**Jake Bucher – Mason Conroy – Jesus Torres**

**Part one:**

Table

Description automatically generated

1. How many records does the file contain? How many fields are there per record?
2. 7 records and there are 5 fields per record
3. What problem would you encounter if you wanted to produce a listing by city? How would you sole this problem by altering the file structure?
4. You can’t search by city due to it is comma separated and is in the same information as the street, zipcode and state. To fix it would be to have a manager address, city, state and zipcode separately.
5. What data redundancies do you detect? How could those redundancies lead to anomalies?
6. It appears that since one person bid three times, she pops up multiple times causing redundancies in the same information being put there three times. If you search by names, the person with the redundancies will pop up multiple times instead of just once.

**Part two:**

Table

Description automatically generatedUsing your school’s student information system, print your class schedule. The schedule probably would contain the student identification number, student name, class code, class name, class credit hours, class instructor name, the class meeting days and times, and the class room number. Use **Figure P1.11** as a template to complete the following actions.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| STU\_ID | STU\_NAME | CLASS\_CODE | CLASS\_NAME | CLASS\_CREDHRS | INSTR\_NAME | CLASS\_DAYS | CLASS\_TIMES | ROOM |
| 0998560 | Jake | CSC4500 | Database Design & Implementation | 4 | Casey | TTH | 3:15-5:00 | ICE 212 |
| 0123456 | Mason | CSC4500 | Database Design & Implementation | 4 | Casey | TTH | 3:15-5:00 | ICE 212 |
| 0987654 | Jesus | CSC4500 | Database Design & Implementation | 4 | Casey | TTH | 3:15-5:00 | ICE 212 |

The redundancies that can occur from this design is that the only people’s information that is being implemented is for this class and not anyone else from outside this class. The same problems from the first problem also happened, we were given occurs as well as all the same information is being displayed from CLASS\_CODE – ROOM and we can only use student name and student ID to differentiate each user.

If all of our classes were added there along with my table classmates, there would be even more redundancies due to the fact that our name, and ID numbers would be popping up 4 times when only one time is needed for each person. Along with having to plug everything in separately for each class where if the database could populate just our name and ID number once followed by each class on separate lines then it would make the viewing of the document way nicer. These redundancies and anomalies are caused by a poor choice of design that is causing everything to be jam packed on the page and difficult to read when a lot of stuff is being repeated in the database. By just adding a couple and rechanging the names of some columns it could be a really nice database.