edit?usp=sharing