**Joshua Kellum**

**Part one:**

Table

Description automatically generated

1. How many records does the file contain? How many fields are there per record?

7 Records. 5 fields.

1. 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?

You would get duplicates due to multiple addresses being the same and same city. Sort by using two factors, project code and city. Project code prevents duplicates.

1. What data redundancies do you detect? How could those redundancies lead to anomalies?

Project manager, phone number, and address have multiple duplicates. This could lead to issues with sorting by those three redundancies to find specific projects.

**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 |
| 1004873 | Joshua | CSC-4500 | Data Base | 4 | Casey Walters | TTH | 3:15-5:00 | 212 |
| 1008413 | Tony | CSC-4500 | Data Base | 4 | Casey Walters | TTH | 3:15-5:00 | 212 |
| 1008231 | Ricky | CSC-4500 | Data Base | 4 | Casey Walters | TTH | 3:15-5:00 | 212 |

Redundancies: class code, class name, cred hours, instructor name, class days, class times, and room are all the same data.

Anomalies: If you do not sort by student name or student ID you will struggle to find specific data points due to all the duplicates.