Caleb Hayden

CIS 310-01

Assignment A1

11A-B.



11C. The above spreadsheet is quite redundant, and examples of this redundancy can be found in nearly every attribute. For example, there are only 3 different students listed on the spreadsheet, however, students’ names and ID numbers are repeated for each record associated with that student’s class schedule. For example: Sam’s name and ID are repeated 4 times because he is taking 4 classes this semester. Also, every time a class is repeated on the spreadsheet, such as “CIS 310”, which appears 3 times, the CLASS\_CODE, CLASS\_CREDHOURS, INST\_NAME, CLASS\_DAYS, CLASS\_TIMES, and ROOM fields are all repeated. Lastly, arguably the most redundant attribute on the spreadsheet is the CLASS\_CREDHOURS field, which has the same value of “3” for every record.

One example of an update anomaly would be if the room number of a class, say CIS 310, were changed from BS 008 to BS 003. On the spreadsheet itself, the anomaly would occur if at least one of the records that contained “CIS 310” in the CLASS\_NAME field did not have its ROOM field properly updated to reflect the change from “BS 008” to “BS 003”.