**CS276 Aaron Flager**

**TERM PROJECT IDEAS**

**Concept One: Camp Kirby**

I've previously had the opportunity to run a summer camp for low-income and foster kids called “Camp Kirby”. It has a very disorganized system for handling large amounts of data and I'd greatly like to see if I could envision what a database for the organization might actually look like.

It's run by the Camp Fire organization, similar to Girl/Boy Scouts. It is a nonprofit run by a board and managed by a director during the summers. A heavy emphasis on individual skill building and leadership training is the focus of the camp experience for the kids.

The database I'd like to construct would involve tracking the camper's individual accomplishments and attendance history for the summers they attended Camp Kirby. Each kid can earn badges (or sometimes beads), of various categories, for certain activities they complete. We also like to track how many years they've attended Camp Kirby, if they have passed the swim test, food allergies, which activities they should be restricted from, archery rank progress, etc.

A secondary benefit to this list would be the ability to note which campers attend for multiple weeks and get a more accurate reading of what attendance numbers look like from year to year. Often it's just been managed on the fly by office staff via shuffling around tons of paperwork and has been very inefficient and somewhat inaccurate.

Tables could include: Camper, Accomplishments, Counselor, Assigned (as a join table), Camp Fire Club, Activity, and numerous others depending on the desired complexity of the information.

**Concept Two: ACA Compliance**

Another experience I've had is working for an organization that assesses businesses to see if they are Affordable Care Act (ACA) compliant in order to reduce the penalties the company may be assessed.

The business I worked with was trying to manage all their information through excel spreadsheets and was slowly working towards developing the concept of a database. I'd like to see if I could come up with my own version of what their database should look like.

The purpose of the database would be to eventually be able to provide a comprehensive report for a business that lets them know if they're keeping up to code or if they should expect to be penalized by the IRS. Each business tracked needs to know numerous facts about their employees health care in order to properly assess if the coverage the company is offering is acceptable. Businesses can be comprised of several entities, which when combined need to have at least 50 full time employees to qualify as an applicable large employer for ACA purposes. There are two primary measurement methods, the look-back and monthly methods, that require different data sets depending on how you want to assess if your employees were properly covered.

Tables could include: Business, Entity, Employee, Health Care Provider, Health Insurance, etc.

**Concept Three: Computer Repair Company**

Previously I've helped a friend start up their own computer repair business. Although the business wound up not working out for him, I am curious if I could develop a database that would have been helpful in maintaining pertinent information about customers and orders he processed.

When he found a customer he would establish a meet up time and head to their place of residence to fix their technical problems. Originally it was just computers, but wound up expanding to all sorts of electronic devices (phones, printers, tablets). The business also wanted to provide tutoring, or educational seminars, to help others become more tech savvy.

Tables could include: Customer, Device, Work Order, Advertisement, Seminar, Training (as a join table for seminar/device), Payment, etc.