**Project Problems**

Several problems arose when translating the assignment to a conceptual database, and then the conceptual database to a working database. These included:

* Normalization issues
* Consistent use of values
* SQL Developer software access and feature quirks

When first normalizing the database, the team had difficulties determining what information was relevant to the normalization. The relation was first normalized incorrectly, with two attributes being added to the relation to solve what the team thought was a transitive dependency. Upon realizing this was not the correct way to normalize the relation, the relation was re-normalized, with the extraneous attributes removed. The team used their knowledge of college registration systems to normalize and simplify the relation to a correct state.

Another issue that arose was inconsistent use of values for attributes. Team members would accidentally label data dictionary values, relation values, or ERD values with the incorrect data types. This caused confusion on how the relation was structured and caused loss of points on projects. This issue was solved by creating a master list of each attribute and their associated type for the team to refer to.

A particularly troublesome issue arose when some team members were unable to install SQL Developer on their personal computers properly. This cause a bulk of work for the project to be done in class, as team members did not have access to the database outside of class. A way the team combatted this issue was to write commands in SQL Live, to check for syntactical correctness, and the run them on the database while they had access on campus. This strategy worked, but caused other issues, namely structural problems. SQL Live was able to check for syntactic correctness, but not structural correctness between foreign key relations and other constraints.

Another SQL Developer related issue was the creation of the logical and relational ER diagrams. Figuring out how to create the relational diagram, and then translate that into a logical diagram using SQL Developers tools was quite troublesome, as SQL Developer is fragmented into many different versions, some of which do not have the correct tools to create ER diagrams at all.

Besides these problems the team worked well together to turn a concept into a functioning project. We were able to work through each issue and find solutions to most problems with only a little effort.