## Cis 310 assignment 1 Jacob Forcht 1/17/2021

- 1. The file contains 7 records and 5 fields
- 2. City is included in a bulk of data in the manager address field, it would be wise to create a sperate field for city if one wanted to sort the data by city
- 3. If I wanted to sort the data by last name, area code, city, state, or zip code, they would have to separate the address field and create new individual fields for this information.
- 4. A redundant piece of information in this file structure would be the managers information. Every time a manager is mentioned by name their phone number and address are also entered. This is redundant as it happens every time a manger is mentioned, and most managers are mentioned multiple times it would be less redundant to happen a separate table with project manager information and only mention their name on this data sheet. Anomalies could be easily created because of this. If a manager needed a phone number updated, they would have to update every single project where that manager was mentioned, or one manager could have multiple phone numbers thus creating an anomaly.
- 5. In figure P1.5 there are many redundancies the same employees are mentioned multiple times on multiple records along with their employee number and employee phone number. This could be fixed by having a separate data sheet for employee information and only mentioning employee id number. This data sheet also list project name and project number multiple times in different records this is redundant and I think only name is needed.

STU_ID	STU_NAME	CLASS_CODE	CLASS_NAME	CLASS_CREDHRS	INSTR_NAME	CLASS_DAYS	CLASS_TIMES	ROOM
5368806	Jacob Forcht	CIS 310	DATABASE DESIGN	3	Haleh Karimi	Monday Wednesday	2:30PM to 3:45PM	Business 008
5368806	Jacob Forcht	CIS 320	SYSTEMS ANAL AND DESIGN	3	Robert Barker	Tuesday Thursday	9:30AM to 10:45AM	Business 008
5368806	Jacob Forcht	CIS 350	INFRASTRUCTURE TECH	3	Jozef Zurada	To be Announced	11:00AM to 12:15pm	Distance Educ
5368806	Jacob Forcht	MGMT 301	MGMT & ORG BEHAVIOR	3	Robert Myers	Monday Wednesday	1:00PM to 2:15PM	Remote
6166301	Alex Merkley	BUS 201	CARRER DEVELOPMENT	3	Gina murphy	F	11:00-12:15	Bus 101
6166301	Alex Merkley	BUS 301	BUSINESS COMMUNICATION	3	brandon hardy	T TH	9:30-10:45	bus 131
6166301	Alex Merkley	CIS 310	DATABASE DESIGN	3	haleh karimi	MW	2:30-3:45	bus 008
6166301	Alex Merkley	CIS 320	SYSTEMS ANALYSIS AND DESI	3	robert barker	MW	9:30-10:45	bus 008
6166301	Alex Merkley	MKT 301	PRINCIPLES OF MARKETING	3	charles sharp	W	5:30-8:15	remote
5071227	Rylan Jaquess	5555	CIS 320	3	Robert barker	Tuesday Thursday	9:30AM to 10:45AM	Business 008
5071227	Rylan Jaquess	2829	CIS 310	3	Haleh Karimi	Monday Wednesday	2:30PM to 3:45PM	Business 009
5071227	Rylan Jaquess	3737	CIS 350	3	Jozef Zurada	Tuesday Thursday	11:00AM to 12:15pm	Remote
5071227	Rylan Jaquess	5139	MKT 301	3	Charles Sharp	Wednesday	5:30 to 8:15pm	Remote

11. I entered the information my teammates gave me exactly as they had entered it. I did not format it the same way as I did so many redundancies and anomalies have occurred. For starters different people entered in data different ways some entered the class days as "Monday Wednesday" whilst some one else entered it as "M W" this creates an anomaly because the same class has now two different class days. The multiple classes are mentioned multiple times so if for example CIS 310's meeting time has to be updated it has to be changed in 3 different records to prevent anomalies occurring. On the last four records class name and class code were entered in a different format which creates anomalies because now it appears that 3 instructors appear to have multiple class codes when it's the same class just a different code format. Format differences also appear in the class time field and the room field. These format differences also create many anomalies